BRITISH OFFICES
LIFE ANNUITY TABLES,
1893

TABLES

DEDUCED FROM THE

GRADUATED EXPERIENCE

OF

LIFE ANNUITANTS

MALE AND FEMALE

SELECT TABLES

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COMPUTED AND PUBLISHED ON THE AUTHORITY AND UNDER THE SUPERINTENDENCE OF

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AND

THE FACULTY OF ACTUARIES IN SCOTLAND.

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THE

INSTITUTE OF ACTUARIES' AND FACULTY OF ACTUARIES' JOINT COMMITTEE ON MORTALITY INVESTIGATION.

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INTRODUCTION.

THE tables included in the present volume, — THE BRITISH OFFICES LIFE ANNUITY TABLES, 1893—are derived from the Unadjusted Data previously published by the Joint Committee, representing the experience of British Offices in respect of Life Annuitants, Male and Female, during the period 1863–1893. The tables now published comprise the mortality tables graduated by Mr. G. F. HARDY, with the usual elementary values; also commutation tables, and values of annuities on single lives, and on two joint lives, computed at different rates of interest; with discrimination of sex throughout.

The graduation has been performed in such a manner as to indicate separately the mortality during each of the first five years following the date of purchase, and, in a combined table, the mortality at later durations. For single lives, the commutation tables and annuity values (at certain rates of interest), as well as the mortality functions, are set out in the form of "Extended" or "Select" tables. For joint lives, the annuities are tabulated both as "Select" values (computed as at date of purchase), and as "Ultimate" values (computed as at five years after purchase); the latter being distinguished by the employment of heavier type.

The detailed account of the processes and methods followed in the graduation, and also in the construction of the monetary tables, will be included in a later volume; but it should here be stated that, in the graduation of the table for Male lives, Makeham's first modification of Gompertz's law has been applied, the formulæ employed, and the values of the several constants, being as specified on page 1. The "Law of Uniform Seniority" therefore applies at all ages, *and at all durations from purchase*, under the MALE table. In the table for Female lives, the graduation has been performed by similar methods, but with the introduction of a "supplementary series"; the formulæ employed, and the values of the several constants, being set forth on page 43. **The "Law of Uniform Seniority" does not apply under the Female table.**

In the joint annuity tables, the values for two lives, at $2\frac{1}{2}$, 3, and $3\frac{1}{2}$ per cent. interest, are given at all ages of (y), and quinquennial ages of (x), while at 4 and 5 per cent. interest, only the values at equal ages are included. Methods of deducing values not given in the tables are stated and illustrated in the Memorandum (with examples) on pages 229–233, for which the Joint Committee are indebted to Mr. G. J. LIDSTONE.

The Committee have adopted the "open" or "initial" form of $N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$; and a note has been added, upon each page which includes these values, directing special attention to the form of tabulation adopted. The Expectations of Life, as given on pages 18, 19, and 60, 61, are throughout curtate.

The tables published on pages 20 to 41, and 62 to 187, were computed in Scotland, under the honorary supervision of Mr. J. CHATHAM. The remaining Tables were computed by a staff in London.

WM. HUGHES,
President of the Institute of Actuaries.

GEO. M. LOW,
President of the Faculty of Actuaries.

29th December, 1902.

SYNOPSIS OF TABLES.

SINGLE LIFE TABLES.

Functions Tabulated		Males			Females		
		pp.			pp.		
$l_{[x]+t}$	For values of t = 0, 1, 2, 3, 4, and 5 and upwards.	2– 3			44–45		
$\log l_{[x]+t}$		4– 5			46–47		
$d_{[x]+t}$		6– 7			48–49		
$\log d_{[x]+t}$		8– 9			50–51		
$p_{[x]+t}$		10–11			52–53		
$\log p_{[x]+t}$		12–13			54–55		
$q_{[x]+t}$		14–15			56–57		
$\log q_{[x]+t}$		16–17			58–59		
$e_{[x]+t}$		18–19			60–61		
		2½%	3%	3½%	2½%	3%	3½%
		pp.	pp.	pp.	pp.	pp.	pp.
$D_{[x]+t}$		20–21	26–27	32–33	62–63	68–69	74–75
$N_{[x]+t}$		22–23	28–29	34–35	64–65	70–71	76–77
$a_{[x]+t}$		24–25	30–31	36–37	66–67	72–73	78–79
		2½, 2¾, 3½%		4, 4½, 5%	2½, 2¾, 3½%		4, 4½, 5%
$a_{[x]}$, a_x		pp. 38–39		pp. 40–41	pp. 80–81		pp. 82–83

TWO-LIFE TABLES:—JOINT ANNUITY VALUES: $a_{[xy]}$, a_{xy}.

Difference in Age	Two Males			Two Females			Male and Female: Female the Elder			Male and Female: Male the Elder		
	2½, 3, 3½%	4%	5%	2½, 3, 3½%	4%	5%	2½, 3, 3½%	4%	5%	2½, 3, 3½%	4%	5%
	pp.	pp.	pp.	pp.	pp.	pp.	pp.	pp.	pp.	pp.	pp.	pp.
0 Years	86–87	—	—	112–113	—	—	138–139	—	—	164–165	—	—
5 ,,	88–89	—	—	114–115	—	—	140–141	—	—	166–167	—	—
10 ,,	90–91	—	—	116–117	—	—	142–143	—	—	168–169	—	—
15 ,,	92–93	—	—	118–119	—	—	144–145	—	—	170–171	—	—
20 ,,	94–95	—	—	120–121	—	—	146–147	—	—	172–173	—	—
25 ,,	96–97	—	—	122–123	—	—	148–149	—	—	174–175	—	—
30 ,,	98–99	—	—	124–125	—	—	150–151	—	—	176–177	—	—
35 ,,	100–101	—	—	126–127	—	—	152–153	—	—	178–179	—	—
40 ,,	102	—	—	128	—	—	154	—	—	180	—	—
45 ,,	103	—	—	129	—	—	155	—	—	181	—	—
50 ,,	104	—	—	130	—	—	156	—	—	182	—	—
55 ,,	105	—	—	131	—	—	157	—	—	183	—	—
60 ,,	106	—	—	132	—	—	158	—	—	184	—	—
65 ,,	107	—	—	133	—	—	159	—	—	185	—	—
70 ,,	108	—	—	134	—	—	160	—	—	186	—	—
75 ,,	109	—	—	135	—	—	161	—	—	187	—	—
$a_{[xx]}$, a_{xx}	192–203	204–207	208–211	—	212–215	216–219	—	220–223	224–227	—	220–223	224–227

Uniform Seniority Table. Two Males.—Applicable to the calculation of select and ultimate values at all ages and all rates of interest and all values of t . . . p. 190.

BRITISH OFFICES LIFE ANNUITY TABLES, 1893.

SINGLE LIVES—MALES.

THE following relations subsist in the graduated Mortality Table :—

$$\log l_{[x]+t} = \log k_t + (x+t)\log s + c^{x+t}\log g_t$$

$$\mu_{[x]+t} = -\frac{d}{dt}\log_e l_{[x]+t} = \mathrm{A}_t + \mathrm{B}_t c^{x+t}$$

$$\mathrm{col}_{10}(p_{[x]+t}) = -\Delta_t \log_{10} l_{[x]+t} = a_t + \beta_t c^{x+t}$$

where $\log k$, $\log g$, A, B, and a, β, are constant for all values of x (the age at purchase), but vary with t (the duration from purchase) ; while $\log s$, and c, are constant for all values of x and t. The values of these several quantities are stated below :—

$t=$	0	1	2	3	4	5 and upwards
A_t	·001 934 171	·002 440 740	·003 453 878	·004 467 015	·005 480 153	·005 986 721
B_t	·000 064 712	·000 080 548	·000 094 087	·000 105 601	·000 112 362	·000 115 335
a_t	·000 950	·001 280	·001 720	·002 160	·002 490	·002 600
β_t	·000 033 109	·000 039 756	·000 045 425	·000 049 528	·000 051 700	·000 052 346
$\log_{10}\mathrm{B}_t$	$\bar{5}$·810 983	$\bar{5}$·906 057	$\bar{5}$·973 528	$\bar{4}$·023 667	$\bar{4}$·050 619	$\bar{4}$·061 960
$\log_{10}\beta_t$	$\bar{5}$·519 944	$\bar{5}$·599 407	$\bar{5}$·657 296	$\bar{5}$·694 849	$\bar{5}$·713 495	$\bar{5}$·718 884
$\log_{10}k_t$	5·055 558	5·057 208	5·058 528	5·059 408	5·059 848	5·059 958
$\log_{10}g_t$	– ·000 618 263	– ·000 596 801	– ·000 583 227	– ·000 575 983	– ·000 573 106	– ·000 572 460

ABSOLUTE CONSTANTS.

$c = 1{\cdot}091\,440\,4$; $\log_{10}c = {\cdot}038$; $\log_e c = {\cdot}087\,498\,2$; $\log_{10}s = -a_5 = -{\cdot}002\,600$.

The values of $\log l_{[x]+t}$ form the fundamental basis of the following Mortality and Monetary Tables.

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$l_{[x]}$	$l_{[x]+1}$	$l_{[x]+2}$	$l_{[x]+3}$	$l_{[x]+4}$	l_{x+5}	$x+5$
20	100000	99738	99387	98923	98349	97691	25
21	99329	99064	98711	98244	97665	97004	26
22	98655	98388	98031	97561	96978	96312	27
23	97979	97709	97349	96874	96286	95615	28
24	97299	97026	96662	96182	95589	94911	29
25	96616	96339	95970	95485	94885	94201	30
26	95928	95647	95273	94781	94175	93483	31
27	95235	94950	94569	94071	93457	92756	32
28	94536	94245	93859	93353	92730	92020	33
29	93829	93534	93141	92626	91994	91273	34
30	93116	92815	92414	91890	91247	90514	35
31	92394	92086	91677	91143	90489	89743	36
32	91663	91347	90929	90384	89717	88957	37
33	90921	90598	90169	89612	88931	88155	38
34	90166	89836	89396	88826	88129	87336	39
35	89400	89060	88608	88023	87309	86497	40
36	88620	88269	87805	87204	86471	85639	41
37	87823	87462	86983	86365	85612	84757	42
38	87011	86637	86142	85505	84731	83852	43
39	86179	85792	85281	84623	83825	82920	44
40	85327	84926	84396	83716	82893	81959	45
41	84453	84037	83487	82783	81932	80968	46
42	83555	83122	82551	81822	80941	79944	47
43	82631	82180	81586	80829	79916	78883	48
44	81678	81208	80590	79803	78856	77785	49
45	80696	80205	79560	78741	77757	76645	50
46	79680	79168	78494	77641	76617	75462	51
47	78630	78093	77390	76499	75433	74232	52
48	77541	76980	76243	75314	74203	72952	53
49	76413	75824	75053	74081	72922	71619	54
50	75240	74622	73815	72799	71589	70231	55
51	74022	73373	72526	71463	70201	68785	56
52	72754	72073	71185	70073	68753	67276	57
53	71434	70719	69787	68623	67245	65704	58
54	70060	69309	68331	67111	65672	64065	59
55	68627	67838	66812	65536	64032	62356	60
56	67134	66305	65229	63893	62323	60577	61
57	65577	64707	63578	62181	60543	58724	62
58	63954	63040	61858	60398	58690	56799	63
59	62262	61304	60067	58542	56763	54799	64

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$l_{[x]}$	$l_{[x]+1}$	$l_{[x]+2}$	$l_{[x]+3}$	$l_{[x]+4}$	l_{x+5}	$x+5$
60	60500	59497	58203	56613	54763	52725	65
61	58665	57616	56265	54609	52689	50579	66
62	56758	55662	54254	52532	50542	48362	67
63	54776	53634	52169	50383	48325	46079	68
64	52722	51533	50012	48164	46041	43734	69
65	50594	49360	47785	45878	43696	41333	70
66	48397	47120	45493	43531	41294	38884	71
67	46133	44814	43140	41128	38845	36396	72
68	43806	42450	40733	38678	36358	33881	73
69	41423	40033	38280	36190	33842	31351	74
70	38991	37573	35790	33675	31312	28820	75
71	36519	35080	33276	31147	28782	26305	76
72	34019	32564	30749	28619	26268	23823	77
73	31502	30041	28226	26107	23787	21392	78
74	28983	27524	25721	23630	21357	19031	79
75	26477	25031	23253	21206	18998	16760	80
76	24002	22580	20840	18853	16729	14598	81
77	21576	20188	18502	16591	14568	12561	82
78	19217	17876	16257	14438	12534	10668	83
79	16945	15662	14124	12413	10642	8930	84
80	14780	13565	12121	10532	8907	7359	85
81	12737	11601	10263	8807	7338	5961	86
82	10835	9786	8564	7249	5943	4739	87
83	9086	8133	7032	5864	4723	3691	88
84	7502	6648	5674	4656	3678	2812	89
85	6090	5339	4492	3621	2801	2091	90
86	4853	4204	3483	2754	2082	1513	91
87	3790	3241	2640	2044	1507	1064	92
88	2895	2441	1952	1477	1059	725	93
89	2159	1793	1405	1036	721	477	94
90	1568	1280	982	705	475	303	95
91	1107	887	664	463	301	184	96
92	757	595	434	292	183	107	97
93	501	385	273	177	106	59	98
94	319	239	164	103	59	31	99
95	195	143	95	57	31	15	100
96	114	81	52	30	15	7	101
97	64	44	27	15	7	3	102
98	33	22	13	7	3	1	103
99	17	11	6	3	1	0	104

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log l_{[x]}$	$\log l_{[x]+1}$	$\log l_{[x]+2}$	$\log l_{[x]+3}$	$\log l_{[x]+4}$	$\log l_{x+5}$	$x+5$
20	5·00000	4·99886	4·99733	4·99530	4·99277	4·98986	25
21	4·99708	·99592	·99437	·99230	·98974	·98679	26
22	·99412	·99294	·99137	·98928	·98667	·98368	27
23	·99113	·98994	·98833	·98621	·98356	·98052	28
24	·98811	·98689	·98526	·98309	·98041	·97732	29
25	·98505	·98380	·98214	·97993	·97720	·97406	30
26	·98195	·98067	·97897	·97672	·97394	·97073	31
27	·97880	·97749	·97575	·97346	·97061	·96734	32
28	·97560	·97426	·97248	·97013	·96722	·96388	33
29	·97234	·97097	·96914	·96674	·96376	·96034	34
30	·96902	·96762	·96574	·96327	·96022	·95672	35
31	·96564	·96419	·96226	·95972	·95659	·95300	36
32	·96219	·96070	·95870	·95609	·95287	·94918	37
33	·95866	·95712	·95506	·95237	·94905	·94525	38
34	·95505	·95345	·95132	·94854	·94512	·94119	39
35	·95134	·94968	·94747	·94460	·94106	·93700	40
36	·94753	·94581	·94352	·94053	·93687	·93267	41
37	·94361	·94182	·93943	·93634	·93254	·92818	42
38	·93957	·93770	·93522	·93199	·92804	·92351	43
39	·93540	·93345	·93085	·92749	·92338	·91866	44
40	·93109	·92904	·92632	·92281	·91852	·91360	45
41	·92662	·92447	·92162	·91794	·91346	·90831	46
42	·92197	·91972	·91672	·91287	·90817	·90278	47
43	·91714	·91477	·91162	·90757	·90264	·89699	48
44	·91211	·90960	·90628	·90202	·89683	·89090	49
45	·90685	·90420	·90070	·89620	·89074	·88449	50
46	·90135	·89855	·89484	·89009	·88433	·87773	51
47	·89559	·89261	·88868	·88366	·87756	·87059	52
48	·88953	·88638	·88220	·87687	·87042	·86304	53
49	·88317	·87981	·87537	·86971	·86286	·85503	54
50	·87645	·87287	·86814	·86212	·85485	·84653	55
51	·86936	·86554	·86050	·85408	·84634	·83749	56
52	·86186	·85777	·85239	·84555	·83729	·82786	57
53	·85391	·84954	·84378	·83647	·82766	·81759	58
54	·84547	·84079	·83462	·82680	·81738	·80662	59
55	·83650	·83147	·82485	·81648	·80640	·79488	60
56	·82694	·82155	·81444	·80545	·79465	·78231	61
57	·81675	·81095	·80331	·79366	·78206	·76882	62
58	·80587	·79962	·79140	·78102	·76856	·75434	63
59	·79422	·78749	·77864	·76747	·75407	·73877	64

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log l_{[x]}$	$\log l_{[x]+1}$	$\log l_{[x]+2}$	$\log l_{[x]+3}$	$\log l_{[x]+4}$	$\log l_{x+5}$	$x+5$
60	4·78175	4·77449	4·76495	4·75292	4·73849	4·72202	65
61	·76838	·76055	·75024	·73727	·72172	·70397	66
62	·75402	·74556	·73443	·72043	·70365	·68451	67
63	·73859	·72944	·71741	·70228	·68417	·66350	68
64	·72199	·71208	·69907	·68272	·66315	·64082	69
65	·70410	·69338	·67929	·66160	·64044	·61630	70
66	·68482	·67320	·65794	·63879	·61589	·58977	71
67	·66401	·65142	·63488	·61414	·58934	·56106	72
68	·64153	·62788	·60995	·58746	·56060	·52995	73
69	·61724	·60242	·58297	·55859	·52946	·49625	74
70	·59097	·57488	·55377	·52731	·49572	·45969	75
71	·56252	·54506	·52213	·49341	·45913	·42003	76
72	·53172	·51274	·48783	·45665	·41943	·37699	77
73	·49834	·47771	·45064	·41676	·37633	·33024	78
74	·46214	·43971	·41029	·37347	·32954	·27946	79
75	·42287	·39848	·36648	·32645	·27870	·22428	80
76	·38025	·35372	·31891	·27537	·22346	·16428	81
77	·33397	·30509	·26722	·21986	·16340	·09904	82
78	·28369	·25226	·21104	·15951	·09808	·02806	83
79	·22905	·19484	·14997	·09388	·02703	3·95084	84
80	·16966	·13241	·08355	·02249	3·94973	·86679	85
81	·10507	·06450	·01129	3·94481	·86559	·77530	86
82	·03482	3·99062	3·93266	·86026	·77399	·67567	87
83	3·95838	·91022	·84708	·76822	·67426	·56718	88
84	·87518	·82271	·75391	·66800	·56564	·44900	89
85	·78462	·72744	·65247	·55885	·44733	·32025	90
86	·68601	·62369	·54198	·43996	·31844	·17997	91
87	·57863	·51069	·42163	·31043	·17800	·02709	92
88	·46166	·38760	·29051	·16930	·02496	2·86048	93
89	·33423	·25349	·14763	·01551	2·85816	·67887	94
90	·19540	·10735	2·99194	2·84788	·67635	·48089	95
91	·04410	2·94809	·82224	·66517	·47815	·26504	96
92	2·87920	·77450	·63726	·46599	·26206	·02970	97
93	·69947	·58528	·43561	·24883	·02645	1·77307	98
94	·50354	·37900	·21575	·01205	1·76954	·49321	99
95	·28993	·15409	1·97603	1·75386	·48937	·18801	100
96	·05702	1·90885	·71463	·47230	·18382	0·85513	101
97	1·80306	·64142	·42956	·16523	0·85057	·49205	102
98	·52611	·34978	·11866	0·83032	·48709	·09601	103
99	·22407	·03171	0·77957	·46503	·09060	$\bar{1}$·66399	104

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$d_{[x]}$	$d_{[x]+1}$	$d_{[x]+2}$	$d_{[x]+3}$	$d_{[x]+4}$	d_{x+5}	$x+5$
20	262	351	464	574	658	687	25
21	265	353	467	579	661	692	26
22	267	357	470	583	666	697	27
23	270	360	475	588	671	704	28
24	273	364	480	593	678	710	29
25	277	369	485	600	684	718	30
26	281	374	492	606	692	727	31
27	285	381	498	614	701	736	32
28	291	386	506	623	710	747	33
29	295	393	515	632	721	759	34
30	301	401	524	643	733	771	35
31	308	409	534	654	746	786	36
32	316	418	545	667	760	802	37
33	323	429	557	681	776	819	38
34	330	440	570	697	793	839	39
35	340	452	585	714	812	858	40
36	351	464	601	733	832	882	41
37	361	479	618	753	855	905	42
38	374	495	637	774	879	932	43
39	387	511	658	798	905	961	44
40	401	530	680	823	934	991	45
41	416	550	704	851	964	1024	46
42	433	571	729	881	997	1061	47
43	451	594	757	913	1033	1098	48
44	470	618	787	947	1071	1140	49
45	491	645	819	984	1112	1183	50
46	512	674	853	1024	1155	1230	51
47	537	703	891	1066	1201	1280	52
48	561	737	929	1111	1251	1333	53
49	589	771	972	1159	1303	1388	54
50	618	807	1016	1210	1358	1446	55
51	649	847	1063	1262	1416	1509	56
52	681	888	1112	1320	1477	1572	57
53	715	932	1164	1378	1541	1639	58
54	751	978	1220	1439	1607	1709	59
55	789	1026	1276	1504	1676	1779	60
56	829	1076	1336	1570	1746	1853	61
57	870	1129	1397	1638	1819	1925	62
58	914	1182	1460	1708	1891	2000	63
59	958	1237	1525	1779	1964	2074	64

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase: 0	1	2	3	4	5 or more	Age Attained
$[x]$	$d_{[x]}$	$d_{[x]+1}$	$d_{[x]+2}$	$d_{[x]+3}$	$d_{[x]+4}$	d_{x+5}	$x+5$
60	1003	1294	1590	1850	2038	2146	65
61	1049	1351	1656	1920	2110	2217	66
62	1096	1408	1722	1990	2180	2283	67
63	1142	1465	1786	2058	2246	2345	68
64	1189	1521	1848	2123	2307	2401	69
65	1234	1575	1907	2182	2363	2449	70
66	1277	1627	1962	2237	2410	2488	71
67	1319	1674	2012	2283	2449	2515	72
68	1356	1717	2055	2320	2477	2530	73
69	1390	1753	2090	2348	2491	2531	74
70	1418	1783	2115	2363	2492	2515	75
71	1439	1804	2129	2365	2477	2482	76
72	1455	1815	2130	2351	2445	2431	77
73	1461	1815	2119	2320	2395	2361	78
74	1459	1803	2091	2273	2326	2271	79
75	1446	1778	2047	2208	2238	2162	80
76	1422	1740	1987	2124	2131	2037	81
77	1388	1686	1911	2023	2007	1893	82
78	1341	1619	1819	1904	1866	1738	83
79	1283	1538	1711	1771	1712	1571	84
80	1215	1444	1589	1625	1548	1398	85
81	1136	1338	1456	1469	1377	1222	86
82	1049	1222	1315	1306	1204	1048	87
83	953	1101	1168	1141	1032	879	88
84	854	974	1018	978	866	721	89
85	751	847	871	820	710	578	90
86	649	721	729	672	569	449	91
87	549	601	596	537	443	339	92
88	454	489	475	418	334	248	93
89	366	388	369	315	244	174	94
90	288	298	277	230	172	119	95
91	220	223	201	162	117	77	96
92	162	161	142	109	76	48	97
93	116	112	96	71	47	28	98
94	80	75	61	44	28	16	99
95	52	48	38	26	16	8	100
96	33	29	22	15	8	4	101
97	20	17	12	8	4	2	102
98	11	9	6	4	2	1	103
99	6	5	3	2	1	0	104

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log d_{[x]}$	$\log d_{[x]+1}$	$\log d_{[x]+2}$	$\log d_{[x]+3}$	$\log d_{[x]+4}$	$\log d_{x+5}$	$x+5$
20	2·41830	2·54531	2·66652	2·75891	2·81823	2·83696	25
21	·42325	·54777	·66932	·76268	·82020	·84011	26
22	·42651	·55267	·67210	·76567	·82347	·84323	27
23	·43136	·55630	·67669	·76938	·82672	·84757	28
24	·43616	·56110	·68124	·77305	·83123	·85126	29
25	·44248	·56703	·68574	·77815	·83506	·85612	30
26	·44871	·57287	·69197	·78247	·84011	·86153	31
27	·45484	·58093	·69723	·78817	·84572	·86688	32
28	·46389	·58659	·70415	·79449	·85126	·87332	33
29	·46982	·59439	·71181	·80072	·85794	·88024	34
30	·47857	·60314	·71933	·80821	·86510	·88705	35
31	·48855	·61172	·72754	·81558	·87274	·89542	36
32	·49969	·62118	·73640	·82413	·88081	·90417	37
33	·50920	·63246	·74586	·83315	·88986	·91328	38
34	·51851	·64345	·75587	·84323	·89927	·92376	39
35	·53148	·65514	·76716	·85370	·90956	·93349	40
36	·54531	·66652	·77887	·86510	·92012	·94547	41
37	·55751	·68034	·79099	·87680	·93197	·95665	42
38	·57287	·69461	·80414	·88874	·94399	·96942	43
39	·58771	·70842	·81823	·90200	·95665	·98272	44
40	·60314	·72428	·83251	·91540	·97035	·99607	45
41	·61909	·74036	·84757	·92993	·98408	3·01030	46
42	·63649	·75664	·86273	·94498	·99870	·02572	47
43	·65418	·77379	·87910	·96047	3·01410	·04060	48
44	·67210	·79099	·89597	·97635	·02979	·05690	49
45	·69108	·80956	·91328	·99300	·04610	·07298	50
46	·70927	·82866	·93095	3·01030	·06258	·08991	51
47	·72997	·84696	·94988	·02776	·07954	·10721	52
48	·74896	·86747	·96802	·04571	·09726	·12483	53
49	·77012	·88705	·98767	·06408	·11494	·14239	54
50	·79099	·90687	3·00689	·08279	·13290	·16017	55
51	·81224	·92788	·02653	·10106	·15106	·17869	56
52	·83315	·94841	·04610	·12057	·16938	·19645	57
53	·85431	·96942	·06595	·13925	·18780	·21458	58
54	·87564	·99034	·08636	·15806	·20602	·23274	59
55	·89708	3·01115	·10585	·17725	·22427	·25018	60
56	·91855	·03181	·12581	·19590	·24204	·26788	61
57	·93952	·05269	·14520	·21431	·25983	·28443	62
58	·96095	·07262	·16435	·23249	·27669	·30103	63
59	·98137	·09237	·18327	·25018	·29314	·31681	64

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log d_{[x]}$	$\log d_{[x]+1}$	$\log d_{[x]+2}$	$\log d_{[x]+3}$	$\log d_{[x]+4}$	$\log d_{x+5}$	$x+5$
60	3·00130	3·11193	3·20140	3·26717	3·30920	3·33163	65
61	·02078	·13066	·21906	·28330	·32428	·34577	66
62	·03981	·14860	·23603	·29885	·33846	·35851	67
63	·05767	·16584	·25188	·31345	·35141	·37014	68
64	·07518	·18213	·26670	·32695	·36305	·38039	69
65	·09132	·19728	·28035	·33885	·37346	·38899	70
66	·10619	·21139	·29270	·34967	·38202	·39585	71
67	·12024	·22376	·30363	·35851	·38899	·40054	72
68	·13226	·23477	·31281	·36549	·39393	·40312	73
69	·14301	·24378	·32015	·37070	·39637	·40329	74
70	·15168	·25115	·32531	·37346	·39655	·40054	75
71	·15806	·25624	·32818	·37383	·39393	·39480	76
72	·16286	·25888	·32838	·37125	·38828	·38579	77
73	·16465	·25888	·32613	·36549	·37931	·37310	78
74	·16406	·25600	·32035	·35660	·36661	·35622	79
75	·16017	·24993	·31112	·34400	·34986	·33486	80
76	·15290	·24055	·29820	·32715	·32858	·30899	81
77	·14239	·22686	·28126	·30600	·30255	·27715	82
78	·12743	·20925	·25983	·27967	·27091	·24005	83
79	·10823	·18696	·23325	·24822	·23350	·19618	84
80	·08458	·15957	·20112	·21085	·18977	·14551	85
81	·05538	·12646	·16316	·16702	·13893	·08707	86
82	·02078	·08707	·11893	·11594	·08063	·02036	87
83	2·97909	·04179	·06744	·05729	·01368	2·94399	88
84	·93146	2·98856	·00775	2·99034	2·93752	·85794	89
85	·87564	·92788	2·94002	·91381	·85126	·76193	90
86	·81224	·85794	·86273	·82737	·75511	·65225	91
87	·73957	·77887	·77525	·72997	·64640	·53020	92
88	·65706	·68931	·67669	·62118	·52375	·39445	93
89	·56348	·58883	·56703	·49831	·38739	·24055	94
90	·45939	·47422	·44248	·36173	·23553	·07555	95
91	·34242	·34830	·30320	·20952	·06819	1·88649	96
92	·20952	·20683	·15229	·03743	1·88081	·68124	97
93	·06446	·04922	1·98227	1·85126	·67210	·44716	98
94	1·90309	1·87506	·78533	·64345	·44716	·20412	99
95	·71600	·68124	·57978	·41497	·20412	0·90309	100
96	·51851	·46240	·34242	·17609	0·90309	·60206	101
97	·30103	·23045	·07918	0·90309	·60206	·30103	102
98	·04139	0·95424	0·77815	·60206	·30103	·00000	103
99	0·77815	·69897	·47712	·30103	·00000	...	104

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$p_{[x]}$	$p_{[x]+1}$	$p_{[x]+2}$	$p_{[x]+3}$	$p_{[x]+4}$	p_{x+5}	$x+5$
20	·99738	·99648	·99534	·99419	·99332	·99296	25
21	·99733	·99644	·99525	·99412	·99323	·99286	26
22	·99729	·99639	·99520	·99401	·99314	·99275	27
23	·99726	·99630	·99513	·99392	·99302	·99266	28
24	·99719	·99625	·99502	·99385	·99291	·99252	29
25	·99713	·99619	·99492	·99373	·99280	·99236	30
26	·99706	·99609	·99483	·99362	·99264	·99222	31
27	·99699	·99600	·99474	·99346	·99250	·99206	32
28	·99692	·99591	·99460	·99332	·99234	·99188	33
29	·99685	·99580	·99449	·99316	·99216	·99170	34
30	·99678	·99568	·99433	·99300	·99197	·99147	35
31	·99667	·99557	·99417	·99282	·99177	·99124	36
32	·99658	·99541	·99401	·99261	·99154	·99099	37
33	·99646	·99527	·99383	·99238	·99129	·99070	38
34	·99632	·99511	·99362	·99216	·99099	·99040	39
35	·99619	·99492	·99341	·99188	·99070	·99008	40
36	·99605	·99474	·99314	·99161	·99038	·98971	41
37	·99589	·99451	·99291	·99129	·99001	·98930	42
38	·99570	·99431	·99259	·99095	·98962	·98889	43
39	·99552	·99403	·99229	·99058	·98919	·98842	44
40	·99529	·99376	·99195	·99017	·98874	·98789	45
41	·99506	·99346	·99156	·98974	·98821	·98735	46
42	·99483	·99312	·99117	·98924	·98767	·98676	47
43	·99456	·99277	·99072	·98871	·98707	·98608	48
44	·99424	·99238	·99024	·98812	·98644	·98535	49
45	·99392	·99197	·98969	·98751	·98571	·98456	50
46	·99357	·99149	·98912	·98682	·98492	·98369	51
47	·99316	·99099	·98851	·98605	·98408	·98277	52
48	·99277	·99042	·98780	·98526	·98315	·98173	53
49	·99229	·98983	·98705	·98435	·98213	·98062	54
50	·99179	·98917	·98623	·98340	·98102	·97940	55
51	·99124	·98846	·98533	·98234	·97983	·97807	56
52	·99063	·98769	·98437	·98116	·97852	·97663	57
53	·98999	·98682	·98331	·97992	·97708	·97506	58
54	·98928	·98589	·98215	·97854	·97553	·97333	59
55	·98848	·98487	·98091	·97706	·97382	·97147	60
56	·98767	·98376	·97951	·97544	·97199	·96942	61
57	·98673	·98256	·97803	·97364	·96997	·96721	62
58	·98571	·98125	·97638	·97172	·96779	·96478	63
59	·98462	·97983	·97461	·96962	·96538	·96217	64

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase: 0	1	2	3	4	5 or more	Age Attained
$[x]$	$p_{[x]}$	$p_{[x]+1}$	$p_{[x]+2}$	$p_{[x]+3}$	$p_{[x]+4}$	p_{x+5}	$x+5$
60	·98342	·97827	·97268	·96732	·96279	·95929	65
61	·98213	·97654	·97058	·96483	·95995	·95618	66
62	·98071	·97470	·96828	·96210	·95689	·95277	67
63	·97915	·97268	·96576	·95916	·95352	·94912	68
64	·97744	·97049	·96305	·95594	·94988	·94510	69
65	·97562	·96808	·96009	·95245	·94593	·94074	70
66	·97360	·96547	·95686	·94864	·94163	·93603	71
67	·97143	·96263	·95337	·94450	·93696	·93087	72
68	·96906	·95956	·94953	·94003	·93186	·92534	73
69	·96645	·95620	·94541	·93513	·92638	·91926	74
70	·96363	·95255	·94089	·92984	·92039	·91273	75
71	·96059	·94857	·93601	·92410	·91390	·90565	76
72	·95724	·94426	·93072	·91787	·90690	·89795	77
73	·95361	·93957	·92495	·91111	·89931	·88965	78
74	·94966	·93450	·91871	·90380	·89109	·88068	79
75	·94539	·92897	·91195	·89588	·88223	·87096	80
76	·94074	·92298	·90461	·88734	·87261	·86052	81
77	·93566	·91649	·89669	·87809	·86226	·84922	82
78	·93019	·90945	·88812	·86810	·85110	·83711	83
79	·92425	·90184	·87884	·85733	·83909	·82404	84
80	·91780	·89359	·86884	·84575	·82615	·81005	85
81	·91081	·88469	·85806	·83326	·81229	·79501	86
82	·90323	·87506	·84645	·81984	·79741	·77895	87
83	·89504	·86469	·83395	·80545	·78148	·76176	88
84	·88620	·85349	·82052	·79002	·76447	·74345	89
85	·87664	·84145	·80608	·77354	·74631	·72397	90
86	·86632	·82850	·79064	·75593	·72699	·70327	91
87	·85518	·81459	·77411	·73717	·70646	·68138	92
88	·84322	·79967	·75647	·71723	·68473	·65825	93
89	·83035	·78368	·73770	·69607	·66177	·63390	94
90	·81649	·76664	·71770	·67371	·63759	·60835	95
91	·80166	·74843	·69651	·65010	·61220	·58165	96
92	·78578	·72905	·67411	·62527	·58565	·55382	97
93	·76879	·70848	·65046	·59927	·55798	·52498	98
94	·75069	·68667	·62560	·57212	·52926	·49522	99
95	·73141	·66365	·59956	·54389	·49962	·46464	100
96	·71094	·63941	·57236	·51466	·46915	·43343	101
97	·68922	·61396	·54409	·48455	·43801	·40175	102
98	·66630	·58733	·51483	·45370	·40637	·36981	103
99	·64216	·55958	·48469	·42225	·37445	...	104

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log p_{[x]}$	$\log p_{[x]+1}$	$\log p_{[x]+2}$	$\log p_{[x]+3}$	$\log p_{[x]+4}$	$\log p_{x+5}$	$x+5$
20	$\bar{1}$·99886	$\bar{1}$·99847	$\bar{1}$·99797	$\bar{1}$·99747	$\bar{1}$·99709	$\bar{1}$·99693	25
21	·99884	·99845	·99793	·99744	·99705	·99689	26
22	·99882	·99843	·99791	·99739	·99701	·99684	27
23	·99881	·99839	·99788	·99735	·99696	·99680	28
24	·99878	·99837	·99783	·99732	·99691	·99674	29
25	·99875	·99834	·99779	·99727	·99686	·99667	30
26	·99872	·99830	·99775	·99722	·99679	·99661	31
27	·99869	·99826	·99771	·99715	·99673	·99654	32
28	·99866	·99822	·99765	·99709	·99666	·99646	33
29	·99863	·99817	·99760	·99702	·99658	·99638	34
30	·99860	·99812	·99753	·99695	·99650	·99628	35
31	·99855	·99807	·99746	·99687	·99641	·99618	36
32	·99851	·99800	·99739	·99678	·99631	·99607	37
33	·99846	·99794	·99731	·99668	·99620	·99594	38
34	·99840	·99787	·99722	·99658	·99607	·99581	39
35	·99834	·99779	·99713	·99646	·99594	·99567	40
36	·99828	·99771	·99701	·99634	·99580	·99551	41
37	·99821	·99761	·99691	·99620	·99564	·99533	42
38	·99813	·99752	·99677	·99605	·99547	·99515	43
39	·99805	·99740	·99664	·99589	·99528	·99494	44
40	·99795	·99728	·99649	·99571	·99508	·99471	45
41	·99785	·99715	·99632	·99552	·99485	·99447	46
42	·99775	·99700	·99615	·99530	·99461	·99421	47
43	·99763	·99685	·99595	·99507	·99435	·99391	48
44	·99749	·99668	·99574	·99481	·99407	·99359	49
45	·99735	·99650	·99550	·99454	·99375	·99324	50
46	·99720	·99629	·99525	·99424	·99340	·99286	51
47	·99702	·99607	·99498	·99390	·99303	·99245	52
48	·99685	·99582	·99467	·99355	·99262	·99199	53
49	·99664	·99556	·99434	·99315	·99217	·99150	54
50	·99642	·99527	·99398	·99273	·99168	·99096	55
51	·99618	·99496	·99358	·99226	·99115	·99037	56
52	·99591	·99462	·99316	·99174	·99057	·98973	57
53	·99563	·99424	·99269	·99119	·98993	·98903	58
54	·99532	·99383	·99218	·99058	·98924	·98826	59
55	·99497	·99338	·99163	·98992	·98848	·98743	60
56	·99461	·99289	·99101	·98920	·98766	·98651	61
57	·99420	·99236	·99035	·98840	·98676	·98552	62
58	·99375	·99178	·98962	·98754	·98578	·98443	63
59	·99327	·99115	·98883	·98660	·98470	·98325	64

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log p_{[x]}$	$\log p_{[x]+1}$	$\log p_{[x]+2}$	$\log p_{[x]+3}$	$\log p_{[x]+4}$	$\log p_{x+5}$	$x+5$
60	$\bar{1}$·99274	$\bar{1}$·99046	$\bar{1}$·98797	$\bar{1}$·98557	$\bar{1}$·98353	$\bar{1}$·98195	65
61	·99217	·98969	·98703	·98445	·98225	·98054	66
62	·99154	·98887	·98600	·98322	·98086	·97899	67
63	·99085	·98797	·98487	·98189	·97933	·97732	68
64	·99009	·98699	·98365	·98043	·97767	·97548	69
65	·98928	·98591	·98231	·97884	·97586	·97347	70
66	·98838	·98474	·98085	·97710	·97388	·97129	71
67	·98741	·98346	·97926	·97520	·97172	·96889	72
68	·98635	·98207	·97751	·97314	·96935	·96630	73
69	·98518	·98055	·97562	·97087	·96679	·96344	74
70	·98391	·97889	·97354	·96841	·96397	·96034	75
71	·98254	·97707	·97128	·96572	·96090	·95696	76
72	·98102	·97509	·96882	·96278	·95756	·95325	77
73	·97937	·97293	·96612	·95957	·95391	·94922	78
74	·97757	·97058	·96318	·95607	·94992	·94482	79
75	·97561	·96800	·95997	·95225	·94558	·94000	80
76	·97347	·96519	·95646	·94809	·94082	·93476	81
77	·97112	·96213	·95264	·94354	·93564	·92902	82
78	·96857	·95878	·94847	·93857	·92998	·92278	83
79	·96579	·95513	·94391	·93315	·92381	·91595	84
80	·96275	·95114	·93894	·92724	·91706	·90851	85
81	·95943	·94679	·93352	·92078	·90971	·90037	86
82	·95580	·94204	·92760	·91373	·90168	·89151	87
83	·95184	·93686	·92114	·90604	·89292	·88182	88
84	·94753	·93120	·91409	·89764	·88336	·87125	89
85	·94282	·92503	·90638	·88848	·87292	·85972	90
86	·93768	·91829	·89798	·87848	·86153	·84712	91
87	·93206	·91094	·88880	·86757	·84909	·83339	92
88	·92594	·90291	·87879	·85566	·83552	·81839	93
89	·91926	·89414	·86788	·84265	·82071	·80202	94
90	·91195	·88459	·85594	·82847	·80454	·78415	95
91	·90399	·87415	·84293	·81298	·78689	·76466	96
92	·89530	·86276	·82873	·79607	·76764	·74337	97
93	·88581	·85033	·81322	·77762	·74662	·72014	98
94	·87546	·83675	·79630	·75749	·72367	·69480	99
95	·86416	·82194	·77783	·73551	·69864	·66712	100
96	·85183	·80578	·75767	·71152	·67131	·63692	101
97	·83836	·78814	·73567	·68534	·64148	·60396	102
98	·82367	·76888	·71166	·65677	·60892	·56798	103
99	·80764	·74786	·68546	·62557	·57339	...	104

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$q_{[x]}$	$q_{[x]+1}$	$q_{[x]+2}$	$q_{[x]+3}$	$q_{[x]+4}$	q_{x+5}	$x+5$
20	·00262	·00352	·00466	·00581	·00668	·00704	25
21	·00267	·00356	·00475	·00588	·00677	·00714	26
22	·00271	·00361	·00480	·00599	·00686	·00725	27
23	·00274	·00370	·00487	·00608	·00698	·00734	28
24	·00281	·00375	·00498	·00615	·00709	·00748	29
25	·00287	·00381	·00508	·00627	·00720	·00764	30
26	·00294	·00391	·00517	·00638	·00736	·00778	31
27	·00301	·00400	·00526	·00654	·00750	·00794	32
28	·00308	·00409	·00540	·00668	·00766	·00812	33
29	·00315	·00420	·00551	·00684	·00784	·00830	34
30	·00322	·00432	·00567	·00700	·00803	·00853	35
31	·00333	·00443	·00583	·00718	·00823	·00876	36
32	·00342	·00459	·00599	·00739	·00846	·00901	37
33	·00354	·00473	·00617	·00762	·00871	·00930	38
34	·00368	·00489	·00638	·00784	·00901	·00960	39
35	·00381	·00508	·00659	·00812	·00930	·00992	40
36	·00395	·00526	·00686	·00839	·00962	·01029	41
37	·00411	·00549	·00709	·00871	·00999	·01070	42
38	·00430	·00569	·00741	·00905	·01038	·01111	43
39	·00448	·00597	·00771	·00942	·01081	·01158	44
40	·00471	·00624	·00805	·00983	·01126	·01211	45
41	·00494	·00654	·00844	·01026	·01179	·01265	46
42	·00517	·00688	·00883	·01076	·01233	·01324	47
43	·00544	·00723	·00928	·01129	·01293	·01392	48
44	·00576	·00762	·00976	·01188	·01356	·01465	49
45	·00608	·00803	·01031	·01249	·01429	·01544	50
46	·00643	·00851	·01088	·01318	·01508	·01631	51
47	·00684	·00901	·01149	·01395	·01592	·01723	52
48	·00723	·00958	·01220	·01474	·01685	·01827	53
49	·00771	·01017	·01295	·01565	·01787	·01938	54
50	·00821	·01083	·01377	·01660	·01898	·02060	55
51	·00876	·01154	·01467	·01766	·02017	·02193	56
52	·00937	·01231	·01563	·01884	·02148	·02337	57
53	·01001	·01318	·01669	·02008	·02292	·02494	58
54	·01072	·01411	·01785	·02146	·02447	·02667	59
55	·01152	·01513	·01909	·02294	·02618	·02853	60
56	·01233	·01624	·02049	·02456	·02801	·03058	61
57	·01327	·01744	·02197	·02636	·03003	·03279	62
58	·01429	·01875	·02362	·02828	·03221	·03522	63
59	·01538	·02017	·02539	·03038	·03462	·03783	64

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$q_{[x]}$	$q_{[x]+1}$	$q_{[x]+2}$	$q_{[x]+3}$	$q_{[x]+4}$	q_{x+5}	$x+5$
60	·01658	·02173	·02732	·03268	·03721	·04071	65
61	·01787	·02346	·02942	·03517	·04005	·04382	66
62	·01929	·02530	·03172	·03790	·04311	·04723	67
63	·02085	·02732	·03424	·04084	·04648	·05088	68
64	·02256	·02951	·03695	·04406	·05012	·05490	69
65	·02438	·03192	·03991	·04755	·05407	·05926	70
66	·02640	·03453	·04314	·05136	·05837	·06397	71
67	·02857	·03737	·04663	·05550	·06304	·06913	72
68	·03094	·04044	·05047	·05997	·06814	·07466	73
69	·03355	·04380	·05459	·06487	·07362	·08074	74
70	·03637	·04745	·05911	·07016	·07961	·08727	75
71	·03941	·05143	·06399	·07590	·08610	·09435	76
72	·04276	·05574	·06928	·08213	·09310	·10205	77
73	·04639	·06043	·07505	·08889	·10069	·11035	78
74	·05034	·06550	·08129	·09620	·10891	·11932	79
75	·05461	·07103	·08805	·10412	·11777	·12904	80
76	·05926	·07702	·09539	·11266	·12739	·13948	81
77	·06434	·08351	·10331	·12191	·13774	·15078	82
78	·06981	·09055	·11188	·13190	·14890	·16289	83
79	·07575	·09816	·12116	·14267	·16091	·17596	84
80	·08220	·10641	·13116	·15425	·17385	·18995	85
81	·08919	·11531	·14194	·16674	·18771	·20499	86
82	·09677	·12494	·15355	·18016	·20259	·22105	87
83	·10496	·13531	·16605	·19455	·21852	·23824	88
84	·11380	·14651	·17948	·20998	·23553	·25655	89
85	·12336	·15855	·19392	·22646	·25369	·27603	90
86	·13368	·17150	·20936	·24407	·27301	·29673	91
87	·14482	·18541	·22589	·26283	·29354	·31862	92
88	·15678	·20033	·24353	·28277	·31527	·34175	93
89	·16965	·21632	·26230	·30393	·33823	·36610	94
90	·18351	·23336	·28230	·32629	·36241	·39165	95
91	·19834	·25157	·30349	·34990	·38780	·41835	96
92	·21422	·27095	·32589	·37473	·41435	·44618	97
93	·23121	·29152	·34954	·40073	·44202	·47502	98
94	·24931	·31333	·37440	·42788	·47074	·50478	99
95	·26859	·33635	·40044	·45611	·50038	·53536	100
96	·28906	·36059	·42764	·48534	·53085	·56657	101
97	·31078	·38604	·45591	·51545	·56199	·59825	102
98	·33370	·41267	·48517	·54630	·59363	·63019	103
99	·35784	·44042	·51531	·57775	·62555	...	104

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log q_{[x]}$	$\log q_{[x]+1}$	$\log q_{[x]+2}$	$\log q_{[x]+3}$	$\log q_{[x]+4}$	$\log q_{x+5}$	$x+5$
20	$\bar{3}$·41830	$\bar{3}$·54654	$\bar{3}$·66839	$\bar{3}$·76418	$\bar{3}$·82478	$\bar{3}$·84757	25
21	·42651	·55145	·67669	·76938	·83059	·85370	26
22	·43297	·55751	·68124	·77743	·83632	·86034	27
23	·43775	·56820	·68753	·78390	·84386	·86570	28
24	·44871	·57403	·69723	·78888	·85065	·87390	29
25	·45788	·58093	·70586	·79727	·85733	·88309	30
26	·46835	·59218	·71349	·80482	·86688	·89098	31
27	·47857	·60206	·72099	·81558	·87506	·89982	32
28	·48855	·61172	·73239	·82478	·88423	·90956	33
29	·49831	·62325	·74115	·83506	·89432	·91908	34
30	·50786	·63548	·75358	·84510	·90472	·93095	35
31	·52244	·64640	·76567	·85612	·91540	·94250	36
32	·53403	·66181	·77743	·86864	·92737	·95472	37
33	·54900	·67486	·79029	·88196	·94002	·96848	38
34	·56585	·68931	·80482	·89432	·95472	·98227	39
35	·58093	·70586	·81889	·90956	·96848	·99651	40
36	·59660	·72099	·83632	·92376	·98318	$\bar{2}$·01242	41
37	·61384	·73957	·85065	·94002	·99957	·02938	42
38	·63347	·75511	·86982	·95665	$\bar{2}$·01620	·04571	43
39	·65128	·77597	·88705	·97405	·03383	·06371	44
40	·67302	·79518	·90580	·99255	·05154	·08314	45
41	·69373	·81558	·92634	$\bar{2}$·01115	·07151	·10209	46
42	·71349	·83759	·94596	·03181	·09096	·12189	47
43	·73560	·85914	·96755	·05269	·11160	·14364	48
44	·76042	·88196	·98945	·07482	·13226	·16584	49
45	·78390	·90472	$\bar{2}$·01326	·09656	·15503	·18865	50
46	·80821	·92993	·03663	·11992	·17840	·21245	51
47	·83506	·95472	·06032	·14457	·20194	·23629	52
48	·85914	·98137	·08636	·16850	·22660	·26174	53
49	·88705	$\bar{2}$·00732	·11227	·19451	·25212	·28735	54
50	·91434	·03463	·13893	·22011	·27830	·31387	55
51	·94250	·06221	·16643	·24699	·30471	·34104	56
52	·97174	·09026	·19396	·27508	·33203	·36866	57
53	$\bar{2}$·00043	·11992	·22246	·30276	·36021	·39690	58
54	·03019	·14953	·25164	·33163	·38863	·42602	59
55	·06145	·17984	·28081	·36059	·41797	·45530	60
56	·09096	·21059	·31154	·39023	·44731	·48544	61
57	·12287	·24155	·34183	·42095	·47756	·51574	62
58	·15503	·27300	·37328	·45148	·50799	·54679	63
59	·18696	·30471	·40466	·48259	·53933	·57784	64

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log q_{[x]}$	$\log q_{[x]+1}$	$\log q_{[x]+2}$	$\log q_{[x]+3}$	$\log q_{[x]+4}$	$\log q_{x+5}$	$x+5$
60	$\bar{2}$·21958	$\bar{2}$·33706	$\bar{2}$·43648	$\bar{2}$·51428	$\bar{2}$·57066	$\bar{2}$·60970	65
61	·25212	·37033	·46864	·54617	·60260	·64167	66
62	·28533	·40312	·50133	·57864	·63458	·67422	67
63	·31911	·43648	·53453	·61109	·66727	·70655	68
64	·35334	·46997	·56761	·64404	·70001	·73957	69
65	·38703	·50406	·60108	·67715	·73296	·77276	70
66	·42160	·53820	·63488	·71063	·76619	·80598	71
67	·45591	·57252	·66867	·74429	·79962	·83967	72
68	·49052	·60681	·70303	·77793	·83340	·87309	73
69	·52569	·64147	·73711	·81204	·86700	·90709	74
70	·56074	·67624	·77166	·84609	·90097	·94087	75
71	·59561	·71122	·80611	·88024	·93500	·97474	76
72	·63104	·74617	·84061	·91450	·96895	$\bar{1}$·00881	77
73	·66642	·78125	·87535	·94885	$\bar{1}$·00299	·04277	78
74	·70191	·81624	·91004	·98318	·03707	·07671	79
75	·73727	·85144	·94473	$\bar{1}$·01753	·07103	·11072	80
76	·77276	·88660	·97950	·05177	·10514	·14451	81
77	·80848	·92174	$\bar{1}$·01414	·08604	·13906	·17834	82
78	·84392	·95689	·04875	·12024	·17289	·21189	83
79	·87938	·99193	·08336	·15433	·20658	·24541	84
80	·91487	$\bar{1}$·02698	·11780	·18823	·24017	·27864	85
81	·95032	·06187	·15210	·22204	·27349	·31173	86
82	·98574	·09670	·18625	·25566	·30662	·34449	87
83	$\bar{1}$·02102	·13133	·22024	·28903	·33949	·37701	88
84	·05614	·16587	·25402	·32218	·37205	·40917	89
85	·09117	·20017	·28762	·35499	·40430	·44096	90
86	·12607	·23426	·32089	·38751	·43618	·47236	91
87	·16083	·26813	·35390	·41967	·46767	·50327	92
88	·19529	·30175	·38655	·45143	·49868	·53371	93
89	·22955	·33510	·41880	·48277	·52921	·56360	94
90	·26366	·36803	·45071	·51360	·55920	·59290	95
91	·29741	·40066	·48214	·54394	·58861	·62154	96
92	·33086	·43289	·51307	·57372	·61737	·64951	97
93	·36401	·46467	·54350	·60285	·64544	·67671	98
94	·39674	·49600	·57334	·63132	·67278	·70310	99
95	·42909	·52679	·60254	·65907	·69930	·72865	100
96	·46099	·55701	·63108	·68605	·72497	·75325	101
97	·49245	·58663	·65888	·71219	·74973	·77688	102
98	·52336	·61560	·68589	·73743	·77352	·79947	103
99	·55369	·64387	·71207	·76174	·79626	...	104

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$e_{[x]}$	$e_{[x]+1}$	$e_{[x]+2}$	$e_{[x]+3}$	$e_{[x]+4}$	e_{x+5}	$x+5$
20	42·472	41·583	40·730	39·921	39·154	38·418	25
21	41·746	40·859	40·006	39·196	38·428	37·690	26
22	41·021	40·133	39·279	38·468	37·701	36·961	27
23	40·295	39·405	38·551	37·740	36·971	36·230	28
24	39·565	38·676	37·821	37·010	36·239	35·499	29
25	38·833	37·945	37·090	36·279	35·508	34·766	30
26	38·100	37·213	36·359	35·548	34·775	34·034	31
27	37·366	36·479	35·625	34·814	34·043	33·300	32
28	36·631	35·744	34·891	34·080	33·310	32·566	33
29	35·896	35·009	34·157	33·346	32·575	31·833	34
30	35·159	34·273	33·422	32·612	31·842	31·100	35
31	34·422	33·537	32·687	31·879	31·109	30·367	36
32	33·684	32·800	31·952	31·144	30·376	29·635	37
33	32·947	32·065	31·217	30·411	29·644	28·905	38
34	32·210	31·329	30·483	29·678	28·913	28·177	39
35	31·474	30·594	29·750	28·948	28·185	27·450	40
36	30·738	29·861	29·018	28·219	27·458	26·725	41
37	30·004	29·128	28·289	27·491	26·733	26·002	42
38	29·271	28·397	27·560	26·766	26·011	25·284	43
39	28·540	27·669	26·835	26·043	25·291	24·567	44
40	27·811	26·943	26·112	25·324	24·575	23·855	45
41	27·084	26·219	25·392	24·608	23·863	23·148	46
42	26·362	25·498	24·675	23·895	23·155	22·444	47
43	25·641	24·782	23·962	23·187	22·451	21·746	48
44	24·925	24·069	23·254	22·483	21·754	21·052	49
45	24·213	23·361	22·550	21·785	21·060	20·366	50
46	23·504	22·657	21·851	21·092	20·373	19·685	51
47	22·802	21·958	21·158	20·404	19·692	19·011	52
48	22·104	21·265	20·471	19·723	19·019	18·345	53
49	21·412	20·578	19·790	19·049	18·352	17·686	54
50	20·727	19·898	19·117	18·383	17·693	17·036	55
51	20·048	19·225	18·450	17·724	17·043	16·394	56
52	19·377	18·560	17·791	17·074	16·402	15·762	57
53	18·713	17·902	17·141	16·432	15·769	15·139	58
54	18·057	17·253	16·500	15·800	15·146	14·526	59
55	17·410	16·613	15·868	15·177	14·533	13·924	60
56	16·773	15·982	15·246	14·565	13·931	13·333	61
57	16·144	15·361	14·634	13·963	13·341	12·754	62
58	15·526	14·751	14·033	13·372	12·761	12·186	63
59	14·918	14·151	13·443	12·793	12·194	11·631	64

MALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase: 0	1	2	3	4	5 or more	Age Attained
$[x]$	$e_{[x]}$	$e_{[x]+1}$	$e_{[x]+2}$	$e_{[x]+3}$	$e_{[x]+4}$	e_{x+5}	$x+5$
60	14·321	13·563	12·864	12·225	11·638	11·088	65
61	13·736	12·986	12·298	11·671	11·096	10·559	66
62	13·162	12·421	11·743	11·128	10·566	10·043	67
63	12·601	11·869	11·202	10·599	10·051	9·541	68
64	12·051	11·329	10·674	10·083	9·548	9·052	69
65	11·515	10·803	10·159	9·581	9·060	8·578	70
66	10·992	10·290	9·658	9·094	8·586	8·118	71
67	10·483	9·791	9·171	8·620	8·126	7·673	72
68	9·987	9·306	8·698	8·160	7·681	7·243	73
69	9·505	8·835	8·240	7·715	7·251	6·827	74
70	9·037	8·378	7·796	7·286	6·835	6·426	75
71	8·584	7·937	7·367	6·870	6·435	6·041	76
72	8·146	7·510	6·953	6·470	6·049	5·670	77
73	7·722	7·097	6·554	6·085	5·679	5·315	78
74	7·312	6·700	6·169	5·715	5·323	4·974	79
75	6·917	6·317	5·800	5·360	4·983	4·648	80
76	6·537	5·949	5·445	5·019	4·657	4·336	81
77	6·171	5·596	5·105	4·694	4·345	4·039	82
78	5·820	5·257	4·780	4·383	4·048	3·757	83
79	5·483	4·932	4·469	4·086	3·765	3·488	84
80	5·160	4·623	4·173	3·803	3·497	3·232	85
81	4·851	4·326	3·890	3·534	3·241	2·990	86
82	4·556	4·044	3·622	3·279	2·999	2·761	87
83	4·274	3·776	3·366	3·037	2·770	2·545	88
84	4·006	3·520	3·124	2·808	2·554	2·341	89
85	3·750	3·277	2·895	2·591	2·350	2·149	90
86	3·506	3·047	2·678	2·387	2·158	1·968	91
87	3·275	2·829	2·473	2·195	1·977	1·799	92
88	3·055	2·623	2·280	2·014	1·807	1·640	93
89	2·846	2·428	2·098	1·843	1·648	1·491	94
90	2·648	2·243	1·926	1·684	1·499	1·352	95
91	2·461	2·070	1·765	1·534	1·360	1·222	96
92	2·283	1·906	1·614	1·394	1·230	1·100	97
93	2·116	1·752	1·472	1·264	1·109	·987	98
94	1·957	1·607	1·340	1·141	·995	·880	99
95	1·807	1·470	1·215	1·027	·888	·777	100
96	1·665	1·342	1·098	·918	·784	·672	101
97	1·530	1·220	·987	·814	·679	·550	102
98	1·401	1·103	·878	·706	·557	·370	103
99	1·277	·988	·766	·580	·374	...	104

MALES.

$2\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $2\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
20	61027·	59383·	57730·	56060·	54375·	52694·	25
21	59140·	57543·	55940·	54316·	52679·	51047·	26
22	57305·	55756·	54200·	52624·	51033·	49447·	27
23	55524·	54022·	52509·	50979·	49433·	47891·	28
24	53795·	52335·	50867·	49380·	47878·	46380·	29
25	52113·	50697·	49272·	47826·	46367·	44910·	30
26	50481·	49105·	47720·	46316·	44897·	43480·	31
27	48895·	47558·	46213·	44848·	43468·	42090·	32
28	47351·	46054·	44747·	43420·	42078·	40737·	33
29	45851·	44591·	43321·	42032·	40726·	39421·	34
30	44392·	43170·	41935·	40680·	39410·	38140·	35
31	42973·	41786·	40585·	39365·	38129·	36893·	36
32	41594·	40440·	39273·	38085·	36882·	35678·	37
33	40250·	39130·	37994·	36839·	35667·	34494·	38
34	38944·	37854·	36750·	35625·	34483·	33340·	39
35	37670·	36612·	35538·	34442·	33330·	32214·	40
36	36431·	35402·	34357·	33289·	32205·	31116·	41
37	35223·	34222·	33205·	32165·	31107·	30046·	42
38	34046·	33073·	32083·	31068·	30036·	28999·	43
39	32898·	31952·	30986·	29998·	28990·	27978·	44
40	31779·	30857·	29917·	28952·	27969·	26979·	45
41	30686·	29790·	28873·	27931·	26971·	26002·	46
42	29619·	28747·	27853·	26934·	25994·	25047·	47
43	28577·	27728·	26857·	25958·	25039·	24112·	48
44	27559·	26732·	25881·	25003·	24103·	23197·	49
45	26563·	25757·	24928·	24069·	23188·	22300·	50
46	25589·	24804·	23993·	23154·	22292·	21420·	51
47	24636·	23870·	23079·	22257·	21411·	20557·	52
48	23702·	22957·	22182·	21377·	20548·	19710·	53
49	22788·	22061·	21303·	20515·	19702·	18877·	54
50	21891·	21181·	20441·	19668·	18869·	18060·	55
51	21011·	20319·	19595·	18836·	18052·	17256·	56
52	20147·	19472·	18763·	18019·	17248·	16466·	57
53	19300·	18640·	17946·	17216·	16459·	15690·	58
54	18466·	17823·	17143·	16426·	15682·	14925·	59
55	17648·	17019·	16353·	15649·	14917·	14173·	60
56	16842·	16229·	15576·	14885·	14165·	13432·	61
57	16051·	15451·	14812·	14133·	13425·	12704·	62
58	15272·	14686·	14060·	13392·	12696·	11988·	63
59	14505·	13933·	13319·	12665·	11980·	11283·	64

MALES.

$2\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $2\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
60	13751·	13193·	12591·	11949·	11276·	10592·	65
61	13008·	12464·	11875·	11245·	10584·	9912·7	66
62	12278·	11748·	11171·	10553·	9905·4	9247·2	67
63	11561·	11044·	10480·	9874·2	9240·0	8595·7	68
64	10856·	10352·	9801·4	9209·2	8588·8	7959·2	69
65	10164·	9673·9	9136·7	8558·2	7952·3	7338·9	70
66	9485·1	9009·5	8486·3	7922·1	7332·0	6735·7	71
67	8820·8	8359·9	7851·1	7302·5	6729·0	6150·9	72
68	8171·7	7725·6	7232·4	6699·9	6144·4	5586·1	73
69	7538·6	7108·0	6631·0	6116·0	5579·8	5042·9	74
70	6923·1	6508·6	6048·5	5552·3	5036·7	4522·7	75
71	6326·0	5928·4	5486·4	5010·0	4516·9	4027·4	76
72	5749·1	5369·1	4946·1	4491·2	4021·8	3558·4	77
73	5194·0	4832·1	4429·5	3997·1	3553·0	3117·3	78
74	4662·0	4319·4	3938·0	3529·6	3112·3	2705·6	79
75	4155·1	3832·4	3473·3	3090·2	2700·9	2324·7	80
76	3674·9	3372·7	3037·0	2680·3	2320·3	1975·4	81
77	3222·8	2941·9	2630·5	2301·2	1971·4	1658·4	82
78	2800·5	2541·4	2254·9	1953·8	1654·7	1374·0	83
79	2409·1	2172·4	1911·3	1638·8	1370·7	1122·1	84
80	2050·0	1835·6	1600·3	1356·5	1119·3	902·11	85
81	1723·6	1531·6	1321·9	1106·6	899·62	712·94	86
82	1430·4	1260·5	1076·1	888·65	710·79	552·96	87
83	1170·3	1021·9	862·08	701·41	551·16	420·22	88
84	942·71	815·04	678·67	543·28	418·74	312·31	89
85	746·60	638·54	524·19	412·24	311·11	226·52	90
86	580·44	490·58	396·53	305·87	225·57	159·99	91
87	442·23	368·97	293·23	221·45	159·27	109·77	92
88	329·58	271·13	211·52	156·11	109·23	72·973	93
89	239·78	194·24	148·51	106·88	72·584	46·863	94
90	169·92	135·36	101·24	70·886	46·592	28·981	95
91	117·01	91·515	66·822	45·408	28·799	17·201	96
92	78·091	59·866	42·581	28·004	17·083	9·7609	97
93	50·367	37·778	26·112	16·571	9·6881	5·2739	98
94	31·297	22·921	15·355	9·3722	5·2312	2·7012	99
95	18·671	13·323	8·6262	5·0457	2·6774	1·3050	100
96	10·654	7·3899	4·6099	2·5742	1·2925	·5916	101
97	5·7923	3·8948	2·3329	1·2383	·5854	·2502	102
98	2·9866	1·9414	1·1124	·5587	·2473	·0981	103
99	1·4535	·9106	·4971	·2351	·0968	·0354	104

MALES.

$2\frac{1}{2}$ PER CENT. — COMMUTATION TABLE. — $2\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
20	1556878·	1495851·	1436468·	1378738·	1322678·	1268303·	25
21	1495227·	1436087·	1378544·	1322604·	1268288·	1215609·	26
22	1435480·	1378175·	1322419·	1268219·	1215595·	1164562·	27
23	1377582·	1322058·	1268036·	1215527·	1164548·	1115115·	28
24	1321479·	1267684·	1215349·	1164482·	1115102·	1067224·	29
25	1267119·	1215006·	1164309·	1115037·	1067211·	1020844·	30
26	1214453·	1163972·	1114867·	1067147·	1020831·	975934·	31
27	1163436·	1114541·	1066983·	1020770·	975922·	932454·	32
28	1114014·	1066663·	1020609·	975862·	932442·	890364·	33
29	1066148·	1020297·	975706·	932385·	890353·	849627·	34
30	1019793·	975401·	932231·	890296·	849616·	810206·	35
31	974904·	931931·	890145·	849560·	810195·	772066·	36
32	931447·	889853·	849413·	810140·	772055·	735173·	37
33	889375·	849125·	809995·	772001·	735162·	699495·	38
34	848657·	809713·	771859·	735109·	699484·	665001·	39
35	809253·	771583·	734971·	699433·	664991·	631661·	40
36	771131·	734700·	699298·	664941·	631652·	599447·	41
37	734253·	699030·	664808·	631603·	599438·	568331·	42
38	698591·	664545·	631472·	599389·	568321·	538285·	43
39	664110·	631212·	599260·	568274·	538276·	509286·	44
40	630782·	599003·	568146·	538229·	509277·	481308·	45
41	598580·	567894·	538104·	509231·	481300·	454329·	46
42	567474·	537855·	509108·	481255·	454321·	428327·	47
43	537439·	508862·	481134·	454277·	428319·	403280·	48
44	508446·	480887·	454155·	428274·	403271·	379168·	49
45	480476·	453913·	428156·	403228·	379159·	355971·	50
46	453503·	427914·	403110·	379117·	355963·	333671·	51
47	427504·	402868·	378998·	355919·	333662·	312251·	52
48	402460·	378758·	355801·	333619·	312242·	291694·	53
49	378353·	355565·	333504·	312201·	291686·	271984·	54
50	355157·	333266·	312085·	291644·	271976·	253107·	55
51	332860·	311849·	291530·	271935·	253099·	235047·	56
52	311440·	291293·	271821·	253058·	235039·	217791·	57
53	290886·	271586·	252946·	235000·	217784·	201325·	58
54	271175·	252709·	234886·	217743·	201317·	185635·	59
55	252296·	234648·	217629·	201276·	185627·	170710·	60
56	234234·	217392·	201163·	185587·	170702·	156537·	61
57	216977·	200926·	185475·	170663·	156530·	143105·	62
58	200507·	185235·	170549·	156489·	143097·	130401·	63
59	184815·	170310·	156377·	143058·	130393·	118413·	64

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \cdots$$

MALES.

$2\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $2\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
60	169890·	156139·	142946·	130355·	118406·	107130·	65
61	155714·	142706·	130242·	118367·	107122·	96538·	66
62	142280·9	130002·9	118254·9	107083·9	96530·9	86625·5	67
63	129577·5	118016·5	106972·5	96492·5	86618·3	77378·3	68
64	117590·0	106734·0	96382·0	86580·6	77371·4	68782·6	69
65	106308·5	96144·5	86470·6	77333·9	68775·7	60823·4	70
66	95719·5	86234·4	77224·9	68738·6	60816·5	53484·5	71
67	85812·1	76991·3	68631·4	60780·3	53477·8	46748·8	72
68	76571·9	68400·2	60674·6	53442·2	46742·3	40597·9	73
69	67985·2	60446·6	53338·6	46707·6	40591·6	35011·8	74
70	60038·1	53115·0	46606·4	40557·9	35005·6	29968·9	75
71	52713·9	46387·9	40459·5	34973·1	29963·1	25446·2	76
72	45996·1	40247·0	34877·9	29931·8	25440·6	21418·8	77
73	39866·1	34672·1	29840·0	25410·5	21413·4	17860·4	78
74	34304·4	29642·4	25323·0	21385·0	17855·4	14743·1	79
75	29289·4	25134·3	21301·9	17828·6	14738·4	12037·5	80
76	24798·0	21123·1	17750·4	14713·4	12033·1	9712·8	81
77	20805·2	17582·4	14640·5	12010·0	9708·8	7737·4	82
78	17284·3	14483·8	11942·4	9687·5	7733·7	6079·0	83
79	14207·3	11798·2	9625·8	7714·5	6075·7	4705·0	84
80	11544·6	9494·6	7659·0	6058·7	4702·2	3582·9	85
81	9264·06	7540·46	6008·86	4686·96	3580·36	2680·74	86
82	7334·24	5903·84	4643·34	3567·24	2678·59	1967·80	87
83	5721·69	4551·39	3529·49	2667·41	1966·00	1414·84	88
84	4393·06	3450·35	2635·31	1956·64	1413·36	994·62	89
85	3314·99	2568·39	1929·85	1405·66	993·42	682·31	90
86	2454·78	1874·34	1383·76	987·23	681·36	455·79	91
87	1780·95	1338·72	969·75	676·52	455·07	295·80	92
88	1263·60	934·02	662·89	451·37	295·26	186·03	93
89	875·055	635·275	441·035	292·525	185·645	113·061	94
90	590·196	420·276	284·916	183·676	112·790	66·198	95
91	386·771	269·761	178·246	111·424	66·016	37·217	96
92	245·641	167·550	107·684	65·103	37·099	20·016	97
93	150·7714	100·4044	62·6264	36·5144	19·9434	10·2553	98
94	89·1578	57·8608	34·9398	19·5848	10·2126	4·9814	99
95	50·6235	31·9525	18·6295	10·0033	4·9576	2·2802	100
96	27·4957	16·8417	9·4518	4·8419	2·2677	·9752	101
97	14·2273	8·4350	4·5402	2·2073	·9690	·3836	102
98	6·9799	3·9933	2·0519	·9395	·3808	·1334	103
99	3·2285	1·7750	·8644	·3673	·1322	·0354	104

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

MALES.

$2\frac{1}{2}$ PER CENT. VALUE OF AN ANNUITY OF 1. $2\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
20	24·512	24·191	23·882	23·594	23·325	23·069	25
21	24·283	23·956	23·643	23·350	23·075	22·814	26
22	24·050	23·718	23·399	23·100	22·821	22·551	27
23	23·811	23·472	23·149	22·843	22·557	22·284	28
24	23·566	23·221	22·893	22·582	22·290	22·009	29
25	23·315	22·966	22·629	22·315	22·016	21·731	30
26	23·058	22·704	22·362	22·040	21·737	21·446	31
27	22·794	22·436	22·089	21·761	21·452	21·154	32
28	22·527	22·161	21·809	21·475	21·160	20·856	33
29	22·253	21·881	21·523	21·183	20·862	20·553	34
30	21·973	21·594	21·230	20·885	20·558	20·243	35
31	21·686	21·302	20·932	20·582	20·249	19·927	36
32	21·394	21·004	20·629	20·272	19·933	19·606	37
33	21·096	20·700	20·319	19·956	19·612	19·279	38
34	20·792	20·391	20·003	19·635	19·285	18·946	39
35	20·482	20·075	19·681	19·308	18·952	18·608	40
36	20·167	19·753	19·354	18·975	18·614	18·265	41
37	19·846	19·426	19·021	18·636	18·270	17·916	42
38	19·520	19·093	18·683	18·293	17·922	17·563	43
39	19·187	18·755	18·339	17·944	17·568	17·203	44
40	18·849	18·412	17·991	17·591	17·209	16·840	45
41	18·506	18·063	17·637	17·232	16·845	16·473	46
42	18·159	17·710	17·279	16·868	16·478	16·101	47
43	17·807	17·352	16·915	16·501	16·106	15·725	48
44	17·450	16·989	16·548	16·129	15·731	15·345	49
45	17·088	16·623	16·176	15·753	15·351	14·963	50
46	16·722	16·251	15·801	15·374	14·969	14·578	51
47	16·353	15·877	15·422	14·991	14·583	14·190	52
48	15·980	15·499	15·040	14·606	14·195	13·799	53
49	15·604	15·118	14·655	14·218	13·805	13·408	54
50	15·224	14·734	14·268	13·829	13·414	13·015	55
51	14·843	14·348	13·878	13·437	13·021	12·621	56
52	14·458	13·960	13·487	13·044	12·627	12·227	57
53	14·072	13·570	13·095	12·650	12·232	11·832	58
54	13·685	13·179	12·702	12·256	11·838	11·438	59
55	13·296	12·788	12·309	11·862	11·444	11·045	60
56	12·907	12·395	11·915	11·468	11·051	10·654	61
57	12·518	12·004	11·522	11·076	10·660	10·265	62
58	12·129	11·613	11·131	10·685	10·271	9·878	63
59	11·742	11·223	10·741	10·296	9·884	9·495	64

MALES.

$2\frac{1}{2}$ PER CENT. VALUE OF AN ANNUITY OF 1. $2\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
60	11·355	10·836	10·353	9·910	9·501	9·114	65
61	10·971	10·449	9·968	9·526	9·121	8·739	66
62	10·588	10·066	9·585	9·147	8·745	8·368	67
63	10·209	9·686	9·208	8·772	8·374	8·002	68
64	9·832	9·310	8·833	8·402	8·009	7·642	69
65	9·460	8·939	8·464	8·036	7·649	7·288	70
66	9·092	8·572	8·100	7·677	7·295	6·941	71
67	8·728	8·210	7·742	7·323	6·947	6·600	72
68	8·371	7·854	7·389	6·977	6·607	6·268	73
69	8·018	7·504	7·044	6·637	6·275	5·943	74
70	7·672	7·161	6·706	6·305	5·950	5·626	75
71	7·333	6·825	6·374	5·981	5·634	5·318	76
72	7·001	6·496	6·052	5·665	5·326	5·019	77
73	6·675	6·175	5·737	5·357	5·027	4·729	78
74	6·358	5·863	5·430	5·059	4·737	4·449	79
75	6·049	5·558	5·133	4·769	4·457	4·178	80
76	5·748	5·263	4·845	4·489	4·186	3·917	81
77	5·456	4·977	4·566	4·219	3·925	3·666	82
78	5·172	4·699	4·296	3·958	3·674	3·424	83
79	4·897	4·431	4·036	3·708	3·433	3·193	84
80	4·632	4·172	3·786	3·467	3·201	2·972	85
81	4·375	3·923	3·546	3·235	2·980	2·760	86
82	4·127	3·684	3·315	3·014	2·769	2·559	87
83	3·889	3·454	3·094	2·803	2·567	2·367	88
84	3·660	3·233	2·883	2·602	2·375	2·185	89
85	3·440	3·022	2·682	2·410	2·193	2·012	90
86	3·229	2·821	2·490	2·228	2·021	1·849	91
87	3·027	2·628	2·307	2·055	1·857	1·695	92
88	2·834	2·445	2·134	1·891	1·703	1·549	93
89	2·650	2·271	1·970	1·737	1·558	1·413	94
90	2·473	2·105	1·814	1·591	1·421	1·284	95
91	2·305	1·948	1·667	1·454	1·292	1·164	96
92	2·146	1·799	1·529	1·325	1·172	1·051	97
93	1·993	1·658	1·398	1·204	1·059	·945	98
94	1·849	1·524	1·275	1·090	·952	·844	99
95	1·711	1·398	1·160	·983	·852	·747	100
96	1·581	1·279	1·050	·881	·754	·648	101
97	1·456	1·166	·946	·782	·655	·533	102
98	1·337	1·057	·845	·681	·540	·361	103
99	1·221	·949	·739	·562	·365	...	104

MALES.

3 PER CENT. COMMUTATION TABLE. 3 PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
20	55368·	53614·	51869·	50123·	48382·	46658·	25
21	53395·	51701·	50016·	48329·	46646·	44980·	26
22	51487·	49852·	48226·	46596·	44968·	43358·	27
23	49644·	48067·	46494·	44920·	43346·	41791·	28
24	47865·	46340·	44822·	43299·	41780·	40275·	29
25	46145·	44671·	43205·	41734·	40264·	38810·	30
26	44482·	43059·	41642·	40220·	38799·	37392·	31
27	42874·	41500·	40130·	38756·	37382·	36021·	32
28	41320·	39993·	38669·	37340·	36011·	34694·	33
29	39816·	38535·	37255·	35971·	34684·	33410·	34
30	38362·	37125·	35888·	34645·	33400·	32168·	35
31	36956·	35760·	34564·	33362·	32158·	30964·	36
32	35596·	34441·	33284·	32121·	30955·	29799·	37
33	34279·	33163·	32045·	30919·	29790·	28671·	38
34	33005·	31926·	30845·	29755·	28662·	27577·	39
35	31772·	30728·	29682·	28628·	27568·	26516·	40
36	30577·	29569·	28557·	27535·	26508·	25488·	41
37	29419·	28445·	27465·	26476·	25481·	24492·	42
38	28298·	27356·	26408·	25448·	24484·	23524·	43
39	27211·	26300·	25382·	24453·	23517·	22585·	44
40	26158·	25276·	24387·	23486·	22578·	21673·	45
41	25136·	24283·	23422·	22548·	21666·	20787·	46
42	24144·	23320·	22484·	21637·	20781·	19926·	47
43	23181·	22384·	21574·	20752·	19920·	19090·	48
44	22247·	21474·	20690·	19892·	19083·	18276·	49
45	21339·	20592·	19831·	19055·	18269·	17484·	50
46	20457·	19733·	18995·	18242·	17477·	16712·	51
47	19599·	18898·	18183·	17450·	16706·	15961·	52
48	18765·	18087·	17392·	16679·	15954·	15229·	53
49	17954·	17296·	16621·	15928·	15223·	14515·	54
50	17163·	16526·	15871·	15197·	14509·	13819·	55
51	16393·	15776·	15140·	14483·	13813·	13140·	56
52	15643·	15045·	14427·	13788·	13134·	12478·	57
53	14912·	14333·	13732·	13110·	12472·	11831·	58
54	14199·	13638·	13054·	12447·	11826·	11200·	59
55	13504·	12960·	12392·	11801·	11194·	10584·	60
56	12825·	12298·	11746·	11170·	10578·	9982·5	61
57	12163·	11652·	11115·	10554·	9976·8	9395·3	62
58	11516·	11021·	10500·	9952·9	9389·7	8822·5	63
59	10885·	10405·	9898·5	9366·1	8817·0	8264·0	64

MALES.

3 PER CENT. COMMUTATION TABLE. **3 PER CENT.**

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
60	10269·	9804·4	9311·9	8793·7	8258·7	7719·7	65
61	9667·4	9218·1	8739·6	8235·5	7714·4	7189·7	66
62	9080·5	8645·9	8181·8	7691·5	7184·4	6674·5	67
63	8508·2	8088·4	7638·2	7161·8	6669·3	6174·0	68
64	7950·8	7545·0	7109·0	6647·1	6169·1	5689·2	69
65	7407·6	7016·5	6594·8	6147·1	5684·2	5220·2	70
66	6879·6	6502·9	6095·5	5662·7	5215·3	4767·9	71
67	6366·8	6004·7	5611·9	5194·3	4763·2	4332·9	72
68	5869·5	5522·2	5144·5	4742·6	4328·3	3915·9	73
69	5388·5	5056·0	4693·9	4308·3	3911·5	3518·0	74
70	4924·5	4607·2	4260·8	3892·2	3513·7	3139·8	75
71	4478·0	4176·2	3846·0	3495·1	3135·7	2782·3	76
72	4049·9	3763·7	3450·5	3117·9	2778·4	2446·4	77
73	3641·0	3371·0	3075·0	2761·4	2442·6	2132·8	78
74	3252·3	2998·6	2720·6	2426·6	2129·3	1842·1	79
75	2884·6	2647·6	2387·9	2114·2	1838·9	1575·1	80
76	2538·8	2318·7	2077·8	1824·9	1572·1	1331·9	81
77	2215·6	2012·8	1790·9	1559·1	1329·2	1112·7	82
78	1916·0	1730·3	1527·8	1317·3	1110·3	917·42	83
79	1640·3	1471·8	1288·7	1099·6	915·25	745·61	84
80	1388·9	1237·6	1073·7	905·73	743·70	596·53	85
81	1162·1	1027·7	882·67	735·33	594·88	469·14	86
82	959·78	841·65	715·04	587·62	467·72	362·10	87
83	781·43	679·03	570·06	461·55	360·93	273·84	88
84	626·40	538·95	446·59	355·76	272·87	202·53	89
85	493·70	420·18	343·27	268·64	201·75	146·18	90
86	381·95	321·26	258·40	198·36	145·58	102·75	91
87	289·59	240·44	190·16	142·92	102·28	70·157	92
88	214·77	175·83	136·51	100·26	69·814	46·411	93
89	155·50	125·35	95·376	68·311	46·164	29·660	94
90	109·66	86·928	64·702	45·084	29·488	18·254	95
91	75·147	58·488	42·499	28·739	18·139	10·781	96
92	49·909	38·075	26·950	17·638	10·708	6·0882	97
93	32·034	23·910	16·446	10·386	6·0428	3·2736	98
94	19·808	14·436	9·6245	5·8457	3·2471	1·6685	99
95	11·760	8·3506	5·3805	3·1319	1·6538	·8022	100
96	6·6781	4·6094	2·8614	1·5900	·7945	·3619	101
97	3·6129	2·4175	1·4410	·7612	·3581	·1523	102
98	1·8538	1·1992	·6838	·3418	·1506	·0594	103
99	·8978	·5597	·3041	·1431	·0587	·0213	104

MALES.

3 PER CENT. COMMUTATION TABLE. **3 PER CENT.**

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
20	1293267·	1237899·	1184285·	1132416·	1082293·	1033911·	25
21	1237340·	1183945·	1132244·	1082228·	1033899·	987253·	26
22	1183402·	1131915·	1082063·	1033837·	987241·	942273·	27
23	1131386·	1081742·	1033675·	987181·	942261·	898915·	28
24	1081230·	1033365·	987025·	942203·	898904·	857124·	29
25	1032868·	986723·	942052·	898847·	857113·	816849·	30
26	986241·	941759·	898700·	857058·	816838·	778039·	31
27	941289·	898415·	856915·	816785·	778029·	740647·	32
28	897959·	856639·	816646·	777977·	740637·	704626·	33
29	856193·	816377·	777842·	740587·	704616·	669932·	34
30	815942·	777580·	740455·	704567·	669922·	636522·	35
31	777154·	740198·	704438·	669874·	636512·	604354·	36
32	739787·	704191·	669750·	636466·	604345·	573390·	37
33	703787·	669508·	636345·	604300·	573381·	543591·	38
34	669113·	636108·	604182·	573337·	543582·	514920·	39
35	635721·	603949·	573221·	543539·	514911·	487343·	40
36	603573·	572996·	543427·	514870·	487335·	460827·	41
37	572625·	543206·	514761·	487296·	460820·	435339·	42
38	542841·	514543·	487187·	460779·	435331·	410847·	43
39	514186·	486975·	460675·	435293·	410840·	387323·	44
40	486623·	460465·	435189·	410802·	387316·	364738·	45
41	460120·	434984·	410701·	387279·	364731·	343065·	46
42	434644·	410500·	387180·	364696·	343059·	322278·	47
43	410163·	386982·	364598·	343024·	322272·	302352·	48
44	386648·	364401·	342927·	322237·	302345·	283262·	49
45	364072·	342733·	322141·	302310·	283255·	264986·	50
46	342406·	321949·	302216·	283221·	264979·	247502·	51
47	321626·	302027·	283129·	264946·	247496·	230790·	52
48	301706·	282941·	264854·	247462·	230783·	214829·	53
49	282622·	264668·	247372·	230751·	214823·	199600·	54
50	264351·	247188·	230662·	214791·	199594·	185085·	55
51	246871·	230478·	214702·	199562·	185079·	171266·	56
52	230163·	214520·	199475·	185048·	171260·	158126·	57
53	214207·	199295·	184962·	171230·	158120·	145648·	58
54	198981·	184782·	171144·	158090·	145643·	133817·	59
55	184468·	170964·	158004·	145612·	133811·	122617·	60
56	170650·	157825·	145527·	133781·	122611·	112033·	61
57	157511·5	145348·5	133696·5	122581·5	112027·5	102050·7	62
58	145035·0	133519·0	122498·0	111998·0	102045·1	92655·4	63
59	133204·5	122319·5	111914·5	102016·0	92649·9	83832·9	64

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

MALES.

3 PER CENT. COMMUTATION TABLE. **3 PER CENT.**

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
60	122006·6	111737·6	101933·2	92621·3	83827·6	75568·9	65
61	111424·2	101756·8	92538·7	83799·1	75563·6	67849·2	66
62	101443·6	92363·1	83717·2	75535·4	67843·9	60659·5	67
63	92050·9	83542·7	75454·3	67816·1	60654·3	53985·0	68
64	83232·0	75281·2	67736·2	60627·2	53980·1	47811·0	69
65	74972·0	67564·4	60547·9	53953·1	47806·0	42121·8	70
66	67257·6	60378·0	53875·1	47779·6	42116·9	36901·6	71
67	60074·6	53707·8	47703·1	42091·2	36896·9	32133·7	72
68	53407·9	47538·4	42016·2	36871·7	32129·1	27800·8	73
69	47243·1	41854·6	36798·6	32104·7	27796·4	23884·9	74
70	41565·3	36640·8	32033·6	27772·8	23880·6	20366·9	75
71	36358·1	31880·1	27703·9	23857·9	20362·8	17227·1	76
72	31605·2	27555·3	23791·6	20341·1	17223·2	14444·8	77
73	27289·4	23648·4	20277·4	17202·4	14441·0	11998·4	78
74	23393·0	20140·7	17142·1	14421·5	11994·9	9865·6	79
75	19896·7	17012·1	14364·5	11976·6	9862·4	8023·5	80
76	16780·7	14241·9	11923·2	9845·4	8020·5	6448·4	81
77	14024·1	11808·5	9795·7	8004·8	6445·7	5116·5	82
78	11605·5	9689·5	7959·2	6431·4	5114·1	4003·8	83
79	9502·02	7861·72	6389·92	5101·22	4001·62	3086·37	84
80	7690·39	6301·49	5063·89	3990·19	3084·46	2340·76	85
81	6146·91	4984·81	3957·11	3074·44	2339·11	1744·23	86
82	4846·90	3887·12	3045·47	2330·43	1742·81	1275·09	87
83	3765·99	2984·56	2305·53	1735·47	1273·92	912·99	88
84	2879·72	2253·32	1714·37	1267·78	912·02	639·15	89
85	2164·16	1670·46	1250·28	907·01	638·37	436·62	90
86	1595·99	1214·04	892·78	634·38	436·02	290·44	91
87	1153·08	863·49	623·05	432·89	289·97	187·69	92
88	814·717	599·947	424·117	287·607	187·347	117·533	93
89	561·823	406·323	280·973	185·597	117·286	71·122	94
90	377·324	267·664	180·736	116·034	70·950	41·462	95
91	246·220	171·073	112·585	70·086	41·347	23·208	96
92	155·707	105·798	67·723	40·773	23·135	12·427	97
93	95·1580	63·1240	39·2140	22·7680	12·3820	6·3392	98
94	56·0269	36·2189	21·7829	12·1584	6·3127	3·0656	99
95	31·6739	19·9139	11·5633	6·1828	3·0509	1·3971	100
96	17·1283	10·4502	5·8408	2·9794	1·3894	·5949	101
97	8·8237	5·2108	2·7933	1·3523	·5911	·2330	102
98	4·3099	2·4561	1·2569	·5731	·2313	·0807	103
99	1·9847	1·0869	·5272	·2231	·0800	·0213	104

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

MALES.

3 PER CENT. VALUE OF AN ANNUITY OF 1. 3 PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
20	22·358	22·089	21·832	21·593	21·370	21·159	25
21	22·173	21·899	21·637	21·393	21·165	20·949	26
22	21·984	21·707	21·437	21·187	20·955	20·732	27
23	21·789	21·505	21·232	20·976	20·738	20·510	28
24	21·590	21·300	21·021	20·760	20·515	20·282	29
25	21·383	21·088	20·805	20·538	20·287	20·047	30
26	21·172	20·871	20·582	20·310	20·053	19·808	31
27	20·955	20·649	20·354	20·075	19·813	19·562	32
28	20·732	20·420	20·119	19·835	19·567	19·310	33
29	20·504	20·186	19·879	19·589	19·315	19·052	34
30	20·270	19·945	19·632	19·337	19·057	18·788	35
31	20·029	19·699	19·380	19·079	18·793	18·518	36
32	19·783	19·446	19·123	18·815	18·523	18·242	37
33	19·531	19·189	18·858	18·544	18·247	17·960	38
34	19·273	18·924	18·588	18·268	17·965	17·672	39
35	19·009	18·654	18·312	17·986	17·677	17·379	40
36	18·740	18·379	18·030	17·699	17·384	17·080	41
37	18·465	18·096	17·743	17·405	17·085	16·775	42
38	18·183	17·809	17·449	17·106	16·780	16·465	43
39	17·896	17·516	17·150	16·801	16·470	16·150	44
40	17·604	17·218	16·845	16·491	16·155	15·829	45
41	17·305	16·913	16·535	16·176	15·834	15·504	46
42	17·002	16·603	16·220	15·856	15·509	15·173	47
43	16·694	16·289	15·899	15·530	15·178	14·839	48
44	16·380	15·969	15·574	15·200	14·844	14·499	49
45	16·061	15·644	15·244	14·866	14·505	14·156	50
46	15·738	15·315	14·910	14·526	14·162	13·810	51
47	15·410	14·982	14·571	14·183	13·815	13·460	52
48	15·078	14·643	14·229	13·837	13·465	13·107	53
49	14·742	14·302	13·883	13·487	13·112	12·751	54
50	14·403	13·957	13·534	13·134	12·757	12·394	55
51	14·060	13·609	13·181	12·779	12·399	12·034	56
52	13·714	13·259	12·827	12·421	12·039	11·673	57
53	13·365	12·905	12·470	12·061	11·678	11·311	58
54	13·014	12·549	12·110	11·700	11·316	10·948	59
55	12·660	12·192	11·751	11·339	10·954	10·585	60
56	12·306	11·834	11·390	10·977	10·590	10·223	61
57	11·951	11·475	11·028	10·615	10·229	9·862	62
58	11·594	11·115	10·667	10·253	9·868	9·502	63
59	11·238	10·755	10·307	9·892	9·508	9·144	64

MALES.

3 PER CENT. VALUE OF AN ANNUITY OF 1. 3 PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
60	10·882	10·396	9·947	9·533	9·150	8·789	65
61	10·526	10·039	9·589	9·175	8·795	8·437	66
62	10·172	9·683	9·232	8·821	8·443	8·088	67
63	9·819	9·329	8·879	8·469	8·095	7·744	68
64	9·469	8·978	8·528	8·121	7·750	7·404	69
65	9·121	8·629	8·181	7·777	7·410	7·069	70
66	8·777	8·285	7·839	7·438	7·076	6·740	71
67	8·436	7·944	7·500	7·103	6·746	6·416	72
68	8·099	7·609	7·167	6·775	6·423	6·100	73
69	7·768	7·278	6·840	6·452	6·107	5·789	74
70	7·441	6·953	6·518	6·136	5·796	5·487	75
71	7·119	6·634	6·203	5·826	5·494	5·192	76
72	6·804	6·321	5·895	5·524	5·199	4·904	77
73	6·495	6·015	5·594	5·230	4·912	4·626	78
74	6·193	5·717	5·301	4·943	4·633	4·356	79
75	5·898	5·426	5·016	4·665	4·363	4·094	80
76	5·610	5·142	4·738	4·395	4·102	3·842	81
77	5·330	4·867	4·470	4·134	3·849	3·598	82
78	5·057	4·600	4·210	3·882	3·606	3·364	83
79	4·793	4·341	3·958	3·639	3·372	3·139	84
80	4·537	4·092	3·716	3·406	3·148	2·924	85
81	4·289	3·851	3·483	3·181	2·932	2·718	86
82	4·050	3·619	3·259	2·966	2·726	2·521	87
83	3·819	3·395	3·044	2·760	2·530	2·334	88
84	3·597	3·181	2·839	2·564	2·342	2·156	89
85	3·384	2·976	2·642	2·376	2·164	1·987	90
86	3·178	2·779	2·455	2·198	1·995	1·827	91
87	2·982	2·591	2·277	2·029	1·835	1·675	92
88	2·793	2·412	2·107	1·869	1·684	1·532	93
89	2·613	2·241	1·946	1·717	1·541	1·398	94
90	2·441	2·079	1·793	1·574	1·406	1·271	95
91	2·277	1·925	1·649	1·439	1·280	1·153	96
92	2·120	1·779	1·513	1·312	1·161	1·041	97
93	1·971	1·640	1·384	1·192	1·049	·936	98
94	1·829	1·509	1·263	1·080	·944	·837	99
95	1·693	1·385	1·149	·974	·845	·742	100
96	1·565	1·267	1·041	·874	·749	·644	101
97	1·442	1·155	·938	·777	·651	·530	102
98	1·325	1·048	·838	·677	·536	·359	103
99	1·211	·942	·734	·559	·364	...	104

MALES.

$3\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
20	50256·	48430·	46627·	44840·	43072·	41338·	25
21	48231·	46476·	44745·	43026·	41327·	39659·	26
22	46284·	44597·	42934·	41283·	39648·	38044·	27
23	44412·	42793·	41193·	39606·	38034·	36491·	28
24	42613·	41056·	39519·	37993·	36482·	34999·	29
25	40883·	39387·	37910·	36442·	34989·	33562·	30
26	39219·	37782·	36361·	34950·	33553·	32180·	31
27	37619·	36238·	34872·	33516·	32171·	30850·	32
28	36080·	34753·	33440·	32135·	30841·	29570·	33
29	34600·	33324·	32062·	30807·	29562·	28338·	34
30	33175·	31950·	30736·	29528·	28330·	27153·	35
31	31805·	30627·	29460·	28298·	27144·	26011·	36
32	30486·	29354·	28231·	27113·	26003·	24911·	37
33	29217·	28129·	27049·	25973·	24903·	23852·	38
34	27995·	26949·	25910·	24874·	23845·	22831·	39
35	26818·	25813·	24813·	23816·	22824·	21847·	40
36	25685·	24718·	23757·	22796·	21840·	20899·	41
37	24593·	23664·	22738·	21814·	20892·	19984·	42
38	23542·	22648·	21758·	20866·	19978·	19102·	43
39	22528·	21669·	20811·	19953·	19096·	18251·	44
40	21552·	20725·	19899·	19071·	18245·	17429·	45
41	20610·	19814·	19019·	18220·	17424·	16636·	46
42	19701·	18936·	18169·	17400·	16631·	15870·	47
43	18824·	18088·	17350·	16608·	15865·	15130·	48
44	17978·	17270·	16558·	15842·	15125·	14415·	49
45	17161·	16479·	15794·	15103·	14410·	13724·	50
46	16372·	15716·	15056·	14388·	13719·	13055·	51
47	15610·	14979·	14342·	13697·	13050·	12408·	52
48	14873·	14266·	13651·	13029·	12403·	11781·	53
49	14161·	13577·	12984·	12383·	11777·	11175·	54
50	13472·	12910·	12338·	11757·	11170·	10588·	55
51	12806·	12264	11713·	11151·	10583·	10019·	56
52	12161·	11639·	11107·	10564·	10015·	9468·0	57
53	11536·	11035·	10521·	9995·6	9463·7	8934·1	58
54	10932·	10449·	9953·1	9445·0	8929·8	8416·7	59
55	10346·	9881·2	9402·6	8911·3	8412·4	7915·2	60
56	9778·7	9331·5	8869·5	8394·0	7911·0	7429·3	61
57	9228·9	8798·5	8352·8	7893·0	7425·1	6958·6	62
58	8696·2	8282·1	7852·0	7407·3	6954·4	6502·8	63
59	8179·7	7781·6	7366·8	6937·0	6498·8	6061·6	64

MALES.

$3\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
60	7679·4	7296·8	6896·8	6481·6	6057·7	5635·1	65
61	7194·8	6827·3	6441·7	6040·7	5631·2	5222·9	66
62	6725·4	6372·6	6001·4	5614·5	5219·0	4825·1	67
63	6271·2	5932·8	5575·6	5202·6	4821·4	4441·8	68
64	5831·9	5507·6	5164·3	4805·3	4438·2	4073·2	69
65	5407·3	5097·1	4767·5	4422·4	4069·7	3719·5	70
66	4997·6	4701·1	4385·3	4054·2	3716·0	3380·7	71
67	4602·7	4320·0	4017·9	3701·0	3377·4	3057·4	72
68	4222·7	3953·7	3665·5	3362·8	3054·1	2749·8	73
69	3858·0	3602·5	3328·2	3040·0	2746·7	2458·4	74
70	3508·7	3266·8	3006·5	2733·1	2455·4	2183·5	75
71	3175·1	2946·8	2700·7	2442·4	2180·7	1925·6	76
72	2857·7	2643·0	2411·2	2168·3	1922·9	1684·9	77
73	2556·8	2355·7	2138·5	1911·1	1682·4	1461·8	78
74	2272·7	2085·4	1882·9	1671·3	1459·5	1256·5	79
75	2006·0	1832·4	1644·6	1449·1	1254·3	1069·2	80
76	1757·0	1597·0	1424·2	1244·7	1067·2	899·73	81
77	1526·0	1379·6	1221·6	1058·4	897·90	748·05	82
78	1313·2	1180·2	1037·1	889·90	746·40	613·78	83
79	1118·8	999·10	870·56	739·21	612·32	496·42	84
80	942·82	836·06	721·84	605·95	495·15	395·24	85
81	785·05	690·86	590·53	489·58	394·15	309·34	86
82	645·22	563·08	476·07	389·34	308·40	237·61	87
83	522·79	452·10	377·70	304·33	236·84	178·83	88
84	417·05	357·09	294·47	233·45	178·19	131·62	89
85	327·11	277·06	225·25	175·43	131·11	94·541	90
86	251·85	210·80	168·74	128·91	94·148	66·130	91
87	190·03	157·01	123·58	92·427	65·831	44·935	92
88	140·25	114·26	88·284	64·525	44·715	29·582	93
89	101·05	81·070	61·385	43·752	29·425	18·814	94
90	70·920	55·947	41·441	28·736	18·705	11·523	95
91	48·365	37·461	27·089	18·230	11·450	6·7728	96
92	31·966	24·269	17·095	11·134	6·7265	3·8062	97
93	20·418	15·167	10·382	6·5247	3·7778	2·0367	98
94	12·565	9·1132	6·0462	3·6546	2·0202	1·0330	99
95	7·4234	5·2459	3·3637	1·9485	1·0240	·4943	100
96	4·1952	2·8816	1·7802	·9845	·4895	·2219	101
97	2·2587	1·5041	·8922	·4690	·2196	·0929	102
98	1·1533	·7425	·4213	·2096	·0919	·0361	103
99	·5559	·3449	·1865	·0873	·0356	·0129	104

MALES.

$3\frac{1}{2}$ PER CENT. — COMMUTATION TABLE. — $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
20	1080449·	1030193·	981763·	935136·	890296·	847224·	25
21	1029691·	981460·	934984·	890239·	847213·	805886·	26
22	980973·	934689·	890092·	847158·	805875·	766227·	27
23	934221·	889809·	847016·	805823·	766217·	728183·	28
24	889355·	846742·	805686·	766167·	728174·	691692·	29
25	846304·	805421·	766034·	728124·	691682·	656693·	30
26	804996·	765777·	727995·	691634·	656684·	623131·	31
27	765367·	727748·	691510·	656638	623122·	590951·	32
28	727350·	691270·	656517·	623077·	590942·	560101·	33
29	690886·	656286·	622962·	590900·	560093·	530531·	34
30	655912·	622737·	590787·	560051·	530523·	502193·	35
31	622374·	590569·	559942·	530482·	502184·	475040·	36
32	590216·	559730·	530376·	502145·	475032·	449029·	37
33	559389·	530172·	502043·	474994·	449021·	424118·	38
34	529839·	501844·	474895·	448985·	424111·	400266·	39
35	501519·	474701·	448888·	424075·	400259·	377435·	40
36	474384·	448699·	423981·	400224·	377428·	355588·	41
37	448390·	423797·	400133·	377395·	355581·	334689·	42
38	423497·	399955·	377307·	355549·	334683·	314705·	43
39	399660·	377132·	355463·	334652·	314699·	295603·	44
40	376844·	355292·	334567·	314668·	295597·	277352·	45
41	355010·	334400·	314586·	295567·	277347·	259923·	46
42	334124·	314423·	295487·	277318·	259918·	243287·	47
43	314152·	295328·	277240·	259890·	243282·	227417·	48
44	295060·	277082·	259812·	243254·	227412·	212287·	49
45	276819·	259658·	243179·	227385·	212282·	197872·	50
46	259399·	243027·	227311·	212255·	197867·	184148·	51
47	242771·	227161·	212182·	197840·	184143·	171093·	52
48	226907·	212034·	197768·	184117·	171088·	158685·	53
49	211786·	197625·	184048·	171064·	158681·	146904·	54
50	197376·	183904·	170994·	158656·	146899·	135729·	55
51	183658·	170852·	158588·	146875·	135724·	125141·	56
52	170608·	158447·	146808·	135701·	125137·	115122·	57
53	158205·7	146669·7	135634·7	125113·7	115118·1	105654·4	58
54	146429·2	135497·2	125048·2	115095·1	105650·1	96720·3	59
55	135257·1	124911·1	115029·9	105627·3	96716·0	88303·6	60
56	124673·1	114894·4	105562·9	96693·4	88299·4	80388·4	61
57	114657·4	105428·5	96630·0	88277·2	80384·2	72959·1	62
58	105192·5	96496·3	88214·2	80362·2	72954·9	66000·5	63
59	96261·6	88081·9	80300·3	72933·5	65996·5	59497·7	64

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

MALES.

3½ PER CENT. COMMUTATION TABLE. **3½ PER CENT.**

Age at Entry	Years Elapsed since Date of Purchase: 0	1	2	3	4	5 or more	Age Attained
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
60	87848.4	80169.0	72872.2	65975.4	59493.8	53436.1	65
61	79936.7	72741.9	65914.6	59472.9	53432.2	47801.0	66
62	72511.0	65785.6	59413.0	53411.6	47797.1	42578.1	67
63	65556.6	59285.4	53352.6	47777.0	42574.4	37753.0	68
64	59058.5	53226.6	47719.0	42554.7	37749.4	33311.2	69
65	53002.0	47594.7	42497.6	37730.1	33307.7	29238.0	70
66	47372.7	42375.1	37674.0	33288.7	29234.5	25518.5	71
67	42156.8	37554.1	33234.1	29216.2	25515.2	22137.8	72
68	37339.2	33116.5	29162.8	25497.3	22134.5	19080.4	73
69	32906.0	29048.0	25445.5	22117.3	19077.3	16330.6	74
70	28842.7	25334.0	22067.2	19060.7	16327.6	13872.2	75
71	25134.4	21959.3	19012.5	16311.8	13869.4	11688.7	76
72	21766.2	18908.5	16265.5	13854.3	11686.0	9763.1	77
73	18722.7	16165.9	13810.2	11671.7	9760.6	8078.2	78
74	15988.2	13715.5	11630.1	9747.2	8075.9	6616.4	79
75	13546.3	11540.3	9707.9	8063.3	6614.2	5359.9	80
76	11380.8	9623.8	8026.8	6602.6	5357.9	4290.7	81
77	9474.42	7948.42	6568.82	5347.22	4288.82	3390.92	82
78	7809.67	6496.47	5316.27	4279.17	3389.27	2642.87	83
79	6369.08	5250.28	4251.18	3380.62	2641.41	2029.09	84
80	5134.49	4191.67	3355.61	2633.77	2027.82	1532.67	85
81	4087.60	3302.55	2611.69	2021.16	1531.58	1137.43	86
82	3210.20	2564.98	2001.90	1525.83	1136.49	828.09	87
83	2484.24	1961.45	1509.35	1131.65	827.32	590.48	88
84	1891.90	1474.85	1117.76	823.29	589.84	411.65	89
85	1415.99	1088.88	811.82	586.57	411.14	280.03	90
86	1039.939	788.089	577.289	408.549	279.639	185.491	91
87	748.239	558.209	401.199	277.619	185.192	119.361	92
88	526.460	386.210	271.950	183.666	119.141	74.426	93
89	361.526	260.476	179.406	118.021	74.269	44.844	94
90	241.779	170.859	114.912	73.471	44.735	26.030	95
91	157.102	108.737	71.276	44.187	25.957	14.507	96
92	98.9245	66.9585	42.6895	25.5945	14.4605	7.7340	97
93	60.1973	39.7793	24.6123	14.2303	7.7056	3.9278	98
94	35.2903	22.7253	13.6121	7.5659	3.9113	1.8911	99
95	19.8636	12.4402	7.1943	3.8306	1.8821	.8581	100
96	10.6948	6.4996	3.6180	1.8378	.8533	.3638	101
97	5.4855	3.2268	1.7227	.8305	.3615	.1419	102
98	2.6675	1.5142	.7717	.3504	.1408	.0490	103
99	1.2231	.6672	.3223	.1358	.0485	.0129	104

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

MALES.

$3\frac{1}{2}$ PER CENT. VALUE OF AN ANNUITY OF 1. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
20	20·499	20·272	20·056	19·855	19·670	19·495	25
21	20·349	20·117	19·896	19·691	19·501	19·321	26
22	20·195	19·958	19·732	19·521	19·326	19·140	27
23	20·035	19·793	19·562	19·346	19·146	18·955	28
24	19·871	19·624	19·387	19·166	18·960	18·763	29
25	19·701	19·449	19·207	18·981	18·769	18·567	30
26	19·525	19·269	19·021	18·789	18·572	18·364	31
27	19·345	19·083	18·830	18·592	18·369	18·156	32
28	19·159	18·891	18·632	18·389	18·161	17·942	33
29	18·968	18·694	18·430	18·181	17·947	17·721	34
30	18·772	18·491	18·221	17·966	17·726	17·495	35
31	18·569	18·283	18·007	17·746	17·500	17·264	36
32	18·360	18·068	17·787	17·520	17·269	17·026	37
33	18·146	17·848	17·560	17·288	17·031	16·781	38
34	17·926	17·622	17·329	17·050	16·786	16·532	39
35	17·701	17·390	17·091	16·806	16·537	16·276	40
36	17·469	17·153	16·847	16·557	16·281	16·015	41
37	17·232	16·909	16·597	16·301	16·020	15·748	42
38	16·989	16·660	16·341	16·039	15·753	15·475	43
39	16·740	16·404	16·080	15·772	15·479	15·197	44
40	16·485	16·144	15·814	15·500	15·202	14·913	45
41	16·226	15·877	15·541	15·222	14·918	14·624	46
42	15·960	15·605	15·263	14·938	14·629	14·330	47
43	15·689	15·327	14·979	14·649	14·335	14·031	48
44	15·413	15·045	14·690	14·355	14·036	13·727	49
45	15·131	14·757	14·397	14·056	13·732	13·418	50
46	14·845	14·463	14·098	13·752	13·423	13·105	51
47	14·553	14·165	13·795	13·443	13·111	12·790	52
48	14·256	13·863	13·487	13·131	12·795	12·469	53
49	13·956	13·557	13·175	12·815	12·474	12·146	54
50	13·651	13·245	12·860	12·495	12·151	11·819	55
51	13·342	12·931	12·540	12·171	11·824	11·490	56
52	13·030	12·613	12·217	11·846	11·495	11·159	57
53	12·714	12·291	11·891	11·517	11·164	10·826	58
54	12·395	11·968	11·564	11·186	10·831	10·492	59
55	12·073	11·641	11·234	10·853	10·497	10·156	60
56	11·749	11·312	10·902	10·519	10·162	9·820	61
57	11·424	10·982	10·569	10·184	9·826	9·485	62
58	11·096	10·651	10·235	9·849	9·490	9·150	63
59	10·768	10·319	9·900	9·514	9·155	8·815	64

MALES.

$3\frac{1}{2}$ PER CENT. VALUE OF AN ANNUITY OF 1. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
60	10·440	9·987	9·566	9·179	8·821	8·483	65
61	10·110	9·655	9·233	8·845	8·489	8·152	66
62	9·782	9·323	8·900	8·513	8·158	7·824	67
63	9·453	8·993	8·569	8·183	7·830	7·500	68
64	9·127	8·664	8·240	7·856	7·506	7·178	69
65	8·802	8·338	7·914	7·532	7·184	6·861	70
66	8·479	8·014	7·591	7·211	6·867	6·548	71
67	8·159	7·693	7·271	6·894	6·555	6·241	72
68	7·843	7·376	6·956	6·582	6·247	5·939	73
69	7·529	7·064	6·645	6·275	5·946	5·643	74
70	7·220	6·755	6·340	5·974	5·650	5·353	75
71	6·916	6·452	6·040	5·679	5·360	5·070	76
72	6·617	6·155	5·746	5·390	5·077	4·794	77
73	6·323	5·862	5·458	5·107	4·802	4·526	78
74	6·035	5·577	5·177	4·832	4·534	4·266	79
75	5·753	5·298	4·903	4·564	4·273	4·013	80
76	5·477	5·026	4·636	4·304	4·021	3·769	81
77	5·209	4·762	4·377	4·052	3·777	3·533	82
78	4·947	4·504	4·126	3·809	3·541	3·306	83
79	4·693	4·255	3·883	3·573	3·314	3·088	84
80	4·446	4·014	3·649	3·347	3·095	2·878	85
81	4·207	3·780	3·423	3·129	2·886	2·677	86
82	3·975	3·555	3·205	2·919	2·685	2·485	87
83	3·752	3·339	2·996	2·718	2·493	2·302	88
84	3·537	3·130	2·796	2·527	2·310	2·128	89
85	3·329	2·930	2·604	2·344	2·136	1·962	90
86	3·129	2·739	2·421	2·169	1·970	1·805	91
87	2·938	2·555	2·247	2·004	1·813	1·656	92
88	2·754	2·380	2·081	1·846	1·664	1·516	93
89	2·578	2·213	1·923	1·698	1·524	1·384	94
90	2·409	2·054	1·773	1·557	1·392	1·259	95
91	2·248	1·903	1·631	1·424	1·267	1·142	96
92	2·095	1·759	1·497	1·299	1·150	1·032	97
93	1·948	1·623	1·371	1·181	1·040	·929	98
94	1·809	1·494	1·251	1·070	·936	·831	99
95	1·676	1·371	1·139	·966	·838	·736	100
96	1·549	1·256	1·032	·867	·743	·639	101
97	1·429	1·145	·931	·771	·646	·527	102
98	1·313	1·039	·832	·672	·533	·357	103
99	1·200	·934	·728	·556	·362	...	104

MALES.

VALUE OF AN ANNUITY OF 1.

Age.	2¼ %		2¾ %		3¼ %		Age.
	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	
x	$a_{[x]}$	a_x	$a_{[x]}$	a_x	$a_{[x]}$	a_x	x
20	25·718	...	23·395	...	21·394	...	20
21	25·463	...	23·189	...	21·228	...	21
22	25·203	...	22·979	...	21·058	...	22
23	24·937	...	22·764	...	20·882	...	23
24	24·664	...	22·542	...	20·700	...	24
25	24·387	24·131	22·315	22·081	20·514	20·299	25
26	24·105	23·849	22·082	21·850	20·321	20·107	26
27	23·816	23·561	21·843	21·612	20·124	19·910	27
28	23·520	23·266	21·599	21·368	19·920	19·707	28
29	23·218	22·966	21·349	21·117	19·712	19·498	29
30	22·912	22·659	21·093	20·862	19·497	19·284	30
31	22·598	22·348	20·831	20·600	19·277	19·064	31
32	22·280	22·030	20·563	20·332	19·050	18·837	32
33	21·955	21·706	20·289	20·059	18·818	18·605	33
34	21·625	21·375	20·009	19·779	18·580	18·367	34
35	21·289	21·040	19·723	19·493	18·336	18·123	35
36	20·947	20·698	19·432	19·202	18·087	17·873	36
37	20·600	20·350	19·135	18·904	17·831	17·617	37
38	20·247	19·998	18·831	18·600	17·570	17·355	38
39	19·889	19·639	18·523	18·292	17·303	17·087	39
40	19·526	19·276	18·209	17·977	17·029	16·813	40
41	19·158	18·907	17·889	17·656	16·752	16·533	41
42	18·786	18·534	17·565	17·330	16·468	16·248	42
43	18·409	18·155	17·236	16·999	16·179	15·958	43
44	18·027	17·773	16·901	16·663	15·884	15·661	44
45	17·642	17·385	16·562	16·322	15·585	15·360	45
46	17·252	16·994	16·218	15·976	15·281	15·053	46
47	16·860	16·599	15·870	15·626	14·971	14·742	47
48	16·464	16·201	15·519	15·271	14·658	14·425	48
49	16·065	15·799	15·163	14·913	14·340	14·105	49
50	15·664	15·395	14·804	14·551	14·018	13·779	50
51	15·261	14·988	14·442	14·185	13·693	13·450	51
52	14·855	14·579	14·078	13·817	13·364	13·117	52
53	14·449	14·169	13·711	13·446	13·033	12·781	53
54	14·042	13·758	13·343	13·073	12·698	12·442	54
55	13·634	13·345	12·972	12·698	12·361	12·101	55
56	13·227	12·932	12·601	12·321	12·023	11·757	56
57	12·819	12·520	12·228	11·944	11·682	11·411	57
58	12·412	12·107	11·857	11·567	11·340	11·064	58
59	12·008	11·696	11·486	11·188	10·999	10·715	59
60	11·605	11·288	11·114	10·812	10·657	10·367	60
61	11·204	10·881	10·745	10·435	10·315	10·018	61
62	10·807	10·476	10·376	10·060	9·973	9·670	62
63	10·413	10·075	10·010	9·687	9·633	9·323	63
64	10·023	9·678	9·647	9·317	9·295	8·977	64

MALES.

VALUE OF AN ANNUITY OF 1.

Age.	$2\frac{1}{4}$ %		$2\frac{3}{4}$ %		$3\frac{1}{4}$ %		Age.
x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	x
65	9·637	9·285	9·288	8·949	8·959	8·634	65
66	9·256	8·896	8·932	8·586	8·626	8·293	66
67	8·881	8·513	8·580	8·226	8·296	7·954	67
68	8·512	8·137	8·233	7·871	7·969	7·620	68
69	8·149	7·766	7·891	7·521	7·647	7·290	69
70	7·793	7·402	7·555	7·177	7·329	6·964	70
71	7·444	7·045	7·225	6·839	7·016	6·643	71
72	7·103	6·696	6·901	6·507	6·709	6·327	72
73	6·769	6·355	6·584	6·183	6·408	6·018	73
74	6·444	6·022	6·275	5·865	6·113	5·715	74
75	6·127	5·698	5·972	5·556	5·825	5·419	75
76	5·819	5·384	5·678	5·255	5·543	5·130	76
77	5·521	5·078	5·392	4·961	5·268	4·849	77
78	5·231	4·783	5·114	4·677	5·002	4·575	78
79	4·951	4·497	4·845	4·402	4·742	4·310	79
80	4·680	4·221	4·584	4·136	4·491	4·053	80
81	4·419	3·956	4·332	3·879	4·248	3·805	81
82	4·167	3·700	4·088	3·632	4·012	3·565	82
83	3·925	3·455	3·854	3·394	3·785	3·335	83
84	3·692	3·220	3·628	3·166	3·567	3·113	84
85	3·469	2·996	3·412	2·948	3·356	2·901	85
86	3·255	2·782	3·204	2·739	3·154	2·697	86
87	3·050	2·578	3·004	2·540	2·959	2·503	87
88	2·855	2·384	2·814	2·350	2·773	2·318	88
89	2·668	2·200	2·631	2·170	2·595	2·142	89
90	2·490	2·025	2·457	1·999	2·425	1·974	90
91	2·320	1·860	2·291	1·838	2·262	1·816	91
92	2·159	1·705	2·133	1·685	2·107	1·666	92
93	2·005	1·558	1·982	1·541	1·959	1·524	93
94	1·859	1·420	1·839	1·405	1·819	1·391	94
95	1·721	1·291	1·702	1·278	1·685	1·265	95
96	1·589	1·169	1·573	1·158	1·557	1·147	96
97	1·463	1·055	1·449	1·046	1·435	1·037	97
98	1·343	·949	1·331	·940	1·319	·933	98
99	1·227	·848	1·216	·841	1·205	·834	99
100	...	·750	...	·744	...	·739	100
101	...	·651	...	·646	...	·642	101
102	...	·535	...	·532	...	·528	102
103	...	·362	...	·360	...	·358	103

MALES.

VALUE OF AN ANNUITY OF 1.

Age. x	4% At Date of Purchase. $a_{[x]}$	4% After Five Years from Purchase. a_x	4½% At Date of Purchase. $a_{[x]}$	4½% After Five Years from Purchase. a_x	5% At Date of Purchase. $a_{[x]}$	5% After Five Years from Purchase. a_x	Age. x
20	18·884	...	17·475	...	16·237	...	20
21	18·762	...	17·374	...	16·154	...	21
22	18·635	...	17·270	...	16·067	...	22
23	18·504	...	17·161	...	15·976	...	23
24	18·368	...	17·047	...	15·882	...	24
25	18·227	18·037	16·931	16·755	15·783	15·620	25
26	18·081	17·892	16·808	16·633	15·681	15·518	26
27	17·930	17·741	16·681	16·506	15·574	15·411	27
28	17·775	17·586	16·550	16·375	15·463	15·300	28
29	17·614	17·424	16·414	16·238	15·347	15·183	29
30	17·448	17·258	16·273	16·097	15·227	15·063	30
31	17·275	17·086	16·127	15·951	15·102	14·938	31
32	17·099	16·909	15·976	15·799	14·972	14·807	32
33	16·916	16·726	15·819	15·643	14·837	14·672	33
34	16·728	16·538	15·657	15·480	14·698	14·532	34
35	16·534	16·343	15·490	15·312	14·553	14·386	35
36	16·335	16·143	15·318	15·139	14·403	14·235	36
37	16·130	15·937	15·140	14·959	14·248	14·079	37
38	15·919	15·725	14·957	14·775	14·087	13·917	38
39	15·703	15·507	14·768	14·585	13·922	13·750	39
40	15·480	15·284	14·572	14·389	13·750	13·578	40
41	15·252	15·055	14·372	14·187	13·574	13·400	41
42	15·019	14·820	14·166	13·980	13·392	13·216	42
43	14·781	14·579	13·955	13·766	13·205	13·027	43
44	14·536	14·333	13·738	13·548	13·012	12·832	44
45	14·286	14·081	13·516	13·323	12·814	12·631	45
46	14·031	13·823	13·290	13·093	12·611	12·426	46
47	13·771	13·561	13·056	12·858	12·402	12·214	47
48	13·506	13·293	12·819	12·616	12·188	11·997	48
49	13·236	13·019	12·575	12·371	11·969	11·774	49
50	12·962	12·742	12·328	12·119	11·745	11·547	50
51	12·683	12·459	12·076	11·863	11·516	11·314	51
52	12·400	12·172	11·819	11·603	11·283	11·077	52
53	12·113	11·881	11·558	11·338	11·045	10·835	53
54	11·823	11·586	11·294	11·069	10·803	10·588	54
55	11·529	11·288	11·026	10·795	10·557	10·337	55
56	11·233	10·987	10·754	10·518	10·308	10·083	56
57	10·935	10·682	10·479	10·238	10·055	9·824	57
58	10·633	10·375	10·202	9·955	9·799	9·562	58
59	10·331	10·066	9·922	9·669	9·540	9·297	59
60	10·027	9·756	9·641	9·381	9·279	9·030	60
61	9·721	9·444	9·357	9·091	9·016	8·760	61
62	9·416	9·132	9·073	8·800	8·751	8·488	62
63	9·111	8·819	8·788	8·508	8·484	8·214	63
64	8·805	8·506	8·503	8·215	8·217	7·940	64

MALES.

VALUE OF AN ANNUITY OF 1.

Age.	4%		4½%		5%		Age.
x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	x
65	8·502	8·194	8·218	7·922	7·950	7·664	65
66	8·199	7·884	7·934	7·630	7·683	7·389	66
67	7·898	7·575	7·650	7·338	7·416	7·114	67
68	7·599	7·268	7·369	7·048	7·150	6·840	68
69	7·304	6·964	7·089	6·760	6·885	6·567	69
70	7·011	6·663	6·812	6·475	6·623	6·296	70
71	6·723	6·366	6·538	6·193	6·363	6·027	71
72	6·438	6·074	6·268	5·914	6·105	5·761	72
73	6·158	5·786	6·001	5·639	5·851	5·498	73
74	5·883	5·502	5·739	5·368	5·600	5·239	74
75	5·614	5·225	5·481	5·102	5·353	4·985	75
76	5·350	4·954	5·228	4·842	5·111	4·734	76
77	5·092	4·689	4·980	4·587	4·873	4·489	77
78	4·841	4·430	4·739	4·338	4·640	4·249	78
79	4·596	4·179	4·503	4·095	4·413	4·015	79
80	4·358	3·935	4·273	3·859	4·191	3·786	80
81	4·127	3·699	4·050	3·631	3·975	3·565	81
82	3·903	3·470	3·833	3·409	3·765	3·350	82
83	3·687	3·250	3·623	3·195	3·562	3·142	83
84	3·477	3·037	3·420	2·988	3·364	2·941	84
85	3·276	2·833	3·224	2·789	3·174	2·747	85
86	3·081	2·637	3·035	2·598	2·989	2·560	86
87	2·894	2·450	2·853	2·415	2·812	2·382	87
88	2·715	2·271	2·677	2·240	2·641	2·210	88
89	2·543	2·100	2·510	2·073	2·476	2·047	89
90	2·378	1·938	2·348	1·914	2·319	1·891	90
91	2·221	1·784	2·194	1·763	2·167	1·743	91
92	2·070	1·638	2·046	1·620	2·022	1·602	92
93	1·926	1·500	1·905	1·484	1·884	1·468	93
94	1·789	1·369	1·770	1·356	1·751	1·342	94
95	1·659	1·247	1·642	1·235	1·625	1·223	95
96	1·534	1·131	1·519	1·121	1·504	1·111	96
97	1·415	1·023	1·402	1·014	1·389	1·005	97
98	1·301	·921	1·290	·913	1·278	·906	98
99	1·190	·824	1·180	·817	1·170	·811	99
100	...	·730	...	·725	...	·720	100
101	...	·635	...	·631	...	·626	101
102	...	·524	...	·521	...	·517	102
103	...	·356	...	·354	...	·352	103

BRITISH OFFICES LIFE ANNUITY TABLES, 1893.

SINGLE LIVES—FEMALES.

THE graduated numbers living, which form the fundamental basis of the following Mortality and Monetary Tables, are, at all ages at date of purchase, the sums of two partial series, in respect of each of which the following relations hold good :—

$$\log\lambda_{[x]+t}=\log k_t+(x+t)\log s+c^{x+t}\log g_t$$

$$\mu_{[x]+t}=-\frac{d}{dt}\log_e\lambda_{[x]+t}=\mathrm{A}_t+\mathrm{B}_t c^{x+t}$$

$$\mathrm{colog}_{10}(p_{[x]+t})=-\Delta_t\log_{10}\lambda_{[x]+t}=\alpha_t+\beta_t c^{x+t}$$

$$\log_{10}s=-\alpha_5$$

where λ represents the number living in the partial series, and $\log k$, $\log g$, A, B, and α, β, are constant for all values of x (the age at purchase), but vary with t (the duration from purchase); while $\log s$, and c, are constant for all values of x and t. The values of these several quantities are stated below separately in respect of each of the two partial series.

Representing the numbers living, and the force of mortality, by $\lambda^{(1)}$, $\mu^{(1)}$, under the *First* Series, by $\lambda^{(2)}$, $\mu^{(2)}$, under the *Second* Series; and by l, μ, under the Final (Combined) Table, we have—

$$l_{[x]+t}=\lambda^{(1)}_{[x]+t}+\lambda^{(2)}_{[x]+t}$$

$$\mu_{[x]+t}=\frac{\mu^{(1)}_{[x]+t}\lambda^{(1)}_{[x]+t}+\mu^{(2)}_{[x]+t}\lambda^{(2)}_{[x]+t}}{l_{[x]+t}}$$

FIRST SERIES.

$t=$	0	1	2	3	4	5 and upwards
A_t	−·008 749 823	−·008 519 565	−·008 059 048	−·007 598 531	−·007 138 014	−·006 907 755
B_t	·000 059 290	·000 073 799	·000 086 203	·000 096 753	·000 102 947	·000 105 671
α_t	−·003 750	−·003 600	−·003 400	−·003 200	−·003 050	−·003 000
β_t	·000 030 335	·000 036 425	·000 041 619	·000 045 378	·000 047 369	·000 047 960
$\log_{10}\mathrm{B}_t$	$\bar{5}$·772 978	$\bar{5}$·868 052	$\bar{5}$·935 524	$\bar{5}$·985 663	$\bar{4}$·012 615	$\bar{4}$·023 956
$\log_{10}\beta_t$	$\bar{5}$·481 940	$\bar{5}$·561 403	$\bar{5}$·619 291	$\bar{5}$·656 844	$\bar{5}$·675 490	$\bar{5}$·680 879
$\log_{10}k_t$	4·701 018	4·701 768	4·702 368	4·702 768	4·702 968	4·703 018
$\log_{10}g_t$	−·000 566 459	−·000 546 795	−·000 534 358	−·000 527 722	−·000 525 086	−·000 524 495

SECOND SERIES.

$t=$	0	1	2	3	4	5 and upwards
A_t	·014 068 795	·014 575 364	·015 588 501	·016 601 639	·017 614 776	·018 121 345
B_t	·000 528 424	·000 657 744	·000 768 296	·000 862 318	·000 917 528	·000 941 803
α_t	·006 220	·006 550	·006 990	·007 430	·007 760	·007 870
β_t	·000 270 361	·000 324 644	·000 370 933	·000 404 435	·000 422 177	·000 427 448
$\log_{10}\mathrm{B}_t$	$\bar{4}$·722 983	$\bar{4}$·818 057	$\bar{4}$·885 528	$\bar{4}$·935 667	$\bar{4}$·962 619	$\bar{4}$·973 960
$\log_{10}\beta_t$	$\bar{4}$·431 944	$\bar{4}$·511 407	$\bar{4}$·569 296	$\bar{4}$·606 849	$\bar{4}$·625 495	$\bar{4}$·630 884
$\log_{10}k_t$	4·817 410	4·819 060	4·820 380	4·821 260	4·821 700	4·821 810
$\log_{10}g_t$	−·005 048 626	−·004 873 364	−·004 762 521	−·004 703 376	−·004 679 881	−·004 674 610

After age 75, the value of $\lambda^{(2)}$ becomes practically insignificant.

ABSOLUTE CONSTANTS (applying to both partial Series) :—

$c=1\cdot091\,440\,4$; $\log_{10}c=\cdot038$; $\log_e c=\cdot087\,498\,2$.

For values of $[x]=20$ to 24, and of $t=0$ to 5, a slight adjustment has been made in the final Table.

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$l_{[x]}$	$l_{[x]+1}$	$l_{[x]+2}$	$l_{[x]+3}$	$l_{[x]+4}$	l_{x+5}	$x+5$
20	100000	99729	99357	98877	98300	97658	25
21	99335	99065	98694	98215	97638	96993	26
22	98670	98401	98031	97552	96973	96323	27
23	98002	97734	97365	96885	96302	95646	28
24	97333	97066	96697	96214	95625	94961	29
25	96658	96392	96022	95535	94939	94266	30
26	95979	95714	95342	94849	94244	93560	31
27	95294	95029	94653	94153	93537	92840	32
28	94601	94335	93954	93445	92817	92105	33
29	93897	93630	93244	92723	92082	91354	34
30	93182	92913	92519	91987	91331	90585	35
31	92454	92182	91780	91235	90562	89797	36
32	91712	91436	91023	90465	89774	88989	37
33	90954	90672	90249	89675	88965	88158	38
34	90178	89890	89457	88864	88133	87303	39
35	89382	89088	88640	88031	87278	86424	40
36	88566	88265	87803	87175	86399	85520	41
37	87729	87419	86942	86294	85494	84589	42
38	86869	86549	86057	85387	84563	83631	43
39	85984	85654	85146	84455	83605	82646	44
40	85074	84733	84208	83495	82620	81633	45
41	84138	83786	83243	82507	81607	80593	46
42	83175	82812	82251	81493	80566	79526	47
43	82185	81810	81232	80451	79499	78433	48
44	81169	80781	80185	79382	78405	77314	49
45	80124	79726	79112	78287	77286	76170	50
46	79054	78643	78012	77166	76141	75002	51
47	77957	77535	76887	76020	74974	73812	52
48	76834	76401	75738	74851	73784	72601	53
49	75688	75245	74565	73660	72572	71370	54
50	74519	74065	73371	72449	71341	70119	55
51	73327	72863	72155	71215	70090	68850	56
52	72115	71642	70920	69964	68820	67560	57
53	70883	70401	69666	68693	67530	66250	58
54	69633	69142	68393	67403	66221	64918	59
55	68365	67863	67100	66092	64889	63561	60
56	67079	66566	65787	64759	63531	62175	61
57	65773	65248	64452	63401	62144	60754	62
58	64447	63908	63091	62013	60723	59292	63
59	63098	62541	61700	60591	59261	57783	64

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase: 0	1	2	3	4	5 or more	Age Attained
$[x]$	$l_{[x]}$	$l_{[x]+1}$	$l_{[x]+2}$	$l_{[x]+3}$	$l_{[x]+4}$	l_{x+5}	$x+5$
60	61721	61143	60273	59127	57751	56217	65
61	60312	59709	58805	57615	56185	54587	66
62	58864	58231	57288	56046	54554	52884	67
63	57371	56703	55713	54413	52851	51101	68
64	55824	55115	54072	52706	51066	49229	69
65	54215	53460	52357	50918	49194	47264	70
66	52537	51729	50560	49042	47229	45204	71
67	50780	49914	48674	47073	45168	43047	72
68	48937	48010	46695	45008	43010	40797	73
69	47004	46012	44621	42847	40759	38459	74
70	44976	43919	42450	40593	38420	36042	75
71	42853	41730	40187	38251	36003	33559	76
72	40637	39451	37838	35832	33520	31025	77
73	38334	37089	35413	33347	30986	28462	78
74	35951	34653	32925	30814	28423	25889	79
75	33501	32160	30391	28251	25850	23331	80
76	31000	29625	27831	25681	23293	20813	81
77	28466	27070	25267	23128	20777	18363	82
78	25920	24516	22723	20617	18328	16006	83
79	23386	21990	20225	18175	15974	13770	84
80	20889	19516	17799	15829	13739	11676	85
81	18455	17122	15473	13604	11648	9747	86
82	16112	14834	13272	11523	9721	7998	87
83	13883	12676	11218	9608	7975	6441	88
84	11793	10670	9331	7874	6421	5082	89
85	9864	8836	7627	6332	5065	3922	90
86	8111	7188	6117	4989	3907	2953	91
87	6547	5734	4804	3843	2941	2106	92
88	5179	4478	3689	2889	2156	1543	93
89	4008	3416	2763	2115	1536	1065	94
90	3027	2541	2014	1503	1059	710	95
91	2228	1839	1426	1035	706	456	96
92	1593	1291	977	689	453	281	97
93	1104	877	646	441	279	165	98
94	739	574	412	271	164	93	99
95	477	362	251	159	92	49	100
96	295	218	147	89	49	25	101
97	175	126	81	47	25	12	102
98	99	69	43	24	12	5	103
99	53	36	21	11	5	2	104

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase: 0	1	2	3	4	5 or more	Age Attained
$[x]$	$\log l_{[x]}$	$\log l_{[x]+1}$	$\log l_{[x]+2}$	$\log l_{[x]+3}$	$\log l_{[x]+4}$	$\log l_{x+5}$	$x+5$
20	5·00000	4·99882	4·99720	4·99510	4·99255	4·98971	25
21	4·99710	·99592	·99429	·99218	·98962	·98674	26
22	·99419	·99300	·99136	·98924	·98665	·98373	27
23	·99123	·99005	·98840	·98626	·98364	·98067	28
24	·98826	·98707	·98541	·98324	·98057	·97755	29
25	·98524	·98404	·98237	·98016	·97744	·97436	30
26	·98218	·98098	·97928	·97703	·97425	·97109	31
27	·97907	·97786	·97613	·97383	·97098	·96774	32
28	·97590	·97467	·97292	·97056	·96763	·96428	33
29	·97265	·97142	·96962	·96719	·96417	·96073	34
30	·96933	·96808	·96623	·96373	·96062	·95706	35
31	·96593	·96465	·96275	·96016	·95695	·95326	36
32	·96243	·96112	·95915	·95648	·95315	·94934	37
33	·95882	·95747	·95544	·95267	·94922	·94526	38
34	·95510	·95371	·95161	·94873	·94514	·94103	39
35	·95125	·94982	·94763	·94464	·94090	·93663	40
36	·94727	·94579	·94351	·94039	·93651	·93207	41
37	·94314	·94161	·93923	·93598	·93194	·92731	42
38	·93886	·93726	·93479	·93139	·92718	·92237	43
39	·93442	·93275	·93016	·92663	·92223	·91722	44
40	·92980	·92805	·92535	·92166	·91709	·91187	45
41	·92499	·92317	·92035	·91649	·91173	·90630	46
42	·91999	·91809	·91514	·91112	·90615	·90051	47
43	·91479	·91281	·90973	·90553	·90036	·89450	48
44	·90939	·90731	·90409	·89972	·89434	·88826	49
45	·90376	·90160	·89824	·89369	·88810	·88178	50
46	·89792	·89566	·89216	·88743	·88162	·87507	51
47	·89186	·88950	·88585	·88093	·87491	·86813	52
48	·88555	·88310	·87931	·87420	·86796	·86094	53
49	·87903	·87648	·87254	·86723	·86077	·85352	54
50	·87227	·86961	·86552	·86003	·85334	·84584	55
51	·86526	·86251	·85827	·85257	·84566	·83790	56
52	·85803	·85517	·85077	·84487	·83771	·82969	57
53	·85054	·84758	·84302	·83691	·82950	·82119	58
54	·84282	·83974	·83501	·82868	·82100	·81237	59
55	·83483	·83163	·82672	·82015	·81217	·80319	60
56	·82659	·82325	·81814	·81130	·80299	·79362	61
57	·81805	·81457	·80924	·80210	·79340	·78357	62
58	·80920	·80556	·79997	·79248	·78335	·77300	63
59	·80002	·79616	·79029	·78241	·77277	·76180	64

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log l_{[x]}$	$\log l_{[x]+1}$	$\log l_{[x]+2}$	$\log l_{[x]+3}$	$\log l_{[x]+4}$	$\log l_{x+5}$	$x+5$
60	4·79043	4·78635	4·78012	4·77179	4·76156	4·74987	65
61	·78040	·77604	·76941	·76054	·74962	·73709	66
62	·76985	·76515	·75806	·74854	·73683	·72332	67
63	·75869	·75361	·74596	·73570	·72305	·70843	68
64	·74682	·74127	·73297	·72186	·70813	·69222	69
65	·73412	·72803	·71897	·70687	·69191	·67453	70
66	·72047	·71373	·70381	·69057	·67421	·65518	71
67	·70569	·69822	·68730	·67277	·65483	·63394	72
68	·68964	·68133	·66927	·65329	·63357	·61063	73
69	·67213	·66287	·64954	·63192	·61022	·58500	74
70	·65298	·64265	·62788	·60845	·58456	·55681	75
71	·63198	·62045	·60409	·58264	·55634	·52581	76
72	·60892	·59606	·57793	·55427	·52530	·49171	77
73	·58358	·56925	·54916	·52306	·49117	·45427	78
74	·55571	·53974	·51753	·48875	·45367	·41312	79
75	·52506	·50732	·48275	·45103	·41246	·36793	80
76	·49136	·47166	·44453	·40961	·36723	·31833	81
77	·45433	·43249	·40255	·36414	·31758	·26394	82
78	·41364	·38945	·35647	·31423	·26312	·20428	83
79	·36896	·34223	·30589	·25947	·20341	·13893	84
80	·31992	·29039	·25040	·19945	·13796	·06729	85
81	·26611	·23355	·18957	·13367	·06625	3·98885	86
82	·20715	·17126	·12294	·06157	3·98770	·90295	87
83	·14248	·10298	·04992	3·98262	·90171	·80893	88
84	·07162	·02816	3·96992	·89617	·80757	·70603	89
85	3·99403	3·94627	·88235	·80155	·70456	·59345	90
86	·90907	·85659	·78650	·69800	·59185	·47030	91
87	·81606	·75844	·68161	·58471	·46856	·33562	92
88	·71427	·65104	·56686	·46079	·33372	·18835	93
89	·60290	·53355	·44134	·32526	·18628	·02733	94
90	·48107	·40504	·30407	·17706	·02508	2·85132	95
91	·34783	·26450	·15397	·01504	2·84886	·65894	96
92	·20213	·11084	2·98987	2·83792	·65626	·44870	97
93	·04285	2·94285	·81049	·64434	·44578	·21895	98
94	2·86870	·75923	·61444	·43278	·21577	1·96792	99
95	·67837	·55854	·40018	·20161	1·96446	·69367	100
96	·47035	·33923	·16606	1·94901	·68989	·39406	101
97	·24305	·09959	1·91025	·67305	·38994	·06678	102
98	1·99468	1·83776	·63078	·37158	·06229	0·70930	103
99	·72333	·55171	·32548	·04227	0·70440	·31886	104

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$d_{[x]}$	$d_{[x]+1}$	$d_{[x]+2}$	$d_{[x]+3}$	$d_{[x]+4}$	d_{x+5}	$x+5$
20	271	372	480	577	642	665	25
21	270	371	479	577	645	670	26
22	269	370	479	579	650	677	27
23	268	369	480	583	656	685	28
24	267	369	483	589	664	695	29
25	266	370	487	596	673	706	30
26	265	372	493	605	684	720	31
27	265	376	500	616	697	735	32
28	266	381	509	628	712	751	33
29	267	386	521	641	728	769	34
30	269	394	532	656	746	788	35
31	272	402	545	673	765	808	36
32	276	413	558	691	785	831	37
33	282	423	574	710	807	855	38
34	288	433	593	731	830	879	39
35	294	448	609	753	854	904	40
36	301	462	628	776	879	931	41
37	310	477	648	800	905	958	42
38	320	492	670	824	932	985	43
39	330	508	691	850	959	1013	44
40	341	525	713	875	987	1040	45
41	352	543	736	900	1014	1067	46
42	363	561	758	927	1040	1093	47
43	375	578	781	952	1066	1119	48
44	388	596	803	977	1091	1144	49
45	398	614	825	1001	1116	1168	50
46	411	631	846	1025	1139	1190	51
47	422	648	867	1046	1162	1211	52
48	433	663	887	1067	1183	1231	53
49	443	680	905	1088	1202	1251	54
50	454	694	922	1108	1222	1269	55
51	464	708	940	1125	1240	1290	56
52	473	722	956	1144	1260	1310	57
53	482	735	973	1163	1280	1332	58
54	491	749	990	1182	1303	1357	59
55	502	763	1008	1203	1328	1386	60
56	513	779	1028	1228	1356	1421	61
57	525	796	1051	1257	1390	1462	62
58	539	817	1078	1290	1431	1509	63
59	557	841	1109	1330	1478	1566	64

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$d_{[x]}$	$d_{[x]+1}$	$d_{[x]+2}$	$d_{[x]+3}$	$d_{[x]+4}$	d_{x+5}	$x+5$
60	578	870	1146	1376	1534	1630	65
61	603	904	1190	1430	1598	1703	66
62	633	943	1242	1492	1670	1783	67
63	668	990	1300	1562	1750	1872	68
64	709	1043	1366	1640	1837	1965	69
65	755	1103	1439	1724	1930	2060	70
66	808	1169	1518	1813	2025	2157	71
67	866	1240	1601	1905	2121	2250	72
68	927	1315	1687	1998	2213	2338	73
69	992	1391	1774	2088	2300	2417	74
70	1057	1469	1857	2173	2378	2483	75
71	1123	1543	1936	2248	2444	2534	76
72	1186	1613	2006	2312	2495	2563	77
73	1245	1676	2066	2361	2524	2573	78
74	1298	1728	2111	2391	2534	2558	79
75	1341	1769	2140	2401	2519	2518	80
76	1375	1794	2150	2388	2480	2450	81
77	1396	1803	2139	2351	2414	2357	82
78	1404	1793	2106	2289	2322	2236	83
79	1396	1765	2050	2201	2204	2094	84
80	1373	1717	1970	2090	2063	1929	85
81	1333	1649	1869	1956	1901	1749	86
82	1278	1562	1749	1802	1723	1557	87
83	1207	1458	1610	1633	1534	1359	88
84	1123	1339	1457	1453	1339	1160	89
85	1028	1209	1295	1267	1143	969	90
86	923	1071	1128	1082	954	787	91
87	813	930	961	902	775	623	92
88	701	789	800	733	613	478	93
89	592	653	648	579	471	355	94
90	486	527	511	444	349	254	95
91	389	413	391	329	250	175	96
92	302	314	288	236	172	116	97
93	227	231	205	162	114	72	98
94	165	162	141	107	71	44	99
95	115	111	92	67	43	24	100
96	77	71	58	40	24	13	101
97	49	45	34	22	13	7	102
98	30	26	19	12	7	3	103
99	17	15	10	6	3	2	104

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log d_{[x]}$	$\log d_{[x]+1}$	$\log d_{[x]+2}$	$\log d_{[x]+3}$	$\log d_{[x]+4}$	$\log d_{x+5}$	$x+5$
20	2·43297	2·57054	2·68124	2·76118	2·80754	2·82282	25
21	·43136	·56937	·68034	·76118	·80956	·82607	26
22	·42975	·56820	·68034	·76268	·81291	·83059	27
23	·42813	·56703	·68124	·76567	·81690	·83569	28
24	·42651	·56703	·68395	·77012	·82217	·84198	29
25	·42488	·56820	·68753	·77525	·82802	·84880	30
26	·42325	·57054	·69285	·78176	·83506	·85733	31
27	·42325	·57519	·69897	·78958	·84323	·86629	32
28	·42488	·58093	·70672	·79796	·85248	·87564	33
29	·42651	·58659	·71684	·80686	·86213	·88593	34
30	·42975	·59550	·72591	·81690	·87274	·89653	35
31	·43457	·60423	·73640	·82802	·88366	·90741	36
32	·44091	·61595	·74663	·83948	·89487	·91960	37
33	·45025	·62634	·75891	·85126	·90687	·93197	38
34	·45939	·63649	·77305	·86392	·91908	·94399	39
35	·46835	·65128	·78462	·87680	·93146	·95617	40
36	·47857	·66464	·79796	·88986	·94399	·96895	41
37	·49136	·67852	·81158	·90309	·95665	·98137	42
38	·50515	·69197	·82607	·91593	·96942	·99344	43
39	·51851	·70586	·83948	·92942	·98182	3·00561	44
40	·53275	·72016	·85309	·94201	·99432	·01703	45
41	·54654	·73480	·86688	·95424	3·00604	·02816	46
42	·55991	·74896	·87967	·96708	·01703	·03862	47
43	·57403	·76193	·89265	·97864	·02776	·04883	48
44	·58883	·77525	·90472	·98989	·03782	·05843	49
45	·59988	·78817	·91645	3·00043	·04766	·06744	50
46	·61384	·80003	·92737	·01072	·05652	·07555	51
47	·62531	·81158	·93802	·01953	·06521	·08314	52
48	·63649	·82151	·94792	·02816	·07298	·09026	53
49	·64640	·83251	·95665	·03663	·07990	·09726	54
50	·65706	·84136	·96473	·04454	·08707	·10346	55
51	·66652	·85003	·97313	·05115	·09342	·11059	56
52	·67486	·85854	·98046	·05843	·10037	·11727	57
53	·68305	·86629	·98811	·06558	·10721	·12450	58
54	·69108	·87448	·99564	·07262	·11494	·13258	59
55	·70070	·88252	3·00346	·08027	·12320	·14176	60
56	·71012	·89154	·01199	·08920	·13226	·15259	61
57	·72016	·90091	·02160	·09934	·14301	·16495	62
58	·73159	·91222	·03262	·11059	·15564	·17869	63
59	·74586	·92480	·04493	·12385	·16967	·19479	64

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log d_{[x]}$	$\log d_{[x]+1}$	$\log d_{[x]+2}$	$\log d_{[x]+3}$	$\log d_{[x]+4}$	$\log d_{x+5}$	$x+5$
60	2·76193	2·93952	3·05918	3·13862	3·18583	3·21219	65
61	·78032	·95617	·07555	·15534	·20358	·23121	66
62	·80140	·97451	·09412	·17377	·22272	·25115	67
63	·82478	·99564	·11394	·19368	·24304	·27231	68
64	·85065	3·01828	·13545	·21484	·26411	·29336	69
65	·87795	·04258	·15806	·23654	·28556	·31387	70
66	·90741	·06781	·18127	·25840	·30643	·33385	71
67	·93752	·09342	·20439	·27990	·32654	·35218	72
68	·96708	·11893	·22712	·30060	·34498	·36884	73
69	·99651	·14333	·24895	·31973	·36173	·38328	74
70	3·02408	·16702	·26881	·33706	·37621	·39498	75
71	·05038	·18837	·28691	·35180	·38810	·40381	76
72	·07408	·20763	·30233	·36399	·39707	·40875	77
73	·09517	·22427	·31513	·37310	·40209	·41044	78
74	·11327	·23754	·32449	·37858	·40381	·40790	79
75	·12743	·24773	·33041	·38039	·40123	·40106	80
76	·13830	·25382	·33244	·37803	·39445	·38917	81
77	·14489	·25600	·33021	·37125	·38274	·37236	82
78	·14737	·25358	·32346	·35965	·36586	·34947	83
79	·14489	·24674	·31175	·34262	·34321	·32098	84
80	·13767	·23477	·29447	·32015	·31450	·28533	85
81	·12483	·21722	·27161	·29137	·27898	·24279	86
82	·10653	·19368	·24279	·25575	·23629	·19229	87
83	·08171	·16376	·20683	·21299	·18583	·13322	88
84	·05038	·12678	·16346	·16227	·12678	·06446	89
85	·01199	·08243	·11227	·10278	·05805	2·98632	90
86	2·96520	·02979	·05231	·03423	2·97955	·89597	91
87	·91009	2·96848	2·98272	2·95521	·88930	·79449	92
88	·84572	·89708	·90309	·86510	·78746	·67943	93
89	·77232	·81491	·81158	·76268	·67302	·55023	94
90	·68664	·72181	·70842	·64738	·54283	·40483	95
91	·58995	·61595	·59218	·51720	·39794	·24304	96
92	·48001	·49693	·45939	·37291	·23553	·06446	97
93	·35603	·36361	·31175	·20952	·05690	1·85733	98
94	·21748	·20952	·14922	·02938	1·85126	·64345	99
95	·06070	·04532	1·96379	1·82607	·63347	·38021	100
96	1·88649	1·85126	·76343	·60206	·38021	·11394	101
97	·69020	·65321	·53148	·34242	·11394	0·84510	102
98	·47712	·41497	·27875	·07918	0·84510	·47712	103
99	·23045	·17609	·00000	0·77815	·47712	·30103	104

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$p_{[x]}$	$p_{[x]+1}$	$p_{[x]+2}$	$p_{[x]+3}$	$p_{[x]+4}$	p_{x+5}	$x+5$
20	·99729	·99628	·99518	·99415	·99348	·99318	25
21	·99729	·99625	·99515	·99412	·99339	·99309	26
22	·99726	·99623	·99513	·99405	·99330	·99298	27
23	·99726	·99621	·99508	·99399	·99318	·99284	28
24	·99726	·99619	·99502	·99387	·99307	·99268	29
25	·99724	·99616	·99492	·99376	·99293	·99250	30
26	·99724	·99609	·99483	·99362	·99275	·99232	31
27	·99722	·99602	·99472	·99346	·99257	·99206	32
28	·99717	·99598	·99458	·99328	·99232	·99186	33
29	·99717	·99586	·99442	·99307	·99211	·99159	34
30	·99713	·99575	·99426	·99286	·99184	·99129	35
31	·99706	·99563	·99405	·99264	·99154	·99101	36
32	·99699	·99547	·99387	·99236	·99127	·99065	37
33	·99690	·99534	·99364	·99209	·99092	·99031	38
34	·99680	·99518	·99339	·99177	·99058	·98992	39
35	·99671	·99497	·99314	·99143	·99022	·98956	40
36	·99660	·99476	·99284	·99111	·98983	·98910	41
37	·99648	·99453	·99254	·99074	·98940	·98869	42
38	·99632	·99433	·99220	·99035	·98899	·98821	43
39	·99616	·99405	·99190	·98992	·98853	·98776	44
40	·99598	·99380	·99154	·98953	·98805	·98726	45
41	·99582	·99353	·99115	·98910	·98757	·98676	46
42	·99563	·99323	·99079	·98862	·98710	·98626	47
43	·99545	·99293	·99038	·98817	·98660	·98573	48
44	·99522	·99261	·98999	·98769	·98610	·98519	49
45	·99504	·99229	·98958	·98721	·98555	·98467	50
46	·99481	·99197	·98917	·98671	·98503	·98415	51
47	·99458	·99163	·98874	·98623	·98451	·98358	52
48	·99437	·99131	·98830	·98573	·98397	·98306	53
49	·99415	·99097	·98785	·98524	·98344	·98247	54
50	·99389	·99063	·98744	·98471	·98288	·98188	55
51	·99369	·99028	·98696	·98422	·98229	·98127	56
52	·99344	·98992	·98651	·98365	·98170	·98062	57
53	·99321	·98956	·98603	·98308	·98105	·97990	58
54	·99293	·98917	·98553	·98247	·98032	·97908	59
55	·99266	·98876	·98499	·98179	·97954	·97821	60
56	·99234	·98830	·98437	·98105	·97866	·97712	61
57	·99202	·98780	·98369	·98017	·97762	·97596	62
58	·99165	·98721	·98290	·97920	·97645	·97454	63
59	·99115	·98657	·98202	·97805	·97506	·97290	64

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$p_{[x]}$	$p_{[x]+1}$	$p_{[x]+2}$	$p_{[x]+3}$	$p_{[x]+4}$	p_{x+5}	$x+5$
60	·99065	·98576	·98100	·97672	·97344	·97100	65
61	·99001	·98485	·97978	·97517	·97156	·96879	66
62	·98924	·98381	·97832	·97340	·96937	·96630	67
63	·98837	·98254	·97665	·97129	·96690	·96336	68
64	·98730	·98107	·97474	·96888	·96403	·96009	69
65	·98608	·97935	·97252	·96614	·96077	·95642	70
66	·98460	·97742	·96997	·96303	·95713	·95227	71
67	·98295	·97517	·96710	·95953	·95304	·94774	72
68	·98105	·97261	·96387	·95561	·94855	·94269	73
69	·97890	·96977	·96024	·95126	·94358	·93715	74
70	·97649	·96656	·95625	·94648	·93810	·93111	75
71	·97380	·96303	·95181	·94124	·93212	·92449	76
72	·97082	·95911	·94698	·93547	·92557	·91740	77
73	·96754	·95479	·94167	·92920	·91854	·90981	78
74	·96390	·95015	·93588	·92240	·91086	·90118	79
75	·95998	·94500	·92957	·91502	·90255	·89207	80
76	·95565	·93944	·92274	·90703	·89351	·88229	81
77	·95096	·93338	·91536	·89834	·88381	·87165	82
78	·94582	·92687	·90732	·88898	·87329	·86030	83
79	·94031	·91973	·89863	·87890	·86203	·84793	84
80	·93426	·91203	·88930	·86798	·84983	·83476	85
81	·92777	·90369	·87922	·85621	·83676	·82054	86
82	·92068	·89471	·86822	·84359	·82272	·80534	87
83	·91306	·88499	·85645	·83002	·80764	·78904	88
84	·90477	·87450	·84382	·81546	·79152	·77165	89
85	·89586	·86314	·83023	·79985	·77427	·75310	90
86	·88618	·85096	·81564	·78316	·75588	·73336	91
87	·87575	·83786	·80002	·76533	·73631	·71241	92
88	·86451	·82380	·78330	·74633	·71553	·69021	93
89	·85241	·80870	·76546	·72614	·69351	·66679	94
90	·83940	·79256	·74643	·70473	·67025	·64213	95
91	·82541	·77530	·72622	·68206	·64577	·61625	96
92	·81042	·75689	·70477	·65817	·62007	·58918	97
93	·79433	·73729	·68210	·63305	·59316	·56101	98
94	·77720	·71649	·65817	·60672	·56513	·53180	99
95	·75887	·69445	·63304	·57923	·53606	·50164	100
96	·73940	·67117	·60667	·55066	·50602	·47067	101
97	·71869	·64664	·57916	·52106	·47516	·43906	102
98	·69675	·62090	·55055	·49058	·44362	·40697	103
99	·67357	·59398	·52094	·45934	·41159	...	104

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase: 0	1	2	3	4	5 or more	Age Attained
$[x]$	$\log p_{[x]}$	$\log p_{[x]+1}$	$\log p_{[x]+2}$	$\log p_{[x]+3}$	$\log p_{[x]+4}$	$\log p_{x+5}$	$x+5$
20	$\bar{1}$·99882	$\bar{1}$·99838	$\bar{1}$·99790	$\bar{1}$·99745	$\bar{1}$·99716	$\bar{1}$·99703	25
21	·99882	·99837	·99789	·99744	·99712	·99699	26
22	·99881	·99836	·99788	·99741	·99708	·99694	27
23	·99881	·99835	·99786	·99738	·99703	·99688	28
24	·99881	·99834	·99783	·99733	·99698	·99681	29
25	·99880	·99833	·99779	·99728	·99692	·99673	30
26	·99880	·99830	·99775	·99722	·99684	·99665	31
27	·99879	·99827	·99770	·99715	·99676	·99654	32
28	·99877	·99825	·99764	·99707	·99665	·99645	33
29	·99877	·99820	·99757	·99698	·99656	·99633	34
30	·99875	·99815	·99750	·99689	·99644	·99620	35
31	·99872	·99810	·99741	·99679	·99631	·99608	36
32	·99869	·99803	·99733	·99667	·99619	·99592	37
33	·99865	·99797	·99723	·99655	·99604	·99577	38
34	·99861	·99790	·99712	·99641	·99589	·99560	39
35	·99857	·99781	·99701	·99626	·99573	·99544	40
36	·99852	·99772	·99688	·99612	·99556	·99524	41
37	·99847	·99762	·99675	·99596	·99537	·99506	42
38	·99840	·99753	·99660	·99579	·99519	·99485	43
39	·99833	·99741	·99647	·99560	·99499	·99465	44
40	·99825	·99730	·99631	·99543	·99478	·99443	45
41	·99818	·99718	·99614	·99524	·99457	·99421	46
42	·99810	·99705	·99598	·99503	·99436	·99399	47
43	·99802	·99692	·99580	·99483	·99414	·99376	48
44	·99792	·99678	·99563	·99462	·99392	·99352	49
45	·99784	·99664	·99545	·99441	·99368	·99329	50
46	·99774	·99650	·99527	·99419	·99345	·99306	51
47	·99764	·99635	·99508	·99398	·99322	·99281	52
48	·99755	·99621	·99489	·99376	·99298	·99258	53
49	·99745	·99606	·99469	·99354	·99275	·99232	54
50	·99734	·99591	·99451	·99331	·99250	·99206	55
51	·99725	·99576	·99430	·99309	·99224	·99179	56
52	·99714	·99560	·99410	·99284	·99198	·99150	57
53	·99704	·99544	·99389	·99259	·99169	·99118	58
54	·99692	·99527	·99367	·99232	·99137	·99082	59
55	·99680	·99509	·99343	·99202	·99102	·99043	60
56	·99666	·99489	·99316	·99169	·99063	·98995	61
57	·99652	·99467	·99286	·99130	·99017	·98943	62
58	·99636	·99441	·99251	·99087	·98965	·98880	63
59	·99614	·99413	·99212	·99036	·98903	·98807	64

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log p_{[x]}$	$\log p_{[x]+1}$	$\log p_{[x]+2}$	$\log p_{[x]+3}$	$\log p_{[x]+4}$	$\log p_{x+5}$	$x+5$
60	$\bar{1}$·99592	$\bar{1}$·99377	$\bar{1}$·99167	$\bar{1}$·98977	$\bar{1}$·98831	$\bar{1}$·98722	65
61	·99564	·99337	·99113	·98908	·98747	·98623	66
62	·99530	·99291	·99048	·98829	·98649	·98511	67
63	·99492	·99235	·98974	·98735	·98538	·98379	68
64	·99445	·99170	·98889	·98627	·98409	·98231	69
65	·99391	·99094	·98790	·98504	·98262	·98065	70
66	·99326	·99008	·98676	·98364	·98097	·97876	71
67	·99253	·98908	·98547	·98206	·97911	·97669	72
68	·99169	·98794	·98402	·98028	·97706	·97437	73
69	·99074	·98667	·98238	·97830	·97478	·97181	74
70	·98967	·98523	·98057	·97611	·97225	·96900	75
71	·98847	·98364	·97855	·97370	·96947	·96590	76
72	·98714	·98187	·97634	·97103	·96641	·96256	77
73	·98567	·97991	·97390	·96811	·96310	·95895	78
74	·98403	·97779	·97122	·96492	·95945	·95481	79
75	·98226	·97543	·96828	·96143	·95547	·95040	80
76	·98030	·97287	·96508	·95762	·95110	·94561	81
77	·97816	·97006	·96159	·95344	·94636	·94034	82
78	·97581	·96702	·95776	·94889	·94116	·93465	83
79	·97327	·96366	·95358	·94394	·93552	·92836	84
80	·97047	·96001	·94905	·93851	·92933	·92156	85
81	·96744	·95602	·94410	·93258	·92260	·91410	86
82	·96411	·95168	·93863	·92613	·91525	·90598	87
83	·96050	·94694	·93270	·91909	·90722	·89710	88
84	·95654	·94176	·92625	·91140	·89846	·88742	89
85	·95224	·93608	·91920	·90301	·88889	·87685	90
86	·94752	·92991	·91150	·89385	·87845	·86532	91
87	·94238	·92317	·90310	·88385	·86706	·85273	92
88	·93677	·91582	·89393	·87293	·85463	·83898	93
89	·93065	·90779	·88392	·86102	·84105	·82399	94
90	·92397	·89903	·87299	·84802	·82624	·80762	95
91	·91667	·88947	·86107	·83382	·81008	·78976	96
92	·90871	·87903	·84805	·81834	·79244	·77025	97
93	·90000	·86764	·83385	·80144	·77317	·74897	98
94	·89053	·85521	·81834	·78299	·75215	·72575	99
95	·88017	·84164	·80143	·76285	·72921	·70039	100
96	·86888	·82683	·78295	·74088	·70417	·67272	101
97	·85654	·81066	·76280	·71689	·67684	·64252	102
98	·84308	·79302	·74080	·69071	·64701	·60956	103
99	·82838	·77377	·71679	·66213	·61446	...	104

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase 0	1	2	3	4	5 or more	Age Attained
$[x]$	$q_{[x]}$	$q_{[x]+1}$	$q_{[x]+2}$	$q_{[x]+3}$	$q_{[x]+4}$	q_{x+5}	$x+5$
20	·00271	·00372	·00482	·00585	·00652	·00682	25
21	·00271	·00375	·00485	·00588	·00661	·00691	26
22	·00274	·00377	·00487	·00595	·00670	·00702	27
23	·00274	·00379	·00492	·00601	·00682	·00716	28
24	·00274	·00381	·00498	·00613	·00693	·00732	29
25	·00276	·00384	·00508	·00624	·00707	·00750	30
26	·00276	·00391	·00517	·00638	·00725	·00768	31
27	·00278	·00398	·00528	·00654	·00743	·00794	32
28	·00283	·00402	·00542	·00672	·00768	·00814	33
29	·00283	·00414	·00558	·00693	·00789	·00841	34
30	·00287	·00425	·00574	·00714	·00816	·00871	35
31	·00294	·00437	·00595	·00736	·00846	·00899	36
32	·00301	·00453	·00613	·00764	·00873	·00935	37
33	·00310	·00466	·00636	·00791	·00908	·00969	38
34	·00320	·00482	·00661	·00823	·00942	·01008	39
35	·00329	·00503	·00686	·00857	·00978	·01044	40
36	·00340	·00524	·00716	·00889	·01017	·01090	41
37	·00352	·00547	·00746	·00926	·01060	·01131	42
38	·00368	·00567	·00780	·00965	·01101	·01179	43
39	·00384	·00595	·00810	·01008	·01147	·01224	44
40	·00402	·00620	·00846	·01047	·01195	·01274	45
41	·00418	·00647	·00885	·01090	·01243	·01324	46
42	·00437	·00677	·00921	·01138	·01290	·01374	47
43	·00455	·00707	·00962	·01183	·01340	·01427	48
44	·00478	·00739	·01001	·01231	·01390	·01481	49
45	·00496	·00771	·01042	·01279	·01445	·01533	50
46	·00519	·00803	·01083	·01329	·01497	·01585	51
47	·00542	·00837	·01126	·01377	·01549	·01642	52
48	·00563	·00869	·01170	·01427	·01603	·01694	53
49	·00585	·00903	·01215	·01476	·01656	·01753	54
50	·00611	·00937	·01256	·01529	·01712	·01812	55
51	·00631	·00972	·01304	·01578	·01771	·01873	56
52	·00656	·01008	·01349	·01635	·01830	·01938	57
53	·00679	·01044	·01397	·01692	·01895	·02010	58
54	·00707	·01083	·01447	·01753	·01968	·02092	59
55	·00734	·01124	·01501	·01821	·02046	·02179	60
56	·00766	·01170	·01563	·01895	·02134	·02288	61
57	·00798	·01220	·01631	·01983	·02238	·02404	62
58	·00835	·01279	·01710	·02080	·02355	·02546	63
59	·00885	·01343	·01798	·02195	·02494	·02710	64

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$q_{[x]}$	$q_{[x]+1}$	$q_{[x]+2}$	$q_{[x]+3}$	$q_{[x]+4}$	q_{x+5}	$x+5$
60	·00935	·01424	·01900	·02328	·02656	·02900	65
61	·00999	·01515	·02022	·02483	·02844	·03121	66
62	·01076	·01619	·02168	·02660	·03063	·03370	67
63	·01163	·01746	·02335	·02871	·03310	·03664	68
64	·01270	·01893	·02526	·03112	·03597	·03991	69
65	·01392	·02065	·02748	·03386	·03923	·04358	70
66	·01540	·02258	·03003	·03697	·04287	·04773	71
67	·01705	·02483	·03290	·04047	·04696	·05226	72
68	·01895	·02739	·03613	·04439	·05145	·05731	73
69	·02110	·03023	·03976	·04874	·05642	·06285	74
70	·02351	·03344	·04375	·05352	·06190	·06889	75
71	·02620	·03697	·04819	·05876	·06788	·07551	76
72	·02918	·04089	·05302	·06453	·07443	·08260	77
73	·03246	·04521	·05833	·07080	·08146	·09019	78
74	·03610	·04985	·06412	·07760	·08914	·09882	79
75	·04002	·05500	·07043	·08498	·09745	·10793	80
76	·04435	·06056	·07726	·09297	·10649	·11771	81
77	·04904	·06662	·08464	·10166	·11619	·12835	82
78	·05418	·07313	·09268	·11102	·12671	·13970	83
79	·05969	·08027	·10137	·12110	·13797	·15207	84
80	·06574	·08797	·11070	·13202	·15017	·16524	85
81	·07223	·09631	·12078	·14379	·16324	·17946	86
82	·07932	·10529	·13178	·15641	·17728	·19466	87
83	·08694	·11501	·14355	·16998	·19236	·21096	88
84	·09523	·12550	·15618	·18454	·20848	·22835	89
85	·10414	·13686	·16977	·20015	·22573	·24690	90
86	·11382	·14904	·18436	·21684	·24412	·26664	91
87	·12425	·16214	·19998	·23467	·26369	·28759	92
88	·13549	·17620	·21670	·25367	·28447	·30979	93
89	·14759	·19130	·23454	·27386	·30649	·33321	94
90	·16060	·20744	·25357	·29527	·32975	·35787	95
91	·17459	·22470	·27378	·31794	·35423	·38375	96
92	·18958	·24311	·29523	·34183	·37993	·41082	97
93	·20567	·26271	·31790	·36695	·40684	·43899	98
94	·22280	·28351	·34183	·39328	·43487	·46820	99
95	·24113	·30555	·36696	·42077	·46394	·49836	100
96	·26060	·32883	·39333	·44934	·49398	·52933	101
97	·28131	·35336	·42084	·47894	·52484	·56094	102
98	·30325	·37910	·44945	·50942	·55638	·59303	103
99	·32643	·40602	·47906	·54066	·58841	...	104

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log q_{[x]}$	$\log q_{[x]+1}$	$\log q_{[x]+2}$	$\log q_{[x]+3}$	$\log q_{[x]+4}$	$\log q_{x+5}$	$x+5$
20	$\bar{3}$·43297	$\bar{3}$·57054	$\bar{3}$·68305	$\bar{3}$·76716	$\bar{3}$·81425	$\bar{3}$·83378	25
21	·43297	·57403	·68574	·76938	·82020	·83948	26
22	·43775	·57634	·68753	·77452	·82607	·84634	27
23	·43775	·57864	·69197	·77887	·83378	·85491	28
24	·43775	·58093	·69723	·78746	·84073	·86451	29
25	·44091	·58433	·70586	·79518	·84942	·87506	30
26	·44091	·59218	·71349	·80482	·86034	·88536	31
27	·44404	·59988	·72263	·81558	·87099	·89982	32
28	·45179	·60423	·73400	·82737	·88536	·91062	33
29	·45179	·61700	·74663	·84073	·89708	·92480	34
30	·45788	·62839	·75891	·85370	·91169	·94002	35
31	·46835	·64048	·77452	·86688	·92737	·95376	36
32	·47857	·65610	·78746	·88309	·94101	·97081	37
33	·49136	·66839	·80346	·89818	·95809	·98632	38
34	·50515	·68305	·82020	·91540	·97405	$\bar{2}$·00346	39
35	·51720	·70157	·83632	·93298	·99034	·01870	40
36	·53148	·71933	·85491	·94890	$\bar{2}$·00732	·03743	41
37	·54654	·73799	·87274	·96661	·02531	·05346	42
38	·56585	·75358	·89209	·98453	·04179	·07151	43
39	·58433	·77452	·90849	$\bar{2}$·00346	·05956	·08778	44
40	·60423	·79239	·92737	·01995	·07737	·10517	45
41	·62118	·81090	·94694	·03743	·09447	·12189	46
42	·64048	·83059	·96426	·05614	·11059	·13799	47
43	·65801	·84942	·98318	·07298	·12710	·15442	48
44	·67943	·86864	$\bar{2}$·00043	·09026	·14301	·17056	49
45	·69548	·88705	·01787	·10687	·15987	·18554	50
46	·71517	·90472	·03463	·12353	·17522	·20003	51
47	·73400	·92273	·05154	·13893	·19005	·21537	52
48	·75051	·93902	·06819	·15442	·20493	·22891	53
49	·76716	·95569	·08458	·16909	·21906	·24378	54
50	·78604	·97174	·09899	·18441	·23350	·25816	55
51	·80003	·98767	·11528	·19811	·24822	·27254	56
52	·81690	$\bar{2}$·00346	·13001	·21352	·26245	·28735	57
53	·83187	·01870	·14520	·22840	·27761	·30320	58
54	·84942	·03463	·16047	·24378	·29403	·32056	59
55	·86570	·05077	·17638	·26031	·31091	·33826	60
56	·88423	·06819	·19396	·27761	·32919	·35946	61
57	·90200	·08636	·21245	·29732	·34986	·38093	62
58	·92169	·10687	·23300	·31806	·37199	·40586	63
59	·94694	·12808	·25479	·34143	·39690	·43297	64

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$\log q_{[x]}$	$\log q_{[x]+1}$	$\log q_{[x]+2}$	$\log q_{[x]+3}$	$\log q_{[x]+4}$	$\log q_{x+5}$	$x+5$
60	$\bar{3}$·97081	$\bar{2}$·15351	$\bar{2}$·27875	$\bar{2}$·36698	$\bar{2}$·42423	$\bar{2}$·46240	65
61	·99957	·18041	·30578	·39498	·45393	·49429	66
62	$\bar{2}$·03181	·20925	·33606	·42488	·48615	·52763	67
63	·06558	·24204	·36829	·45803	·51983	·56396	68
64	·10380	·27715	·40243	·49304	·55594	·60108	69
65	·14364	·31492	·43902	·52969	·59362	·63929	70
66	·18752	·35372	·47756	·56785	·63215	·67879	71
67	·23172	·39498	·51720	·60713	·67173	·71817	72
68	·27761	·43759	·55787	·64729	·71139	·75823	73
69	·32428	·48044	·59945	·68789	·75143	·79831	74
70	·37125	·52427	·64098	·72852	·79169	·83816	75
71	·41830	·56785	·68296	·76908	·83174	·87800	76
72	·46509	·61162	·72444	·80976	·87175	·91698	77
73	·51135	·65523	·76589	·85003	·91094	·95516	78
74	·55751	·69767	·80699	·88986	·95007	·99484	79
75	·60228	·74036	·84776	·92932	·98878	$\bar{1}$·03314	80
76	·64689	·78219	·88795	·96834	$\bar{1}$·02731	·07081	81
77	·69055	·82360	·92758	$\bar{1}$·00715	·06517	·10840	82
78	·73384	·86410	·96699	·04540	·10281	·14520	83
79	·77590	·90455	$\bar{1}$·00591	·08314	·13978	·18204	84
80	·81783	·94433	·04415	·12064	·17658	·21812	85
81	·85872	·98367	·08200	·15773	·21283	·25397	86
82	·89938	$\bar{1}$·02239	·11985	·19426	·24866	·28928	87
83	·93922	·06074	·15700	·23040	·28411	·32420	88
84	·97877	·09864	·19363	·26609	·31906	·35860	89
85	$\bar{1}$·01762	·13628	·22986	·30136	·35359	·39252	90
86	·05622	·17330	·26567	·33614	·38760	·42593	91
87	·09430	·20989	·30099	·37046	·42109	·45877	92
88	·13191	·24601	·33586	·40427	·45404	·49107	93
89	·16906	·28172	·37022	·43753	·48642	·52272	94
90	·20575	·31689	·40410	·47022	·51818	·55373	95
91	·24202	·35160	·43740	·50235	·54929	·58405	96
92	·27779	·38580	·47016	·53381	·57970	·61365	97
93	·31317	·41948	·50229	·56461	·60942	·64245	98
94	·34792	·45257	·53381	·59470	·63836	·67043	99
95	·38225	·48508	·56462	·62404	·66646	·69754	100
96	·41597	·51697	·59476	·65258	·69371	·72373	101
97	·44919	·54822	·62412	·68028	·72003	·74892	102
98	·48180	·57875	·65268	·70708	·74537	·77308	103
99	·51379	·60855	·68039	·73292	·76968	...	104

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$e_{[x]}$	$e_{[x]+1}$	$e_{[x]+2}$	$e_{[x]+3}$	$e_{[x]+4}$	e_{x+5}	$x+5$
20	43·978	43·097	42·258	41·463	40·707	39·974	25
21	43·263	42·380	41·539	40·742	39·983	39·249	26
22	42·543	41·660	40·818	40·018	39·257	38·521	27
23	41·824	40·938	40·094	39·292	38·529	37·795	28
24	41·101	40·213	39·368	38·565	37·803	37·066	29
25	40·378	39·488	38·641	37·838	37·076	36·340	30
26	39·652	38·762	37·914	37·111	36·350	35·615	31
27	38·926	38·035	37·187	36·384	35·624	34·891	32
28	38·200	37·309	36·459	35·658	34·900	34·170	33
29	37·476	36·582	35·734	34·934	34·178	33·450	34
30	36·751	35·858	35·010	34·212	33·458	32·733	35
31	36·028	35·134	34·289	33·493	32·742	32·021	36
32	35·307	34·414	33·571	32·777	32·029	31·312	37
33	34·589	33·696	32·854	32·065	31·321	30·607	38
34	33·873	32·981	32·142	31·355	30·615	29·907	39
35	33·161	32·270	31·434	30·651	29·916	29·211	40
36	32·453	31·563	30·729	29·951	29·219	28·519	41
37	31·748	30·860	30·029	29·255	28·528	27·834	42
38	31·047	30·161	29·334	28·564	27·843	27·153	43
39	30·350	29·467	28·644	27·877	27·161	26·476	44
40	29·659	28·779	27·958	27·197	26·484	25·804	45
41	28·972	28·094	27·277	26·521	25·813	25·138	46
42	28·290	27·414	26·602	25·849	25·147	24·475	47
43	27·613	26·740	25·930	25·182	24·483	23·816	48
44	26·940	26·070	25·264	24·519	23·825	23·161	49
45	26·272	25·404	24·601	23·860	23·169	22·509	50
46	25·609	24·742	23·943	23·205	22·517	21·859	51
47	24·948	24·084	23·287	22·553	21·868	21·211	52
48	24·292	23·429	22·635	21·903	21·220	20·566	53
49	23·637	22·777	21·985	21·255	20·574	19·920	54
50	22·986	22·127	21·337	20·608	19·928	19·275	55
51	22·337	21·479	20·690	19·963	19·283	18·631	56
52	21·689	20·832	20·044	19·318	18·639	17·987	57
53	21·041	20·185	19·398	18·673	17·995	17·342	58
54	20·393	19·539	18·753	18·028	17·350	16·698	59
55	19·746	18·893	18·107	17·383	16·706	16·055	60
56	19·098	18·246	17·461	16·739	16·062	15·412	61
57	18·450	17·599	16·816	16·095	15·420	14·773	62
58	17·802	16·952	16·171	15·452	14·781	14·137	63
59	17·153	16·306	15·528	14·812	14·145	13·506	64

FEMALES.

ELEMENTARY VALUES.

Age at Entry	Years Elapsed since Date of Purchase 0	1	2	3	4	5 or more	Age Attained
$[x]$	$e_{[x]}$	$e_{[x]+1}$	$e_{[x]+2}$	$e_{[x]+3}$	$e_{[x]+4}$	e_{x+5}	$x+5$
60	16·506	15·661	14·888	14·176	13·514	12·883	65
61	15·860	15·020	14·251	13·545	12·890	12·267	66
62	15·217	14·383	13·620	12·921	12·275	11·662	67
63	14·579	13·751	12·995	12·306	11·670	11·069	68
64	13·948	13·127	12·380	11·701	11·077	10·490	69
65	13·324	12·512	11·776	11·108	10·498	9·926	70
66	12·709	11·908	11·183	10·530	9·934	9·378	71
67	12·107	11·317	10·605	9·966	9·386	8·849	72
68	11·517	10·740	10·042	9·419	8·856	8·337	73
69	10·943	10·179	9·496	8·889	8·345	7·843	74
70	10·384	9·634	8·967	8·378	7·851	7·369	75
71	9·843	9·107	8·457	7·885	7·377	6·915	76
72	9·319	8·599	7·965	7·412	6·923	6·480	77
73	8·814	8·109	7·493	6·957	6·488	6·063	78
74	8·327	7·639	7·040	6·522	6·071	5·665	79
75	7·860	7·188	6·606	6·107	5·674	5·287	80
76	7·412	6·756	6·192	5·710	5·295	4·926	81
77	6·983	6·343	5·796	5·332	4·935	4·584	82
78	6·572	5·949	5·418	4·971	4·592	4·259	83
79	6·180	5·572	5·059	4·629	4·267	3·950	84
80	5·806	5·214	4·717	4·304	3·959	3·658	85
81	5·449	4·873	4·393	3·996	3·667	3·382	86
82	5·109	4·549	4·085	3·705	3·391	3·122	87
83	4·786	4·242	3·793	3·429	3·131	2·877	88
84	4·479	3·951	3·518	3·169	2·886	2·646	89
85	4·188	3·675	3·257	2·924	2·655	2·429	90
86	3·912	3·414	3·011	2·692	2·438	2·226	91
87	3·650	3·167	2·780	2·475	2·235	2·034	92
88	3·402	2·934	2·562	2·271	2·044	1·855	93
89	3·167	2·716	2·358	2·080	1·864	1·688	94
90	2·945	2·508	2·165	1·901	1·698	1·532	95
91	2·735	2·314	1·984	1·733	1·541	1·386	96
92	2·537	2·131	1·816	1·575	1·395	1·249	97
93	2·350	1·958	1·658	1·429	1·258	1·127	98
94	2·175	1·800	1·507	1·292	1·134	1·000	99
95	2·006	1·644	1·371	1·164	1·011	·898	100
96	1·854	1·509	1·238	1·045	·898	·760	101
97	1·703	1·365	1·123	·936	·760	·583	102
98	1·566	1·246	1·000	·792	·583	·400	103
99	1·415	1·083	·857	·636	·400	...	104

FEMALES.

$2\frac{1}{2}$ PER CENT. COMMUTATION TABLE. **$2\frac{1}{2}$ PER CENT.**

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
20	61027·	59377·	57713·	56034·	54348·	52676·	25
21	59143·	57543·	55929·	54301·	52665·	51041·	26
22	57314·	55764·	54199·	52619·	51031·	49453·	27
23	55537·	54036·	52517·	50985·	49442·	47907·	28
24	53813·	52356·	50885·	49397·	47896·	46404·	29
25	52136·	50725·	49298·	47851·	46393·	44941·	30
26	50508·	49141·	47754·	46349·	44929·	43516·	31
27	48925·	47598·	46253·	44886·	43505·	42129·	32
28	47384·	46098·	44792·	43463·	42118·	40775·	33
29	45884·	44638·	43369·	42076·	40764·	39457·	34
30	44423·	43216·	41983·	40723·	39447·	38170·	35
31	43002·	41830·	40631·	39405·	38160·	36915·	36
32	41617·	40479·	39313·	38119·	36905·	35691·	37
33	40265·	39162·	38028·	36865·	35681·	34495·	38
34	38948·	37877·	36775·	35641·	34485·	33327·	39
35	37663·	36624·	35551·	34445·	33317·	32187·	40
36	36409·	35401·	34356·	33278·	32178·	31073·	41
37	35185·	34206·	33189·	32139·	31064·	29985·	42
38	33990·	33039·	32051·	31025·	29976·	28923·	43
39	32824·	31901·	30937·	29938·	28913·	27885·	44
40	31685·	30787·	29850·	28876·	27877·	26872·	45
41	30571·	29701·	28789·	27838·	26863·	25882·	46
42	29484·	28639·	27752·	26826·	25873·	24917·	47
43	28422·	27603·	26740·	25836·	24908·	23975·	48
44	27387·	26591·	25751·	24871·	23966·	23056·	49
45	26375·	25604·	24787·	23930·	23048·	22161·	50
46	25388·	24640·	23846·	23012·	22153·	21289·	51
47	24425·	23700·	22929·	22118·	21281·	20440·	52
48	23486·	22784·	22035·	21246·	20432·	19615·	53
49	22571·	21892·	21165·	20398·	19607·	18812·	54
50	21681·	21023·	20318·	19574·	18804·	18031·	55
51	20813·	20178·	19494·	18771·	18024·	17273·	56
52	19971·	19356·	18693·	17991·	17265·	16536·	57
53	19150·	18556·	17915·	17233·	16529·	15820·	58
54	18354·	17780·	17158·	16498·	15813·	15124·	59
55	17580·	17025·	16423·	15782·	15117·	14446·	60
56	16829·	16293·	15709·	15087·	14440·	13787·	61
57	16099·	15581·	15015·	14410·	13780·	13143·	62
58	15389·	14888·	14340·	13751·	13136·	12514·	63
59	14700·	14214·	13681·	13108·	12507·	11898·	64

FEMALES.

$2\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $2\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
60	14028·	13558·	13039·	12479·	11891·	11293·	65
61	13373·	12917·	12411·	11863·	11287·	10698·	66
62	12734·	12290·	11796·	11259·	10692·	10112·	67
63	12108·	11676·	11192·	10664·	10105·	9532·6	68
64	11495·	11072·	10597·	10078·	9526·0	8959·2	69
65	10891·	10477·	10011·	9498·4	8952·8	8391·9	70
66	10297·	9890·8	9431·7	8925·2	8385·7	7830·5	71
67	9709·3	9311·1	8858·3	8358·0	7824·2	7274·8	72
68	9128·9	8737·4	8290·9	7796·5	7268·6	6726·5	73
69	8554·2	8169·6	7729·5	7241·0	6720·2	6186·3	74
70	7985·6	7607·8	7174·0	6692·8	6180·0	5656·1	75
71	7423·2	7052·3	6626·0	6152·8	5650·0	5138·1	76
72	6867·5	6504·6	6086·4	5623·2	5132·0	4634·1	77
73	6320·3	5966·0	5557·4	5105·6	4628·4	4147·7	78
74	5782·8	5438·1	5041·0	4602·7	4142·0	3680·7	79
75	5257·4	4923·9	4539·5	4116·9	3675·1	3236·1	80
76	4746·2	4425·1	4055·7	3651·1	3230·9	2816·4	81
77	4252·0	3944·8	3592·2	3208·0	2811·6	2424·3	82
78	3777·3	3485·5	3151·8	2790·0	2419·7	2061·6	83
79	3324·8	3050·1	2736·9	2399·4	2057·5	1730·3	84
80	2897·4	2640·9	2349·8	2038·8	1726·5	1431·4	85
81	2497·4	2260·4	1992·9	1709·5	1428·0	1165·8	86
82	2127·1	1910·6	1667·8	1412·7	1162·7	933·25	87
83	1788·1	1592·9	1375·3	1149·2	930·57	733·25	88
84	1481·9	1308·1	1116·0	918·80	730·97	564·43	89
85	1209·3	1056·8	889·96	720·84	562·55	424·97	90
86	970·11	838·75	696·37	554·10	423·34	312·17	91
87	763·94	652·77	533·56	416·41	310·91	223·39	92
88	589·70	497·35	399·72	305·41	222·36	155·26	93
89	445·15	370·14	292·09	218·13	154·55	104·55	94
90	328·10	268·61	207·71	151·23	103·96	67·997	95
91	235·53	189·66	143·48	101·60	67·613	42·606	96
92	164·29	129·90	95·907	65·986	42·326	25·615	97
93	111·08	86·091	61·867	41·205	25·433	14·674	98
94	72·544	54·972	38·496	24·704	14·585	8·0690	99
95	45·683	33·824	22·880	14·140	7·9823	4·1477	100
96	27·563	19·872	13·073	7·7220	4·1477	2·0646	101
97	15·953	11·205	7·0280	3·9784	2·0646	·9668	102
98	8·8044	5·9867	3·6398	1·9820	·9668	·3930	103
99	4·5985	3·0473	1·7342	·8863	·3930	·1534	104

FEMALES.

$2\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $2\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
20	1579785·	1518758·	1459381·	1401668·	1345634·	1291286·	25
21	1518191·	1459048·	1401505·	1345576·	1291275·	1238610·	26
22	1458496·	1401182·	1345418·	1291219·	1238600·	1187569·	27
23	1400633·	1345096·	1291060·	1238543·	1187558·	1138116·	28
24	1344556·	1290743·	1238387·	1187502·	1138105·	1090209·	29
25	1290208·	1238072·	1187347·	1138049·	1090198·	1043805·	30
26	1237545·	1187037·	1137896·	1090142·	1043793·	998864·	31
27	1186515·	1137590·	1089992·	1043739·	998853·	955348·	32
28	1137074·	1089690·	1043592·	998800·	955337·	913219·	33
29	1089175·	1043291·	998653·	955284·	913208·	872444·	34
30	1042779·	998356·	955140·	913157·	872434·	832987·	35
31	997845·	954843·	913013·	872382·	832977·	794817·	36
32	954335·	912718·	872239·	832926·	794807·	757902·	37
33	912212·	871947·	832785·	794757·	757892·	722211·	38
34	871442·	832494·	794617·	757842·	722201·	687716·	39
35	831989·	794326·	757702·	722151·	687706·	654389·	40
36	793824·	757415·	722014·	687658·	654380·	622202·	41
37	756912·	721727·	687521·	654332·	622193·	591129·	42
38	721225·	687235·	654196·	622145·	591120·	561144·	43
39	686734·	653910·	622009·	591072·	561134·	532221·	44
40	653411·	621726·	590939·	561089·	532213·	504336·	45
41	621226·	590655·	560954·	532165·	504327·	477464·	46
42	590156·	560672·	532033·	504281·	477455·	451582·	47
43	560174·	531752·	504145·	477409·	451573·	426665·	48
44	531256·	503869·	477278·	451527·	426656·	402690·	49
45	503378·	477003·	451399·	426612·	402682·	379634·	50
46	476512·	451124·	426484·	402638·	379626·	357473·	51
47	450637·	426212·	402512·	379583·	357465·	336184·	52
48	425727·	402241·	379457·	357422·	336176·	315744·	53
49	401762·	379191·	357299·	336134·	315736·	296129·	54
50	378717·	357036·	336013·	315695·	296121·	277317·	55
51	356566·	335753·	315575·	296081·	277310·	259286·	56
52	335289·	315318·	295962·	277269·	259278·	242013·	57
53	314860·	295710·	277154·	259239·	242006·	225477·	58
54	295260·	276906·	259126·	241968·	225470·	209657·	59
55	276460·	258880·	241855·	225432·	209650·	194533·	60
56	258445·	241616·	225323·	209614·	194527·	180087·	61
57	241185·	225086·	209505·	194490·	180080·	166300·	62
58	224661·	209272·	194384·	180044·	166293·	153157·	63
59	208853·	194153·	179939·	166258·	153150·	140643·	64

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

FEMALES.

$2\frac{1}{2}$ PER CENT. COMMUTATION TABLE. **$2\frac{1}{2}$ PER CENT.**

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
60	193740·	179712·	166154·	153115·	140636·	128745·	65
61	179303·	165930·	153013·	140602·	128739·	117452·	66
62	165525·	152791·	140501·	128705·	117446·	106754·	67
63	152387·	140279·	128603·	117411·	106747·	96642·	68
64	139877·8	128382·8	117310·8	106713·8	96635·8	87109·8	69
65	127980·8	117089·8	106612·8	96601·8	87103·4	78150·6	70
66	116689·1	106392·1	96501·3	87069·6	78144·4	69758·7	71
67	105989·1	96279·8	86968·7	78110·4	69752·4	61928·2	72
68	95875·7	86746·8	78009·4	69718·5	61922·0	54653·4	73
69	86341·4	77787·2	69617·6	61888·1	54647·1	47926·9	74
70	77380·8	69395·2	61787·4	54613·4	47920·6	41740·6	75
71	68988·8	61565·6	54513·3	47887·3	41734·5	36084·5	76
72	61160·1	54292·6	47788·0	41701·6	36078·4	30946·4	77
73	53890·0	47569·7	41603·7	36046·3	30940·7	26312·3	78
74	47171·2	41388·4	35950·3	30909·3	26306·6	22164·6	79
75	40996·7	35739·3	30815·4	26275·9	22159·0	18483·9	80
76	35356·8	30610·6	26185·5	22129·8	18478·7	15247·8	81
77	30240·0	25988·0	22043·2	18451·0	15243·0	12431·4	82
78	25631·4	21854·1	18368·6	15216·8	12426·8	10007·1	83
79	21514·2	18189·4	15139·3	12402·4	10003·0	7945·5	84
80	17868·6	14971·2	12330·3	9980·5	7941·7	6215·2	85
81	14672·0	12174·6	9914·2	7921·3	6211·8	4783·8	86
82	11898·9	9771·8	7861·2	6193·4	4780·7	3618·0	87
83	9520·78	7732·68	6139·78	4764·48	3615·28	2684·71	88
84	7507·23	6025·33	4717·23	3601·23	2682·43	1951·46	89
85	5826·48	4617·18	3560·38	2670·42	1949·58	1387·03	90
86	4444·73	3474·62	2635·87	1939·50	1385·40	962·06	91
87	3327·48	2563·54	1910·77	1377·21	960·80	649·89	92
88	2441·04	1851·34	1353·99	954·27	648·86	426·50	93
89	1751·30	1306·15	936·01	643·92	425·79	271·24	94
90	1226·30	898·20	629·59	421·88	270·65	166·687	95
91	836·573	601·043	411·383	267·903	166·303	98·690	96
92	554·493	390·203	260·303	164·396	98·410	56·084	97
93	356·145	245·065	158·974	97·107	55·902	30·469	98
94	221·096	148·552	93·580	55·084	30·380	15·7945	99
95	132·2348	86·5518	52·7278	29·8478	15·7078	7·7255	100
96	75·9555	48·3925	28·5205	15·4475	7·7255	3·5778	101
97	41·7422	25·7892	14·5842	7·5562	3·5778	1·5132	102
98	21·9261	13·1217	7·1350	3·4952	1·5132	·5464	103
99	10·8127	6·2142	3·1669	1·4327	·5464	·1534	104

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

FEMALES.

2½ PER CENT. — VALUE OF AN ANNUITY OF 1. — 2½ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase: 0	1	2	3	4	5 or more	Age Attained
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
20	24·887	24·578	24·288	24·014	23·760	23·514	25
21	24·669	24·356	24·059	23·780	23·519	23·268	26
22	24·448	24·127	23·823	23·539	23·272	23·014	27
23	24·220	23·894	23·583	23·293	23·019	22·757	28
24	23·985	23·653	23·337	23·040	22·762	22·494	29
25	23·748	23·407	23·084	22·783	22·499	22·226	30
26	23·501	23·156	22·828	22·521	22·232	21·954	31
27	23·252	22·900	22·565	22·253	21·959	21·677	32
28	22·997	22·639	22·299	21·981	21·683	21·397	33
29	22·738	22·372	22·027	21·704	21·402	21·112	34
30	22·474	22·102	21·751	21·423	21·117	20·823	35
31	22·204	21·827	21·471	21·139	20·829	20·531	36
32	21·932	21·548	21·187	20·851	20·536	20·235	37
33	21·655	21·266	20·900	20·559	20·240	19·937	38
34	21·374	20·979	20·608	20·263	19·943	19·635	39
35	21·091	20·689	20·313	19·965	19·641	19·331	40
36	20·803	20·395	20·016	19·664	19·336	19·023	41
37	20·512	20·100	19·715	19·359	19·029	18·714	42
38	20·219	19·801	19·412	19·053	18·719	18·401	43
39	19·922	19·498	19·106	18·743	18·407	18·086	44
40	19·622	19·194	18·797	18·431	18·092	17·768	45
41	19·321	18·886	18·485	18·116	17·774	17·447	46
42	19·016	18·577	18·171	17·799	17·453	17·124	47
43	18·709	18·264	17·854	17·478	17·130	16·797	48
44	18·398	17·949	17·535	17·155	16·803	16·465	49
45	18·085	17·630	17·211	16·828	16·471	16·131	50
46	17·769	17·309	16·885	16·497	16·137	15·791	51
47	17·449	16·984	16·555	16·162	15·797	15·447	52
48	17·127	16·655	16·220	15·823	15·453	15·097	53
49	16·800	16·321	15·881	15·479	15·103	14·742	54
50	16·468	15·983	15·538	15·129	14·748	14·380	55
51	16·132	15·640	15·188	14·774	14·386	14·011	56
52	15·789	15·290	14·833	14·412	14·017	13·636	57
53	15·442	14·936	14·471	14·043	13·642	13·253	58
54	15·087	14·574	14·102	13·667	13·259	12·863	59
55	14·726	14·206	13·726	13·284	12·869	12·466	60
56	14·358	13·830	13·343	12·894	12·472	12·062	61
57	13·982	13·447	12·953	12·497	12·068	11·654	62
58	13·598	13·056	12·555	12·093	11·660	11·239	63
59	13·208	12·659	12·152	11·684	11·245	10·821	64

FEMALES.

$2\frac{1}{2}$ PER CENT. VALUE OF AN ANNUITY OF 1. $2\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
60	12·811	12·255	11·743	11·270	10·827	10·400	65
61	12·407	11·846	11·329	10·852	10·406	9·978	66
62	11·998	11·432	10·911	10·432	9·984	9·558	67
63	11·585	11·014	10·491	10·010	9·564	9·138	68
64	11·169	10·595	10·070	9·589	9·145	8·723	69
65	10·751	10·175	9·650	9·170	8·729	8·313	70
66	10·333	9·757	9·232	8·756	8·319	7·909	71
67	9·916	9·340	8·818	8·346	7·915	7·513	72
68	9·502	8·928	8·409	7·942	7·519	7·125	73
69	9·094	8·522	8·007	7·547	7·132	6·747	74
70	8·690	8·122	7·613	7·160	6·754	6·380	75
71	8·294	7·730	7·227	6·783	6·387	6·023	76
72	7·906	7·347	6·852	6·416	6·030	5·678	77
73	7·526	6·974	6·486	6·060	5·685	5·344	78
74	7·157	6·611	6·132	5·716	5·351	5·022	79
75	6·798	6·258	5·788	5·383	5·030	4·712	80
76	6·450	5·918	5·456	5·061	4·719	4·414	81
77	6·112	5·588	5·136	4·752	4·421	4·128	82
78	5·786	5·270	4·828	4·454	4·136	3·854	83
79	5·471	4·963	4·531	4·169	3·862	3·592	84
80	5·167	4·669	4·247	3·895	3·600	3·342	85
81	4·875	4·386	3·975	3·634	3·350	3·104	86
82	4·594	4·114	3·714	3·384	3·112	2·877	87
83	4·324	3·855	3·464	3·146	2·885	2·662	88
84	4·066	3·606	3·227	2·919	2·670	2·457	89
85	3·818	3·369	3·001	2·705	2·466	2·264	90
86	3·582	3·143	2·785	2·500	2·273	2·082	91
87	3·356	2·927	2·581	2·307	2·090	1·909	92
88	3·139	2·723	2·387	2·125	1·918	1·747	93
89	2·934	2·529	2·205	1·952	1·755	1·594	94
90	2·738	2·344	2·031	1·790	1·603	1·451	95
91	2·552	2·169	1·867	1·637	1·460	1·316	96
92	2·375	2·004	1·714	1·491	1·325	1·190	97
93	2·206	1·847	1·570	1·357	1·198	1·076	98
94	2·048	1·702	1·431	1·230	1·083	·957	99
95	1·895	1·559	1·305	1·111	·968	·863	100
96	1·756	1·435	1·182	1·001	·863	·733	101
97	1·617	1·302	1·075	·899	·733	·565	102
98	1·490	1·192	·960	·763	·565	·390	103
99	1·351	1·039	·826	·617	·390	...	104

FEMALES.

3 PER CENT. COMMUTATION TABLE. 3 PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
20	55368·	53609·	51854·	50100·	48357·	46642·	25
21	53397·	51701·	50007·	48316·	46633·	44975·	26
22	51496·	49859·	48225·	46592·	44966·	43363·	27
23	49656·	48080·	46502·	44925·	43354·	41805·	28
24	47882·	46360·	44837·	43314·	41796·	40297·	29
25	46165·	44696·	43227·	41756·	40287·	38836·	30
26	44505·	43089·	41672·	40249·	38827·	37423·	31
27	42900·	41536·	40165·	38789·	37414·	36054·	32
28	41349·	40030·	38708·	37377·	36045·	34726·	33
29	39845·	38574·	37297·	36008·	34717·	33440·	34
30	38389·	37165·	35929·	34682·	33431·	32193·	35
31	36981·	35798·	34604·	33396·	32185·	30983·	36
32	35616·	34474·	33318·	32150·	30975·	29810·	37
33	34292·	33189·	32073·	30941·	29802·	28671·	38
34	33009·	31946·	30865·	29768·	28664·	27566·	39
35	31765·	30738·	29693·	28631·	27558·	26494·	40
36	30558·	29567·	28556·	27526·	26486·	25453·	41
37	29387·	28432·	27452·	26454·	25445·	24443·	42
38	28252·	27328·	26382·	25413·	24435·	23462·	43
39	27150·	26258·	25341·	24405·	23455·	22510·	44
40	26080·	25219·	24333·	23424·	22504·	21587·	45
41	25041·	24211·	23353·	22472·	21580·	20691·	46
42	24034·	23232·	22403·	21550·	20684·	19823·	47
43	23056·	22283·	21481·	20655·	19816·	18981·	48
44	22108·	21361·	20586·	19787·	18974·	18165·	49
45	21188·	20469·	19719·	18945·	18159·	17375·	50
46	20296·	19602·	18879·	18131·	17368·	16610·	51
47	19432·	18763·	18065·	17341·	16604·	15870·	52
48	18593·	17951·	17276·	16577·	15864·	15155·	53
49	17783·	17164·	16514·	15838·	15150·	14465·	54
50	16998·	16403·	15775·	15124·	14459·	13797·	55
51	16239·	15666·	15063·	14433·	13791·	13153·	56
52	15506·	14955·	14373·	13766·	13147·	12531·	57
53	14797·	14268·	13708·	13123·	12525·	11930·	58
54	14113·	13605·	13066·	12501·	11925·	11349·	59
55	13452·	12964·	12445·	11901·	11344·	10788·	60
56	12815·	12346·	11846·	11321·	10784·	10246·	61
57	12199·	11749·	11268·	10761·	10241·	9719·9	62
58	11605·	11173·	10709·	10219·	9714·9	9209·8	63
59	11031·	10615·	10168·	9693·9	9204·9	8714·0	64

FEMALES.

3 PER CENT. COMMUTATION TABLE. 3 PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
60	10476·	10076·	9643·0	9184·2	8709·2	8231·0	65
61	9938·7	9552·8	9134·0	8688·8	8226·2	7759·4	66
62	9417·6	9044·8	8639·3	8205·8	7754·8	7298·4	67
63	8911·3	8551·3	8157·2	7734·6	7293·9	6847·0	68
64	8418·6	8069·6	7686·2	7273·9	6842·3	6404·0	69
65	7937·8	7599·2	7225·7	6822·4	6399·4	5969·3	70
66	7468·1	7139·0	6774·5	6379·7	5964·9	5542·9	71
67	7008·1	6687·9	6331·8	5945·1	5538·5	5124·6	72
68	6557·1	6245·4	5897·4	5518·9	5120·2	4715·3	73
69	6114·5	5811·1	5471·4	5100·8	4710·9	4315·7	74
70	5680·3	5385·3	5053·6	4691·7	4311·3	3926·6	75
71	5254·6	4967·9	4644·8	4292·3	3922·4	3549·6	76
72	4837·7	4559·7	4246·0	3903·7	3545·4	3186·0	77
73	4430·6	4162·0	3858·1	3527·2	3182·0	2837·7	78
74	4034·2	3775·3	3482·6	3164·3	2833·8	2506·0	79
75	3649·8	3401·7	3120·9	2816·6	2502·2	2192·6	80
76	3278·9	3042·2	2774·8	2485·8	2189·0	1898·9	81
77	2923·2	2698·9	2445·7	2173·5	1895·7	1626·6	82
78	2584·3	2373·1	2135·5	1881·1	1623·6	1376·5	83
79	2263·7	2066·6	1845·3	1610·0	1373·8	1149·7	84
80	1963·1	1780·6	1576·7	1361·3	1147·2	946·52	85
81	1683·8	1516·7	1330·7	1135·9	944·26	767·13	86
82	1427·3	1275·8	1108·2	934·14	765·09	611·14	87
83	1194·0	1058·4	909·41	756·19	609·38	477·83	88
84	984·67	864·97	734·40	601·67	476·34	366·03	89
85	799·63	695·44	582·79	469·74	364·81	274·26	90
86	638·37	549·25	453·80	359·34	273·21	200·48	91
87	500·26	425·38	346·01	268·73	199·67	142·77	92
88	384·28	322·53	257·96	196·14	142·11	98·744	93
89	288·68	238·87	187·58	139·41	98·295	66·168	94
90	211·74	172·51	132·75	96·183	65·796	42·827	95
91	151·26	121·22	91·256	64·304	42·585	26·705	96
92	105·00	82·617	60·700	41·560	26·530	15·977	97
93	70·650	54·488	38·966	25·827	15·863	9·1081	98
94	45·913	34·623	24·128	15·408	9·0529	4·9841	99
95	28·773	21·200	14·271	8·7771	4·9306	2·5496	100
96	17·276	12·395	8·1147	4·7698	2·5496	1·2629	101
97	9·9502	6·9554	4·3411	2·4456	1·2629	·5886	102
98	5·4650	3·6979	2·2374	1·2124	·5886	·2381	103
99	2·8405	1·8732	1·0609	·5395	·2381	·0925	104

FEMALES.

3 PER CENT. COMMUTATION TABLE. 3 PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
20	1309107·	1253739·	1200130·	1148276·	1098176·	1049819·	25
21	1253231·	1199834·	1148133·	1098126·	1049810·	1003177·	26
22	1199340·	1147844·	1097985·	1049760·	1003168·	958202·	27
23	1147356·	1097700·	1049620·	1003118·	958193·	914839·	28
24	1097223·	1049341·	1002981·	958144·	914830·	873034·	29
25	1048868·	1002703·	958007·	914780·	873024·	832737·	30
26	1002243·	957738·	914649·	872977·	832728·	793901·	31
27	957282·	914382·	872846·	832681·	793892·	756478·	32
28	913933·	872584·	832554·	793846·	756469·	720424·	33
29	872139·	832294·	793720·	756423·	720415·	685698·	34
30	831854·	793465·	756300·	720371·	685689·	652258·	35
31	793029·	756048·	720250·	685646·	652250·	620065·	36
32	755615·	719999·	685525·	652207·	620057·	589082·	37
33	719569·	685277·	652088·	620015·	589074·	559272·	38
34	684853·	651844·	619898·	589033·	559265·	530601·	39
35	651420·	619655·	588917·	559224·	530593·	503035·	40
36	619234·	588676·	559109·	530553·	503027·	476541·	41
37	588258·	558871·	530439·	502987·	476533·	451088·	42
38	558455·	530203·	502875·	476493·	451080·	426645·	43
39	529792·	502642·	476384·	451043·	426638·	403183·	44
40	502233·	476153·	450934·	426601·	403177·	380673·	45
41	475743·	450702·	426491·	403138·	380666·	359086·	46
42	450298·	426264·	403032·	380629·	359079·	338395·	47
43	425863·	402807·	380524·	359043·	338388·	318572·	48
44	402407·	380299·	358938·	338352·	318565·	299591·	49
45	379906·	358718·	338249·	318530·	299585·	281426·	50
46	358327·	338031·	318429·	299550·	281419·	264051·	51
47	337646·	318214·	299451·	281386·	264045·	247441·	52
48	317832·	299239·	281288·	264012·	247435·	231571·	53
49	298865·	281082·	263918·	247404·	231566·	216416·	54
50	280710·	263712·	247309·	231534·	216410·	201951·	55
51	263346·	247107·	231441·	216378·	201945·	188154·	56
52	246748·	231242·	216287·	201914·	188148·	175001·	57
53	230891·	216094·	201826·	188118·	174995·	162470·	58
54	215750·	201637·	188032·	174966·	162465·	150540·	59
55	201297·	187845·	174881·	162436·	150535·	139191·	60
56	187515·	174700·	162354·	150508·	139187·	128403·	61
57	174375·	162176·	150427·	139159·	128398·	118157·	62
58	161857·9	150252·9	139079·9	128370·9	118151·9	108437·	63
59	149940·0	138909·0	128294·0	118126·0	108432·1	99227·2	64

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

FEMALES.

3 PER CENT. COMMUTATION TABLE. **3 PER CENT.**

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
60	138601·6	128125·6	118049·6	108406·6	99222·4	90513·2	65
61	127822·7	117884·0	108331·2	99197·2	90508·4	82282·2	66
62	117585·1	108167·5	99122·7	90483·4	82277·6	74522·8	67
63	107872·7	98961·4	90410·1	82252·9	74518·3	67224·4	68
64	98668·0	90249·4	82179·8	74493·6	67219·7	60377·4	69
65	89957·9	82020·1	74420·9	67195·2	60372·8	53973·4	70
66	81730·3	74262·2	67123·2	60348·7	53969·0	48004·1	71
67	73972·6	66964·5	60276·6	53944·8	47999·7	42461·2	72
68	66675·6	60118·5	53873·1	47975·7	42456·8	37336·6	73
69	59830·0	53715·5	47904·4	42433·0	37332·2	32621·3	74
70	53427·8	47747·5	42362·2	37308·6	32616·9	28305·6	75
71	47461·0	42206·4	37238·5	32593·7	28301·4	24379·0	76
72	41921·9	37084·2	32524·5	28278·5	24374·8	20829·4	77
73	36803·3	32372·7	28210·7	24352·6	20825·4	17643·4	78
74	32095·9	28061·7	24286·4	20803·8	17639·5	14805·7	79
75	27790·9	24141·1	20739·4	17618·5	14801·9	12299·7	80
76	23877·8	20598·9	17556·7	14781·9	12296·1	10107·1	81
77	20345·2	17422·0	14723·1	12277·4	10103·9	8208·2	82
78	17179·2	14594·9	12221·8	10086·3	8205·2	6581·6	83
79	14364·5	12100·8	10034·2	8188·9	6578·9	5205·1	84
80	11884·3	9921·2	8140·6	6563·9	5202·6	4055·4	85
81	9720·24	8036·44	6519·74	5189·04	4053·14	3108·88	86
82	7852·28	6424·98	5149·18	4040·98	3106·84	2341·75	87
83	6257·99	5063·99	4005·59	3096·18	2339·99	1730·61	88
84	4914·83	3930·16	3065·19	2330·79	1729·12	1252·78	89
85	3799·16	2999·53	2304·09	1721·30	1251·56	886·75	90
86	2886·46	2248·09	1698·84	1245·04	885·70	612·49	91
87	2152·06	1651·80	1226·42	880·41	611·68	412·01	92
88	1572·26	1187·98	865·45	607·49	411·35	269·245	93
89	1123·336	834·656	595·786	408·206	268·796	170·501	94
90	783·312	571·572	399·062	266·312	170·129	104·333	95
91	532·131	380·871	259·651	168·395	104·091	61·506	96
92	351·208	246·208	163·591	102·891	61·331	34·801	97
93	224·618	153·968	99·480	60·514	34·687	18·8238	98
94	138·8406	92·9276	58·3046	34·1766	18·7686	9·7157	99
95	82·6833	53·9103	32·7103	18·4393	9·6622	4·7316	100
96	47·2871	30·0111	17·6161	9·5014	4·7316	2·1820	101
97	25·8743	15·9241	8·9687	4·6276	2·1820	·9191	102
98	13·5318	8·0668	4·3689	2·1315	·9191	·3306	103
99	6·6447	3·8042	1·9310	·8701	·3306	·0925	104

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

FEMALES.

3 PER CENT. VALUE OF AN ANNUITY OF 1. 3 PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
20	22·643	22·386	22·145	21·920	21·710	21·508	25
21	22·469	22·206	21·959	21·728	21·513	21·305	26
22	22·289	22·022	21·769	21·532	21·310	21·097	27
23	22·106	21·830	21·571	21·328	21·102	20·883	28
24	21·914	21·635	21·369	21·121	20·888	20·665	29
25	21·720	21·434	21·162	20·907	20·670	20·442	30
26	21·520	21·227	20·949	20·690	20·447	20·214	31
27	21·314	21·015	20·731	20·467	20·219	19·982	32
28	21·103	20·798	20·509	20·239	19·987	19·746	33
29	20·888	20·576	20·281	20·007	19·751	19·506	34
30	20·669	20·350	20·050	19·771	19·511	19·261	35
31	20·444	20·120	19·814	19·531	19·266	19·013	36
32	20·216	19·886	19·575	19·286	19·018	18·761	37
33	19·984	19·648	19·332	19·039	18·766	18·506	38
34	19·747	19·405	19·084	18·788	18·511	18·248	39
35	19·507	19·159	18·833	18·532	18·254	17·987	40
36	19·264	18·910	18·579	18·275	17·992	17·722	41
37	19·017	18·657	18·322	18·014	17·728	17·455	42
38	18·767	18·401	18·061	17·750	17·460	17·184	43
39	18·514	18·142	17·799	17·482	17·190	16·911	44
40	18·257	17·881	17·532	17·212	16·916	16·635	45
41	17·998	17·616	17·263	16·939	16·640	16·354	46
42	17·735	17·348	16·990	16·663	16·360	16·071	47
43	17·471	17·077	16·714	16·383	16·076	15·784	48
44	17·202	16·803	16·436	16·100	15·790	15·493	49
45	16·931	16·525	16·153	15·814	15·499	15·197	50
46	16·655	16·244	15·867	15·522	15·203	14·897	51
47	16·376	15·959	15·577	15·227	14·903	14·591	52
48	16·094	15·670	15·282	14·927	14·597	14·280	53
49	15·806	15·376	14·982	14·621	14·286	13·961	54
50	15·514	15·078	14·677	14·309	13·967	13·637	55
51	15·217	14·773	14·365	13·992	13·642	13·305	56
52	14·913	14·462	14·048	13·667	13·311	12·966	57
53	14·604	14·146	13·724	13·336	12·971	12·619	58
54	14·288	13·821	13·392	12·996	12·624	12·264	59
55	13·965	13·489	13·052	12·649	12·270	11·902	60
56	13·633	13·150	12·705	12·294	11·907	11·532	61
57	13·294	12·803	12·350	11·932	11·538	11·157	62
58	12·947	12·448	11·987	11·562	11·162	10·774	63
59	12·592	12·085	11·618	11·185	10·780	10·387	64

FEMALES.

3 PER CENT. VALUE OF AN ANNUITY OF 1. 3 PER CENT.

Age at Entry	Years Elapsed since Date of Purchase: 0	1	2	3	4	5 or more	Age Attained
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
60	12·231	11·716	11·242	10·804	10·393	9·997	65
61	11·861	11·340	10·860	10·417	10·002	9·604	66
62	11·486	10·959	10·473	10·027	9·610	9·211	67
63	11·105	10·573	10·083	9·634	9·216	8·818	68
64	10·720	10·184	9·692	9·241	8·824	8·428	69
65	10·333	9·793	9·300	8·849	8·434	8·042	70
66	9·944	9·402	8·908	8·459	8·048	7·660	71
67	9·555	9·013	8·520	8·074	7·667	7·286	72
68	9·169	8·626	8·135	7·693	7·292	6·918	73
69	8·785	8·244	7·755	7·319	6·925	6·559	74
70	8·406	7·866	7·383	6·952	6·566	6·209	75
71	8·032	7·496	7·017	6·593	6·215	5·868	76
72	7·666	7·133	6·660	6·244	5·875	5·538	77
73	7·307	6·778	6·312	5·904	5·545	5·218	78
74	6·956	6·433	5·974	5·575	5·225	4·908	79
75	6·614	6·097	5·646	5·255	4·916	4·610	80
76	6·282	5·771	5·327	4·946	4·617	4·323	81
77	5·960	5·455	5·020	4·649	4·330	4·046	82
78	5·648	5·150	4·723	4·362	4·054	3·781	83
79	5·346	4·855	4·438	4·086	3·789	3·527	84
80	5·054	4·572	4·163	3·822	3·535	3·285	85
81	4·773	4·299	3·899	3·568	3·293	3·053	86
82	4·502	4·036	3·647	3·326	3·061	2·832	87
83	4·241	3·785	3·405	3·095	2·840	2·622	88
84	3·991	3·544	3·174	2·874	2·630	2·423	89
85	3·751	3·313	2·954	2·665	2·431	2·233	90
86	3·522	3·093	2·744	2·465	2·242	2·055	91
87	3·302	2·883	2·545	2·276	2·064	1·886	92
88	3·092	2·683	2·355	2·097	1·895	1·727	93
89	2·891	2·494	2·176	1·928	1·735	1·577	94
90	2·699	2·313	2·006	1·769	1·586	1·436	95
91	2·518	2·142	1·845	1·619	1·444	1·303	96
92	2·345	1·980	1·695	1·476	1·312	1·178	97
93	2·179	1·826	1·553	1·343	1·187	1·067	98
94	2·024	1·684	1·416	1·218	1·073	·949	99
95	1·874	1·543	1·292	1·101	·960	·856	100
96	1·737	1·421	1·171	·992	·856	·728	101
97	1·600	1·290	1·066	·892	·728	·562	102
98	1·476	1·181	·953	·758	·562	·388	103
99	1·339	1·031	·820	·613	·388	...	104

FEMALES.

$3\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
20	50256·	48425·	46613·	44820·	43051·	41324·	25
21	48234·	46476·	44736·	43014·	41315·	39654·	26
22	46291·	44604·	42933·	41279·	39646·	38049·	27
23	44422·	42804·	41199·	39610·	38041·	36504·	28
24	42628·	41073·	39533·	38006·	36496·	35017·	29
25	40901·	39409·	37930·	36461·	35008·	33585·	30
26	39240·	37809·	36387·	34975·	33577·	32206·	31
27	37643·	36269·	34903·	33544·	32198·	30878·	32
28	36105·	34786·	33474·	32167·	30870·	29597·	33
29	34624·	33359·	32097·	30839·	29590·	28364·	34
30	33199·	31984·	30771·	29560·	28356·	27174·	35
31	31826·	30659·	29493·	28326·	27167·	26026·	36
32	30503·	29383·	28261·	27138·	26020·	24920·	37
33	29227·	28151·	27073·	25991·	24913·	23852·	38
34	27998·	26965·	25927·	24885·	23846·	22822·	39
35	26813·	25821·	24822·	23818·	22816·	21828·	40
36	25670·	24717·	23756·	22789·	21822·	20870·	41
37	24567·	23653·	22728·	21796·	20864·	19944·	42
38	23503·	22625·	21736·	20837·	19938·	19052·	43
39	22478·	21634·	20778·	19913·	19046·	18190·	44
40	21488·	20678·	19855·	19021·	18185·	17360·	45
41	20532·	19755·	18964·	18160·	17354·	16559·	46
42	19611·	18865·	18103·	17330·	16554·	15787·	47
43	18722·	18007·	17275·	16530·	15782·	15044·	48
44	17865·	17179·	16475·	15759·	15038·	14328·	49
45	17039·	16381·	15705·	15016·	14323·	13638·	50
46	16243·	15612·	14963·	14300·	13633·	12975·	51
47	15476·	14872·	14249·	13612·	12970·	12338·	52
48	14737·	14159·	13561·	12949·	12333·	11725·	53
49	14027·	13473·	12900·	12312·	11720·	11136·	54
50	13343·	12813·	12264·	11700·	11132·	10571·	55
51	12685·	12179·	11653·	11112·	10567·	10029·	56
52	12054·	11570·	11066·	10548·	10024·	9508·0	57
53	11447·	10985·	10503·	10006·	9503·9	9008·4	58
54	10865·	10424·	9962·1	9485·9	9004·5	8528·8	59
55	10306·	9884·8	9443·2	8986·9	8524·9	8068·1	60
56	9770·8	9368·1	8945·4	8507·9	8064·4	7625·4	61
57	9256·6	8872·2	8467·6	8047·9	7621·5	7199·0	62
58	8763·1	8396·1	8008·5	7605·4	7195·3	6788·3	63
59	8289·7	7938·5	7567·1	7179·8	6784·7	6391·8	64

FEMALES.

$3\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase 0	1	2	3	4	5 or more	Age Attained
$[x]$	$D_{[x]}$	$D_{[x]+1}$	$D_{[x]+2}$	$D_{[x]+3}$	$D_{[x]+4}$	D_{x+5}	$x+5$
60	7834·5	7498·8	7142·0	6769·4	6388·2	6008·3	65
61	7396·7	7075·2	6732·4	6373·2	6004·8	5636·8	66
62	6975·1	6666·7	6336·9	5989·9	5633·4	5276·2	67
63	6568·3	6272·3	5954·4	5618·8	5272·9	4926·0	68
64	6175·0	5890·5	5583·5	5258·5	4922·5	4585·0	69
65	5794·3	5520·4	5223·6	4908·3	4581·7	4253·1	70
66	5425·1	5161·0	4873·8	4567·6	4250·0	3930·2	71
67	5066·3	4811·5	4533·4	4235·9	3927·1	3616·0	72
68	4717·4	4471·5	4201·9	3913·2	3612·9	3311·2	73
69	4377·7	4140·5	3879·5	3599·2	3308·0	3015·9	74
70	4047·3	3818·5	3565·9	3294·6	3012·8	2730·7	75
71	3725·8	3505·4	3261·7	2999·5	2727·8	2456·6	76
72	3413·6	3201·9	2967·2	2714·8	2453·7	2194·3	77
73	3111·2	2908·4	2683·1	2441·1	2191·6	1945·0	78
74	2819·2	2625·5	2410·2	2179·4	1942·3	1709·3	79
75	2538·2	2354·2	2149·5	1930·5	1706·8	1488·3	80
76	2269·3	2095·3	1901·9	1695·6	1485·9	1282·8	81
77	2013·4	1849·9	1668·2	1475·4	1280·6	1093·5	82
78	1771·3	1618·7	1449·6	1270·8	1091·5	920·94	83
79	1544·1	1402·8	1246·6	1082·3	919·09	765·49	84
80	1332·6	1202·9	1060·0	910·75	763·78	627·13	85
81	1137·5	1019·6	890·27	756·28	625·63	505·82	86
82	959·49	853·51	737·82	618·93	504·48	401·02	87
83	798·79	704·68	602·55	498·61	399·87	312·03	88
84	655·59	573·10	484·24	394·81	311·06	237·87	89
85	529·81	458·55	382·42	306·75	237·08	177·37	90
86	420·92	360·41	296·34	233·52	176·69	129·03	91
87	328·27	277·79	224·86	173·80	128·51	91·443	92
88	250·95	209·60	166·83	126·24	91·021	62·939	93
89	187·60	154·49	120·73	89·289	62·653	41·972	94
90	136·94	111·03	85·026	61·307	41·736	27·035	95
91	97·353	77·637	58·166	40·790	26·883	16·776	96
92	67·253	52·660	38·503	26·236	16·666	9·9885	97
93	45·032	34·563	24·598	16·224	9·9172	5·6667	98
94	29·124	21·856	15·158	9·6330	5·6324	3·0860	99
95	18·163	13·318	8·9220	5·4607	3·0528	1·5710	100
96	10·853	7·7491	5·0486	2·9532	1·5710	·7744	101
97	6·2206	4·3273	2·6878	1·5069	·7744	·3591	102
98	3·4001	2·2896	1·3786	·7434	·3591	·1446	103
99	1·7587	1·1542	·6505	·3292	·1446	·0559	104

FEMALES.

$3\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
20	1091427·	1041171·	992746·	946133·	901313·	858262·	25
21	1040713·	992479·	946003·	901267·	858253·	816938·	26
22	992037·	945746·	901142·	858209·	816930·	777284·	27
23	945311·	900889·	858085·	816886·	777276·	739235·	28
24	900467·	857839·	816766·	777233·	739227·	702731·	29
25	857423·	816522·	777113·	739183·	702722·	667714·	30
26	816117·	776877·	739068·	702681·	667706·	634129·	31
27	776480·	738837·	702568·	667665·	634121·	601923·	32
28	738447·	702342·	667556·	634082·	601915·	571045·	33
29	701957·	667333·	633974·	601877·	571038·	541448·	34
30	666954·	633755·	601771·	571000·	541440·	513084·	35
31	633381·	601555·	570896·	541403·	513077·	485910·	36
32	601189·	570686·	541303·	513042·	485904·	459884·	37
33	570319·	541092·	512941·	485868·	459877·	434964·	38
34	540733·	512735·	485770·	459843·	434958·	411112·	39
35	512380·	485567·	459746·	434924·	411106·	388290·	40
36	485216·	459546·	434829·	411073·	388284·	366462·	41
37	459200·	434633·	410980·	388252·	366456·	345592·	42
38	434287·	410784·	388159·	366423·	345586·	325648·	43
39	410445·	387967·	366333·	345555·	325642·	306596·	44
40	387633·	366145·	345467·	325612·	306591·	288406·	45
41	365811·	345279·	325524·	306560·	288400·	271046·	46
42	344950·	325339·	306474·	288371·	271041·	254487·	47
43	325016·	306294·	288287·	271012·	254482·	238700·	48
44	305972·	288107·	270928·	254453·	238694·	223656·	49
45	287792·	270753·	254372·	238667·	223651·	209328·	50
46	270441·	254198·	238586·	223623·	209323·	195690·	51
47	253894·	238418·	223546·	209297·	195685·	182715·	52
48	238116·	223379·	209220·	195659·	182710·	170377·	53
49	223084·	209057·	195584·	182684·	170372·	158652·	54
50	208768·	195425·	182612·	170348·	158648·	147516·	55
51	195141·	182456·	170277·	158624·	147512·	136945·	56
52	182178·	170124·	158554·	147488·	136940·	126916·	57
53	169852·4	158405·4	147420·4	136917·4	126911·4	117407·5	58
54	158140·6	147275·6	136851·6	126889·5	117403·6	108399·1	59
55	147016·1	136710·1	126825·3	117382·1	108395·2	99870·3	60
56	136458·8	126688·0	117319·9	108374·5	99866·6	91802·2	61
57	126442·6	117186·0	108313·8	99846·2	91798·3	84176·8	62
58	116946·2	108183·1	99787·0	91778·5	84173·1	76977·8	63
59	107949·3	99659·6	91721·1	84154·0	76974·2	70189·5	64

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ . \ . \ .$$

FEMALES.

$3\frac{1}{2}$ PER CENT. COMMUTATION TABLE. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$N_{[x]}$	$N_{[x]+1}$	$N_{[x]+2}$	$N_{[x]+3}$	$N_{[x]+4}$	N_{x+5}	$x+5$
60	99430·6	91596·1	84097·3	76955·3	70185·9	63797·7	65
61	91371·7	83975·0	76899·8	70167·4	63794·2	57789·4	66
62	83754·6	76779·5	70112·8	63775·9	57786·0	52152·6	67
63	76563·1	69994·8	63722·5	57768·1	52149·3	46876·4	68
64	69780·4	63605·4	57714·9	52131·4	46872·9	41950·4	69
65	63393·7	57599·4	52079·0	46855·4	41947·1	37365·4	70
66	57389·8	51964·7	46803·7	41929·9	37362·3	33112·3	71
67	51756·3	46690·0	41878·5	37345·1	33109·2	29182·1	72
68	46483·0	41765·6	37294·1	33092·2	29179·0	25566·1	73
69	41559·8	37182·1	33041·6	29162·1	25562·9	22254·9	74
70	36978·1	32930·8	29112·3	25546·4	22251·8	19239·0	75
71	32728·5	29002·7	25497·3	22235·6	19236·1	16508·3	76
72	28802·9	25389·3	22187·4	19220·2	16505·4	14051·7	77
73	25192·8	22081·6	19173·2	16490·1	14049·0	11857·4	78
74	21889·0	19069·8	16444·3	14034·1	11854·7	9912·4	79
75	18882·3	16344·1	13989·9	11840·4	9909·9	8203·1	80
76	16162·8	13893·5	11798·2	9896·3	8200·7	6714·8	81
77	13719·5	11706·1	9856·2	8188·0	6712·6	5432·0	82
78	11540·4	9769·1	8150·4	6700·8	5430·0	4338·5	83
79	9612·46	8068·36	6665·56	5418·96	4336·66	3417·57	84
80	7922·11	6589·51	5386·61	4326·61	3415·86	2652·08	85
81	6454·23	5316·73	4297·13	3406·86	2650·58	2024·95	86
82	5193·36	4233·87	3380·36	2642·54	2023·61	1519·13	87
83	4122·61	3323·82	2619·14	2016·59	1517·98	1118·11	88
84	3224·88	2569·29	1996·19	1511·95	1117·14	806·08	89
85	2482·82	1953·01	1494·46	1112·04	805·29	568·21	90
86	1878·72	1457·80	1097·39	801·05	567·53	390·84	91
87	1395·04	1066·77	788·98	564·12	390·32	261·811	92
88	1015·009	764·059	554·459	387·629	261·389	170·368	93
89	722·191	534·591	380·101	259·371	170·082	107·429	94
90	501·496	364·556	253·526	168·500	107·193	65·457	95
91	339·251	241·898	164·261	106·095	65·305	38·422	96
92	222·964	155·711	103·051	64·548	38·312	21·6462	97
93	141·9919	96·9599	62·3969	37·7989	21·5749	11·6577	98
94	87·3944	58·2704	36·4144	21·2564	11·6234	5·9910	99
95	51·8215	33·6585	20·3405	11·4185	5·9578	2·9050	100
96	29·5089	18·6559	10·9068	5·8582	2·9050	1·3340	101
97	16·0766	9·8560	5·5287	2·8409	1·3340	·5596	102
98	8·3713	4·9712	2·6816	1·3030	·5596	·2005	103
99	4·0931	2·3344	1·1802	·5297	·2005	·0559	104

$$N_{[x]+t} = D_{[x]+t} + D_{[x]+t+1} + \ldots$$

FEMALES.

$3\frac{1}{2}$ PER CENT. VALUE OF AN ANNUITY OF 1. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
20	20·718	20·501	20·297	20·109	19·936	19·769	25
21	20·576	20·354	20·146	19·953	19·773	19·602	26
22	20·431	20·203	19·989	19·790	19·606	19·429	27
23	20·280	20·047	19·828	19·623	19·433	19·251	28
24	20·124	19·886	19·660	19·450	19·255	19·068	29
25	19·964	19·719	19·488	19·273	19·073	18·881	30
26	19·798	19·548	19·311	19·091	18·886	18·690	31
27	19·628	19·371	19·129	18·904	18·694	18·494	32
28	19·453	19·191	18·942	18·712	18·498	18·294	33
29	19·273	19·005	18·752	18·517	18·299	18·090	34
30	19·090	18·815	18·557	18·317	18·094	17·882	35
31	18·902	18·621	18·357	18·113	17·886	17·670	36
32	18·709	18·423	18·154	17·905	17·674	17·454	37
33	18·513	18·221	17·947	17·694	17·459	17·236	38
34	18·313	18·015	17·736	17·479	17·241	17·014	39
35	18·110	17·805	17·521	17·260	17·019	16·788	40
36	17·902	17·592	17·304	17·038	16·793	16·559	41
37	17·692	17·376	17·082	16·814	16·564	16·328	42
38	17·478	17·156	16·858	16·585	16·333	16·093	43
39	17·260	16·933	16·631	16·353	16·098	15·855	44
40	17·040	16·707	16·400	16·119	15·860	15·613	45
41	16·816	16·478	16·166	15·881	15·619	15·368	46
42	16·590	16·245	15·929	15·640	15·374	15·120	47
43	16·360	16·010	15·688	15·395	15·125	14·867	48
44	16·127	15·771	15·444	15·146	14·873	14·610	49
45	15·890	15·529	15·197	14·894	14·615	14·349	50
46	15·650	15·282	14·945	14·637	14·354	14·082	51
47	15·406	15·032	14·689	14·377	14·087	13·810	52
48	15·158	14·777	14·428	14·110	13·815	13·531	53
49	14·905	14·516	14·162	13·838	13·537	13·247	54
50	14·647	14·252	13·891	13·560	13·252	12·954	55
51	14·384	13·981	13·612	13·275	12·960	12·656	56
52	14·113	13·704	13·328	12·983	12·661	12·349	57
53	13·838	13·420	13·037	12·684	12·354	12·033	58
54	13·555	13·129	12·737	12·376	12·038	11·710	59
55	13·264	12·831	12·430	12·062	11·715	11·378	60
56	12·966	12·523	12·115	11·738	11·384	11·039	61
57	12·660	12·208	11·792	11·406	11·045	10·693	62
58	12·345	11·885	11·460	11·068	10·698	10·340	63
59	12·022	11·554	11·121	10·721	10·345	9·981	64

FEMALES.

$3\frac{1}{2}$ PER CENT. VALUE OF AN ANNUITY OF 1. $3\frac{1}{2}$ PER CENT.

Age at Entry	Years Elapsed since Date of Purchase						Age Attained
	0	1	2	3	4	5 or more	
$[x]$	$a_{[x]}$	$a_{[x]+1}$	$a_{[x]+2}$	$a_{[x]+3}$	$a_{[x]+4}$	a_{x+5}	$x+5$
60	11·691	11·215	10·775	10·368	9·987	9·618	65
61	11·353	10·869	10·422	10·010	9·624	9·252	66
62	11·008	10·517	10·064	9·647	9·258	8·884	67
63	10·657	10·159	9·702	9·281	8·890	8·516	68
64	10·300	9·798	9·337	8·914	8·522	8·150	69
65	9·941	9·434	8·970	8·546	8·155	7·785	70
66	9·579	9·069	8·603	8·180	7·791	7·425	71
67	9·216	8·704	8·238	7·816	7·431	7·070	72
68	8·854	8·341	7·875	7·457	7·076	6·721	73
69	8·493	7·980	7·517	7·102	6·728	6·379	74
70	8·137	7·624	7·164	6·754	6·386	6·045	75
71	7·784	7·274	6·817	6·413	6·052	5·720	76
72	7·438	6·929	6·478	6·080	5·727	5·403	77
73	7·098	6·592	6·146	5·755	5·410	5·096	78
74	6·764	6·263	5·823	5·440	5·103	4·799	79
75	6·439	5·943	5·508	5·133	4·806	4·512	80
76	6·123	5·631	5·203	4·837	4·519	4·235	81
77	5·814	5·328	4·908	4·550	4·242	3·967	82
78	5·515	5·035	4·623	4·273	3·975	3·711	83
79	5·225	4·752	4·347	4·007	3·718	3·465	84
80	4·945	4·478	4·082	3·751	3·472	3·229	85
81	4·674	4·214	3·827	3·505	3·237	3·003	86
82	4·413	3·961	3·582	3·270	3·011	2·788	87
83	4·161	3·717	3·347	3·045	2·796	2·583	88
84	3·919	3·483	3·122	2·829	2·591	2·389	89
85	3·686	3·259	2·908	2·625	2·397	2·204	90
86	3·463	3·045	2·703	2·430	2·212	2·029	91
87	3·250	2·840	2·509	2·246	2·037	1·863	92
88	3·045	2·645	2·324	2·071	1·872	1·707	93
89	2·850	2·460	2·148	1·905	1·715	1·560	94
90	2·662	2·284	1·982	1·748	1·568	1·421	95
91	2·485	2·116	1·824	1·601	1·429	1·290	96
92	2·315	1·957	1·676	1·460	1·299	1·167	97
93	2·153	1·805	1·537	1·330	1·176	1·057	98
94	2·001	1·666	1·402	1·207	1·064	·941	99
95	1·853	1·527	1·280	1·091	·952	·849	100
96	1·719	1·408	1·160	·984	·849	·723	101
97	1·584	1·278	1·057	·885	·723	·558	102
98	1·462	1·171	·945	·753	·558	·386	103
99	1·327	1·023	·814	·609	·386	...	104

FEMALES.

VALUE OF AN ANNUITY OF 1.

Age.	2¼ %		2¾ %		3¼ %		Age.
x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	x
20	26·148	...	23·721	...	21·645	...	20
21	25·905	...	23·528	...	21·489	...	21
22	25·655	...	23·329	...	21·327	...	22
23	25·403	...	23·123	...	21·160	...	23
24	25·143	...	22·913	...	20·988	...	24
25	24·878	24·634	22·697	22·475	20·811	20·608	25
26	24·607	24·361	22·475	22·251	20·629	20·424	26
27	24·331	24·081	22·248	22·022	20·442	20·234	27
28	24·049	23·798	22·017	21·788	20·250	20·040	28
29	23·764	23·508	21·781	21·548	20·054	19·840	29
30	23·473	23·215	21·540	21·303	19·853	19·636	30
31	23·178	22·915	21·295	21·055	19·648	19·427	31
32	22·881	22·614	21·045	20·801	19·438	19·214	32
33	22·577	22·307	20·792	20·545	19·225	18·997	33
34	22·271	21·996	20·535	20·283	19·008	18·775	34
35	21·961	21·682	20·274	20·018	18·787	18·550	35
36	21·648	21·364	20·010	19·748	18·563	18·321	36
37	21·332	21·043	19·741	19·476	18·335	18·088	37
38	21·014	20·720	19·471	19·200	18·104	17·853	38
39	20·691	20·393	19·197	18·921	17·869	17·613	39
40	20·368	20·065	18·920	18·639	17·632	17·371	40
41	20·041	19·733	18·641	18·354	17·391	17·125	41
42	19·712	19·399	18·358	18·067	17·147	16·876	42
43	19·381	19·062	18·073	17·776	16·901	16·624	43
44	19·048	18·724	17·784	17·483	16·650	16·369	44
45	18·712	18·382	17·492	17·186	16·397	16·111	45
46	18·372	18·038	17·198	16·887	16·140	15·849	46
47	18·030	17·692	16·899	16·584	15·879	15·583	47
48	17·684	17·342	16·598	16·278	15·614	15·314	48
49	17·334	16·989	16·291	15·967	15·344	15·040	49
50	16·980	16·632	15·979	15·653	15·070	14·763	50
51	16·623	16·271	15·663	15·333	14·790	14·480	51
52	16·258	15·905	15·341	15·009	14·505	14·191	52
53	15·889	15·535	15·013	14·679	14·213	13·898	53
54	15·514	15·158	14·678	14·343	13·913	13·597	54
55	15·132	14·775	14·337	14·000	13·607	13·289	55
56	14·743	14·387	13·988	13·651	13·293	12·974	56
57	14·347	13·991	13·631	13·294	12·971	12·651	57
58	13·944	13·589	13·267	12·929	12·640	12·320	58
59	13·534	13·180	12·894	12·558	12·302	11·981	59
60	13·118	12·764	12·515	12·178	11·956	11·636	60
61	12·696	12·342	12·129	11·792	11·602	11·281	61
62	12·269	11·915	11·737	11·400	11·242	10·920	62
63	11·838	11·484	11·340	11·003	10·877	10·553	63
64	11·405	11·049	10·941	10·601	10·507	10·181	64

FEMALES.

VALUE OF AN ANNUITY OF 1.

Age. x	$2\frac{1}{4}$% At Date of Purchase. $a_{[x]}$	$2\frac{1}{4}$% After Five Years from Purchase. a_x	$2\frac{3}{4}$% At Date of Purchase. $a_{[x]}$	$2\frac{3}{4}$% After Five Years from Purchase. a_x	$3\frac{1}{4}$% At Date of Purchase. $a_{[x]}$	$3\frac{1}{4}$% After Five Years from Purchase. a_x	Age. x
65	10·971	10·612	10·539	10·195	10·134	9·805	65
66	10·536	10·175	10·135	9·788	9·758	9·426	66
67	10·105	9·739	9·733	9·382	9·383	9·045	67
68	9·677	9·306	9·333	8·976	9·009	8·665	68
69	9·254	8·877	8·937	8·573	8·637	8·287	69
70	8·838	8·454	8·546	8·175	8·270	7·912	70
71	8·430	8·038	8·161	7·783	7·907	7·541	71
72	8·031	7·631	7·784	7·398	7·550	7·177	72
73	7·641	7·233	7·415	7·020	7·201	6·819	73
74	7·261	6·845	7·055	6·652	6·859	6·468	74
75	6·893	6·468	6·705	6·293	6·526	6·126	75
76	6·536	6·103	6·365	5·945	6·202	5·793	76
77	6·191	5·750	6·035	5·607	5·886	5·470	77
78	5·857	5·409	5·716	5·280	5·581	5·156	78
79	5·535	5·080	5·408	4·964	5·285	4·853	79
80	5·225	4·764	5·110	4·661	4·999	4·560	80
81	4·927	4·461	4·823	4·368	4·723	4·278	81
82	4·641	4·170	4·547	4·087	4·457	4·007	82
83	4·367	3·891	4·283	3·817	4·201	3·746	83
84	4·104	3·625	4·028	3·559	3·955	3·496	84
85	3·852	3·371	3·784	3·313	3·719	3·257	85
86	3·613	3·130	3·552	3·078	3·492	3·028	86
87	3·383	2·900	3·329	2·854	3·276	2·810	87
88	3·164	2·682	3·115	2·641	3·068	2·602	88
89	2·956	2·475	2·913	2·440	2·870	2·406	89
90	2·757	2·279	2·718	2·248	2·681	2·218	90
91	2·569	2·095	2·535	2·068	2·501	2·042	91
92	2·390	1·921	2·360	1·897	2·330	1·874	92
93	2·220	1·757	2·193	1·737	2·166	1·717	93
94	2·060	1·603	2·036	1·586	2·012	1·568	94
95	1·905	1·459	1·884	1·444	1·863	1·429	95
96	1·765	1·323	1·746	1·310	1·728	1·297	96
97	1·625	1·195	1·609	1·184	1·592	1·173	97
98	1·498	1·081	1·483	1·072	1·469	1·062	98
99	1·358	·962	1·345	·953	1·333	·945	99
100	...	·866	...	·859	...	·852	100
101	...	·736	...	·730	...	·725	101
102	...	·567	...	·563	...	·560	102
103	...	·391	...	·389	...	·387	103

FEMALES.

VALUE OF AN ANNUITY OF 1.

Age.	4 %		4½ %		5 %		Age.
x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	x
20	19·052	...	17·603	...	16·335	...	20
21	18·937	...	17·509	...	16·258	...	21
22	18·817	...	17·410	...	16·176	...	22
23	18·694	...	17·308	...	16·091	...	23
24	18·565	...	17·201	...	16·001	...	24
25	18·432	18·253	17·091	16·926	15·909	15·756	25
26	18·295	18·114	16·976	16·809	15·812	15·657	26
27	18·153	17·970	16·857	16·687	15·712	15·555	27
28	18·007	17·820	16·734	16·562	15·608	15·448	28
29	17·857	17·667	16·607	16·432	15·500	15·337	29
30	17·702	17·509	16·476	16·298	15·389	15·223	30
31	17·543	17·347	16·341	16·159	15·274	15·105	31
32	17·380	17·181	16·203	16·017	15·155	14·983	32
33	17·214	17·011	16·061	15·872	15·034	14·858	33
34	17·044	16·836	15·915	15·722	14·909	14·729	34
35	16·870	16·659	15·767	15·570	14·781	14·596	35
36	16·693	16·477	15·614	15·413	14·648	14·461	36
37	16·512	16·291	15·459	15·253	14·514	14·322	37
38	16·329	16·103	15·300	15·090	14·376	14·179	38
39	16·141	15·911	15·138	14·923	14·235	14·034	39
40	15·951	15·716	14·972	14·753	14·092	13·885	40
41	15·757	15·517	14·805	14·580	13·945	13·734	41
42	15·561	15·316	14·633	14·404	13·795	13·580	42
43	15·361	15·111	14·459	14·225	13·643	13·422	43
44	15·157	14·903	14·281	14·042	13·486	13·261	44
45	14·951	14·691	14·099	13·855	13·327	13·097	45
46	14·740	14·476	13·915	13·666	13·163	12·929	46
47	14·525	14·257	13·725	13·473	12·997	12·758	47
48	14·307	14·034	13·533	13·275	12·826	12·582	48
49	14·083	13·806	13·335	13·073	12·651	12·403	49
50	13·855	13·574	13·132	12·866	12·470	12·219	50
51	13·621	13·337	12·924	12·656	12·284	12·029	51
52	13·381	13·094	12·710	12·438	12·092	11·834	52
53	13·135	12·845	12·489	12·214	11·894	11·633	53
54	12·881	12·589	12·261	11·984	11·689	11·425	54
55	12·620	12·326	12·026	11·747	11·476	11·211	55
56	12·351	12·056	11·782	11·501	11·256	10·989	56
57	12·073	11·777	11·531	11·249	11·027	10·758	57
58	11·787	11·490	11·270	10·987	10·790	10·519	58
59	11·493	11·195	11·001	10·717	10·543	10·272	59
60	11·190	10·892	10·724	10·439	10·289	10·016	60
61	10·880	10·580	10·438	10·151	10·026	9·751	61
62	10·562	10·261	10·145	9·856	9·755	9·479	62
63	10·237	9·934	9·845	9·554	9·477	9·198	63
64	9·907	9·601	9·538	9·244	9·192	8·910	64

FEMALES.

VALUE OF AN ANNUITY OF 1.

Age.	4 %		4½ %		5 %		Age.
x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	At Date of Purchase. $a_{[x]}$	After Five Years from Purchase. a_x	x
65	9·573	9·263	9·227	8·930	8·902	8·615	65
66	9·235	8·922	8·912	8·610	8·607	8·317	66
67	8·896	8·577	8·594	8·287	8·309	8·014	67
68	8·557	8·232	8·276	7·963	8·010	7·708	68
69	8·218	7·886	7·957	7·637	7·711	7·401	69
70	7·882	7·543	7·641	7·313	7·411	7·094	70
71	7·550	7·202	7·326	6·990	7·114	6·788	71
72	7·221	6·865	7·015	6·670	6·819	6·485	72
73	6·898	6·534	6·709	6·355	6·527	6·184	73
74	6·582	6·208	6·407	6·045	6·241	5·888	74
75	6·272	5·889	6·112	5·740	5·959	5·597	75
76	5·969	5·578	5·823	5·442	5·683	5·312	76
77	5·675	5·275	5·541	5·152	5·412	5·034	77
78	5·388	4·980	5·266	4·868	5·149	4·761	78
79	5·110	4·694	4·999	4·593	4·892	4·496	79
80	4·840	4·417	4·739	4·326	4·642	4·238	80
81	4·579	4·150	4·487	4·068	4·399	3·989	81
82	4·327	3·891	4·244	3·818	4·163	3·747	82
83	4·084	3·643	4·008	3·577	3·936	3·513	83
84	3·849	3·404	3·781	3·345	3·716	3·288	84
85	3·623	3·175	3·562	3·123	3·503	3·072	85
86	3·407	2·955	3·352	2·909	3·299	2·864	86
87	3·199	2·746	3·150	2·705	3·102	2·664	87
88	2·999	2·546	2·955	2·509	2·912	2·474	88
89	2·809	2·356	2·769	2·324	2·731	2·292	89
90	2·626	2·175	2·590	2·146	2·556	2·119	90
91	2·452	2·004	2·421	1·979	2·390	1·955	91
92	2·287	1·841	2·258	1·819	2·231	1·798	92
93	2·128	1·688	2·102	1·669	2·078	1·650	93
94	1·978	1·543	1·956	1·526	1·934	1·510	94
95	1·833	1·407	1·813	1·392	1·794	1·378	95
96	1·701	1·278	1·684	1·265	1·667	1·253	96
97	1·569	1·156	1·553	1·146	1·538	1·135	97
98	1·448	1·048	1·435	1·039	1·422	1·030	98
99	1·316	·933	1·304	·926	1·293	·918	99
100	...	·843	...	·836	...	·830	100
101	...	·718	...	·713	...	·708	101
102	...	·555	...	·551	...	·548	102
103	...	·385	...	·383	...	·381	103

BRITISH OFFICES LIFE ANNUITY TABLES, 1893.

VALUES OF ANNUITIES ON TWO JOINT LIVES.

TWO MALES.

$2\frac{1}{2}$, 3, and $3\frac{1}{2}$ per cent.

SELECT AND ULTIMATE VALUES.

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 0 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
20	20	20·565	...	19·011	...	17·643	...	20	20
21	21	20·343	...	18·825	...	17·487	...	21	21
22	22	20·117	...	18·635	...	17·326	...	22	22
23	23	19·884	...	18·439	...	17·160	...	23	23
24	24	19·644	...	18·237	...	16·988	...	24	24
25	25	19·400	18·998	18·029	17·656	16·811	16·465	25	25
26	26	19·149	18·750	17·815	17·445	16·628	16·284	26	26
27	27	18·893	18·496	17·596	17·228	16·440	16·097	27	27
28	28	18·631	18·236	17·371	17·004	16·246	15·905	28	28
29	29	18·362	17·970	17·140	16·775	16·046	15·705	29	29
30	30	18·089	17·697	16·904	16·539	15·842	15·501	30	30
31	31	17·809	17·420	16·661	16·299	15·630	15·292	31	31
32	32	17·523	17·136	16·413	16·052	15·413	15·076	32	32
33	33	17·232	16·847	16·159	15·799	15·191	14·854	33	33
34	34	16·935	16·552	15·899	15·541	14·963	14·626	34	34
35	35	16·633	16·251	15·633	15·276	14·729	14·393	35	35
36	36	16·326	15·945	15·363	15·006	14·489	14·154	36	36
37	37	16·014	15·634	15·087	14·731	14·245	13·909	37	37
38	38	15·697	15·318	14·806	14·449	13·995	13·659	38	38
39	39	15·375	14·997	14·519	14·164	13·739	13·404	39	39
40	40	15·048	14·671	14·228	13·873	13·479	13·143	40	40
41	41	14·718	14·341	13·933	13·577	13·214	12·877	41	41
42	42	14·384	14·006	13·633	13·276	12·944	12·607	42	42
43	43	14·046	13·669	13·329	12·972	12·670	12·332	43	43
44	44	13·705	13·327	13·020	12·663	12·391	12·051	44	44
45	45	13·361	12·982	12·710	12·350	12·108	11·768	45	45
46	46	13·014	12·635	12·395	12·034	11·822	11·480	46	46
47	47	12·665	12·285	12·076	11·715	11·532	11·188	47	47
48	48	12·315	11·932	11·757	11·393	11·240	10·893	48	48
49	49	11·962	11·578	11·434	11·068	10·944	10·594	49	49
50	50	11·610	11·223	11·110	10·741	10·646	10·294	50	50
51	51	11·257	10·868	10·786	10·414	10·346	9·991	51	51
52	52	10·903	10·511	10·459	10·085	10·045	9·686	52	52
53	53	10·551	10·155	10·133	9·754	9·743	9·380	53	53
54	54	10·199	9·801	9·807	9·425	9·439	9·073	54	54
55	55	9·849	9·447	9·481	9·095	9·136	8·765	55	55
56	56	9·501	9·095	9·156	8·766	8·833	8·458	56	56
57	57	9·154	8·744	8·833	8·439	8·531	8·151	57	57
58	58	8·811	8·397	8·512	8·113	8·229	7·845	58	58
59	59	8·472	8·053	8·193	7·789	7·930	7·540	59	59
60	60	8·137	7·713	7·878	7·468	7·632	7·237	60	60
61	61	7·806	7·377	7·565	7·151	7·338	6·937	61	61
62	62	7·480	7·046	7·257	6·838	7·046	6·640	62	62
63	63	7·159	6·720	6·953	6·528	6·758	6·346	63	63
64	64	6·843	6·400	6·654	6·224	6·474	6·057	64	64

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 0 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
65	65	6·534	6·086	6·360	5·925	6·194	5·771	65	65
66	66	6·232	5·779	6·072	5·632	5·919	5·491	66	66
67	67	5·936	5·478	5·790	5·344	5·649	5·216	67	67
68	68	5·648	5·186	5·514	5·064	5·385	4·947	68	68
69	69	5·368	4·901	5·245	4·790	5·127	4·684	69	69
70	70	5·094	4·624	4·982	4·524	4·875	4·427	70	70
71	71	4·830	4·355	4·727	4·265	4·629	4·177	71	71
72	72	4·572	4·095	4·480	4·014	4·391	3·935	72	72
73	73	4·323	3·844	4·240	3·771	4·159	3·700	73	73
74	74	4·083	3·602	4·007	3·536	3·934	3·472	74	74
75	75	3·851	3·368	3·783	3·310	3·716	3·253	75	75
76	76	3·628	3·144	3·566	3·092	3·506	3·041	76	76
77	77	3·413	2·930	3·358	2·883	3·303	2·838	77	77
78	78	3·207	2·724	3·157	2·683	3·108	2·643	78	78
79	79	3·009	2·528	2·964	2·491	2·920	2·456	79	79
80	80	2·819	2·341	2·779	2·308	2·739	2·277	80	80
81	81	2·638	2·163	2·602	2·134	2·566	2·107	81	81
82	82	2·464	1·994	2·432	1·969	2·400	1·944	82	82
83	83	2·298	1·834	2·270	1·812	2·242	1·791	83	83
84	84	2·141	1·683	2·115	1·663	2·090	1·645	84	84
85	85	1·990	1·540	1·967	1·523	1·945	1·507	85	85
86	86	1·847	1·405	1·827	1·390	1·807	1·376	86	86
87	87	1·711	1·279	1·693	1·266	1·676	1·254	87	87
88	88	1·582	1·160	1·566	1·149	1·551	1·138	88	88
89	89	1·460	1·049	1·446	1·040	1·432	1·030	89	89
90	90	1·344	·945	1·332	·937	1·319	·929	90	90
91	91	1·234	·849	1·224	·842	1·213	·835	91	91
92	92	1·131	·759	1·121	·753	1·112	·747	92	92
93	93	1·031	·676	1·025	·671	1·016	·666	93	93
94	94	·941	·599	·934	·595	·926	·591	94	94
95	95	·854	·528	·848	·525	·842	·521	95	95
96	96	·773	·463	·768	·460	·762	·457	96	96
97	97	·697	·404	·692	·401	·687	·399	97	97
98	98	·626	·350	·621	·348	·617	·345	98	98
99	99	·559	·301	·555	·299	·552	·297	99	99
100	100	...	·256	...	·255	...	·253	100	100
101	101	...	·216	...	·215	...	·214	101	101
102	102	...	·178	...	·178	...	·177	102	102
103	103	...	·133	...	·133	...	·132	103	103

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 5 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
25	20	19·937	...	18·484	...	17·198	...	25	20
26	21	19·699	...	18·283	...	17·028	...	26	21
27	22	19·456	...	18·077	...	16·852	...	27	22
28	23	19·207	...	17·865	...	16·671	...	28	23
29	24	18·952	...	17·647	...	16·484	...	29	24
30	25	18·692	18·296	17·423	17·056	16·291	15·949	30	25
31	26	18·424	18·031	17·193	16·828	16·092	15·751	31	26
32	27	18·151	17·760	16·958	16·594	15·888	15·549	32	27
33	28	17·873	17·484	16·717	16·355	15·679	15·340	33	28
34	29	17·589	17·202	16·470	16·109	15·463	15·125	34	29
35	30	17·299	16·913	16·217	15·857	15·242	14·905	35	30
36	31	17·004	16·620	15·959	15·600	15·015	14·679	36	31
37	32	16·703	16·320	15·695	15·337	14·783	14·447	37	32
38	33	16·397	16·016	15·425	15·068	14·545	14·209	38	33
39	34	16·085	15·706	15·150	14·794	14·301	13·966	39	34
40	35	15·769	15·390	14·870	14·514	14·052	13·717	40	35
41	36	15·449	15·071	14·585	14·229	13·798	13·463	41	36
42	37	15·123	14·746	14·295	13·939	13·539	13·203	42	37
43	38	14·794	14·417	14·001	13·645	13·275	12·939	43	38
44	39	14·460	14·083	13·702	13·345	13·006	12·669	44	39
45	40	14·123	13·746	13·399	13·042	12·733	12·395	45	40
46	41	13·783	13·405	13·091	12·734	12·455	12·116	46	41
47	42	13·439	13·061	12·781	12·422	12·173	11·833	47	42
48	43	13·094	12·714	12·467	12·107	11·888	11·546	48	43
49	44	12·745	12·365	12·149	11·788	11·598	11·255	49	44
50	45	12·395	12·012	11·830	11·466	11·307	10·960	50	45
51	46	12·043	11·660	11·508	11·143	11·012	10·663	51	46
52	47	11·690	11·304	11·184	10·817	10·714	10·363	52	47
53	48	11·338	10·949	10·860	10·488	10·415	10·060	53	48
54	49	10·984	10·593	10·534	10·160	10·114	9·756	54	49
55	50	10·631	10·237	10·208	9·830	9·812	9·450	55	50
56	51	10·279	9·882	9·881	9·500	9·509	9·143	56	51
57	52	9·928	9·527	9·555	9·170	9·205	8·836	57	52
58	53	9·580	9·174	9·230	8·841	8·902	8·528	58	53
59	54	9·233	8·824	8·907	8·513	8·600	8·221	59	54
60	55	8·890	8·476	8·585	8·187	8·298	7·914	60	55
61	56	8·550	8·131	8·266	7·863	7·998	7·609	61	56
62	57	8·213	7·790	7·950	7·542	7·700	7·306	62	57
63	58	7·881	7·453	7·636	7·223	7·404	7·005	63	58
64	59	7·553	7·121	7·327	6·909	7·112	6·708	64	59
65	60	7·231	6·794	7·022	6·599	6·823	6·413	65	60
66	61	6·915	6·473	6·722	6·293	6·538	6·122	66	61
67	62	6·605	6·157	6·427	5·993	6·257	5·836	67	62
68	63	6·301	5·848	6·137	5·698	5·981	5·555	68	63
69	64	6·003	5·546	5·854	5·410	5·710	5·279	69	64

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 5 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
70	65	5·713	5·252	5·577	5·127	5·445	5·008	70	65
71	66	5·431	4·965	5·305	4·852	5·185	4·743	71	66
72	67	5·156	4·686	5·042	4·584	4·932	4·485	72	67
73	68	4·889	4·416	4·785	4·323	4·685	4·234	73	68
74	69	4·630	4·154	4·536	4·070	4·445	3·990	74	69
75	70	4·380	3·901	4·294	3·825	4·211	3·753	75	70
76	71	4·137	3·656	4·060	3·589	3·985	3·524	76	71
77	72	3·904	3·421	3·834	3·361	3·765	3·302	77	72
78	73	3·678	3·195	3·615	3·141	3·553	3·089	78	73
79	74	3·462	2·978	3·404	2·930	3·349	2·884	79	74
80	75	3·253	2·770	3·202	2·728	3·152	2·686	80	75
81	76	3·053	2·572	3·007	2·534	2·962	2·498	81	76
82	77	2·862	2·383	2·820	2·349	2·780	2·317	82	77
83	78	2·678	2·203	2·641	2·174	2·605	2·145	83	78
84	79	2·503	2·032	2·470	2·006	2·438	1·981	84	79
85	80	2·336	1·870	2·306	1·847	2·277	1·825	85	80
86	81	2·176	1·716	2·150	1·697	2·124	1·677	86	81
87	82	2·024	1·572	2·001	1·554	1·978	1·537	87	82
88	83	1·879	1·435	1·858	1·420	1·838	1·405	88	83
89	84	1·742	1·307	1·723	1·294	1·705	1·281	89	84
90	85	1·611	1·187	1·595	1·175	1·579	1·164	90	85
91	86	1·487	1·074	1·473	1·064	1·459	1·054	91	86
92	87	1·370	·968	1·357	·960	1·345	·952	92	87
93	88	1·259	·870	1·248	·863	1·237	·856	93	88
94	89	1·154	·779	1·144	·773	1·134	·767	94	89
95	90	1·055	·694	1·046	·689	1·038	·684	95	90
96	91	·962	·616	·954	·612	·947	·607	96	91
97	92	·874	·544	·867	·540	·861	·536	97	92
98	93	·791	·478	·785	·474	·780	·471	98	93
99	94	·713	·417	·708	·414	·703	·411	99	94
100	95	...	·361	...	·359	...	·357	100	95
101	96	...	·309	...	·308	...	·306	101	96
102	97	...	·258	...	·257	...	·255	102	97
103	98	...	·189	...	·188	...	·188	103	98

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 10 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
30	20	19·135	...	17·803	...	16·617	...	30	20
31	21	18·878	...	17·583	...	16·429	...	31	21
32	22	18·615	...	17·358	...	16·234	...	32	22
33	23	18·347	...	17·127	...	16·034	...	33	23
34	24	18·072	...	16·889	...	15·829	...	34	24
35	25	17·792	17·403	16·646	16·283	15·617	15·278	35	25
36	26	17·506	17·119	16·397	16·036	15·400	15·062	36	26
37	27	17·214	16·829	16·143	15·783	15·177	14·840	37	27
38	28	16·917	16·534	15·883	15·524	14·949	14·612	38	28
39	29	16·615	16·233	15·617	15·259	14·715	14·379	39	29
40	30	16·307	15·926	15·347	14·989	14·475	14·139	40	30
41	31	15·994	15·615	15·070	14·714	14·230	13·894	41	31
42	32	15·677	15·299	14·788	14·432	13·979	13·644	42	32
43	33	15·355	14·977	14·502	14·146	13·724	13·389	43	33
44	34	15·028	14·651	14·210	13·855	13·463	13·128	44	34
45	35	14·698	14·321	13·915	13·559	13·198	12·862	45	35
46	36	14·363	13·986	13·614	13·258	12·928	12·591	46	36
47	37	14·025	13·648	13·310	12·953	12·653	12·315	47	37
48	38	13·684	13·306	13·002	12·644	12·374	12·035	48	38
49	39	13·340	12·961	12·690	12·331	12·091	11·750	49	39
50	40	12·993	12·613	12·375	12·014	11·805	11·462	50	40
51	41	12·644	12·263	12·057	11·695	11·515	11·170	51	41
52	42	12·294	11·911	11·737	11·373	11·221	10·874	52	42
53	43	11·941	11·556	11·415	11·048	10·926	10·576	53	43
54	44	11·589	11·202	11·091	10·722	10·628	10·275	54	44
55	45	11·235	10·846	10·766	10·394	10·328	9·972	55	45
56	46	10·882	10·490	10·439	10·064	10·027	9·668	56	46
57	47	10·530	10·134	10·113	9·735	9·724	9·362	57	47
58	48	10·177	9·779	9·787	9·405	9·421	9·054	58	48
59	49	9·827	9·425	9·461	9·075	9·117	8·746	59	49
60	50	9·479	9·073	9·137	8·746	8·815	8·439	60	50
61	51	9·134	8·723	8·814	8·419	8·512	8·132	61	51
62	52	8·791	8·376	8·493	8·093	8·211	7·826	62	52
63	53	8·452	8·032	8·174	7·770	7·912	7·521	63	53
64	54	8·116	7·692	7·859	7·449	7·614	7·219	64	54
65	55	7·785	7·357	7·546	7·132	7·320	6·919	65	55
66	56	7·460	7·026	7·239	6·819	7·028	6·622	66	56
67	57	7·139	6·700	6·935	6·510	6·740	6·328	67	57
68	58	6·824	6·381	6·636	6·206	6·456	6·039	68	58
69	59	6·516	6·067	6·343	5·907	6·177	5·754	69	59
70	60	6·214	5·760	6·055	5·614	5·902	5·474	70	60
71	61	5·919	5·461	5·773	5·327	5·633	5·199	71	61
72	62	5·631	5·168	5·497	5·047	5·369	4·931	72	62
73	63	5·351	4·884	5·229	4·774	5·111	4·668	73	63
74	64	5·078	4·607	4·967	4·508	4·860	4·412	74	64

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 10 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
75	65	4·814	4·339	4·712	4·249	4·615	4·163	75	65
76	66	4·557	4·080	4·465	3·999	4·376	3·921	76	66
77	67	4·309	3·829	4·225	3·756	4·145	3·686	77	67
78	68	4·069	3·587	3·994	3·522	3·920	3·459	78	68
79	69	3·838	3·355	3·769	3·296	3·703	3·240	79	69
80	70	3·615	3·131	3·553	3·079	3·494	3·029	80	70
81	71	3·400	2·917	3·345	2·871	3·291	2·826	81	71
82	72	3·195	2·712	3·145	2·671	3·096	2·631	82	72
83	73	2·997	2·516	2·952	2·480	2·909	2·445	83	73
84	74	2·808	2·330	2·768	2·298	2·729	2·266	84	74
85	75	2·627	2·152	2·591	2·124	2·556	2·096	85	75
86	76	2·454	1·984	2·422	1·959	2·391	1·935	86	76
87	77	2·289	1·825	2·260	1·803	2·232	1·781	87	77
88	78	2·131	1·674	2·106	1·655	2·081	1·636	88	78
89	79	1·981	1·531	1·959	1·515	1·937	1·498	89	79
90	80	1·839	1·397	1·819	1·383	1·799	1·369	90	80
91	81	1·703	1·271	1·685	1·259	1·668	1·246	91	81
92	82	1·575	1·153	1·559	1·142	1·543	1·132	92	82
93	83	1·453	1·043	1·439	1·033	1·425	1·024	93	83
94	84	1·337	·939	1·325	·931	1·313	·923	94	84
95	85	1·228	·843	1·217	·836	1·207	·829	95	85
96	86	1·125	·754	1·115	·748	1·106	·742	96	86
97	87	1·027	·671	1·019	·666	1·011	·661	97	87
98	88	·935	·594	·928	·590	·921	·586	98	88
99	89	·848	·524	·842	·520	·835	·516	99	89
100	90	...	·458	...	·455	...	·452	100	90
101	91	...	·396	...	·393	...	·391	101	91
102	92	...	·330	...	·329	...	·327	102	92
103	93	...	·237	...	·236	...	·235	103	93

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 15 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
35	20	18·143	...	16·951	...	15·882	...	35	20
36	21	17·864	...	16·709	...	15·672	...	36	21
37	22	17·580	...	16·463	...	15·456	...	37	22
38	23	17·291	...	16·209	...	15·236	...	38	23
39	24	16·995	...	15·951	...	15·008	...	39	24
40	25	16·693	16·311	15·686	15·329	14·775	14·439	40	25
41	26	16·387	16·006	15·417	15·059	14·537	14·201	41	26
42	27	16·076	15·696	15·142	14·785	14·293	13·958	42	27
43	28	15·759	15·381	14·861	14·505	14·045	13·709	43	28
44	29	15·438	15·060	14·576	14·221	13·791	13·455	44	29
45	30	15·113	14·735	14·287	13·930	13·532	13·195	45	30
46	31	14·784	14·407	13·991	13·636	13·267	12·931	46	31
47	32	14·450	14·073	13·692	13·336	12·998	12·661	47	32
48	33	14·113	13·736	13·389	13·032	12·724	12·387	48	33
49	34	13·772	13·395	13·081	12·724	12·446	12·108	49	34
50	35	13·429	13·050	12·771	12·412	12·165	11·824	50	35
51	36	13·083	12·703	12·457	12·097	11·878	11·537	51	36
52	37	12·735	12·354	12·140	11·778	11·590	11·245	52	37
53	38	12·384	12·002	11·820	11·456	11·297	10·951	53	38
54	39	12·033	11·648	11·498	11·132	11·002	10·654	54	39
55	40	11·680	11·294	11·175	10·806	10·705	10·354	55	40
56	41	11·327	10·938	10·850	10·479	10·406	10·051	56	41
57	42	10·973	10·582	10·524	10·149	10·105	9·747	57	42
58	43	10·620	10·226	10·198	9·820	9·802	9·441	58	43
59	44	10·268	9·870	9·871	9·490	9·499	9·134	59	44
60	45	9·918	9·516	9·546	9·160	9·196	8·826	60	45
61	46	9·569	9·164	9·220	8·831	8·893	8·519	61	46
62	47	9·223	8·813	8·897	8·503	8·590	8·212	62	47
63	48	8·879	8·465	8·575	8·177	8·289	7·905	63	48
64	49	8·539	8·121	8·256	7·853	7·989	7·600	64	49
65	50	8·202	7·780	7·940	7·532	7·691	7·297	65	50
66	51	7·871	7·443	7·627	7·214	7·395	6·996	66	51
67	52	7·543	7·111	7·318	6·899	7·103	6·698	67	52
68	53	7·221	6·784	7·013	6·589	6·814	6·404	68	53
69	54	6·905	6·463	6·713	6·284	6·529	6·113	69	54
70	55	6·595	6·147	6·418	5·984	6·248	5·827	70	55
71	56	6·291	5·839	6·129	5·689	5·973	5·546	71	56
72	57	5·994	5·537	5·845	5·401	5·702	5·270	72	57
73	58	5·705	5·243	5·568	5·119	5·437	5·000	73	58
74	59	5·422	4·956	5·298	4·843	5·177	4·735	74	59
75	60	5·148	4·678	5·034	4·576	4·924	4·477	75	60
76	61	4·881	4·408	4·777	4·315	4·677	4·226	76	61
77	62	4·622	4·146	4·528	4·063	4·437	3·982	77	62
78	63	4·372	3·893	4·287	3·818	4·204	3·746	78	63
79	64	4·130	3·649	4·053	3·582	3·978	3·517	79	64

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 15 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
80	65	3·897	3·414	3·827	3·354	3·759	3·296	80	65
81	66	3·671	3·188	3·608	3·134	3·547	3·082	81	66
82	67	3·455	2·971	3·398	2·924	3·343	2·877	82	67
83	68	3·247	2·764	3·196	2·722	3·146	2·681	83	68
84	69	3·047	2·566	3·001	2·528	2·957	2·492	84	69
85	70	2·856	2·377	2·815	2·344	2·775	2·312	85	70
86	71	2·673	2·197	2·636	2·168	2·600	2·140	86	71
87	72	2·498	2·027	2·465	2·001	2·433	1·976	87	72
88	73	2·331	1·865	2·301	1·842	2·272	1·820	88	73
89	74	2·171	1·712	2·145	1·692	2·119	1·673	89	74
90	75	2·019	1·567	1·996	1·550	1·973	1·533	90	75
91	76	1·875	1·431	1·854	1·416	1·834	1·401	91	76
92	77	1·738	1·303	1·719	1·290	1·701	1·277	92	77
93	78	1·607	1·183	1·591	1·172	1·575	1·161	93	78
94	79	1·484	1·070	1·469	1·061	1·455	1·051	94	79
95	80	1·366	·965	1·354	·957	1·341	·949	95	80
96	81	1·255	·867	1·244	·860	1·233	·853	96	81
97	82	1·150	·776	1·141	·770	1·131	·764	97	82
98	83	1·051	·691	1·042	·686	1·034	·681	98	83
99	84	·956	·613	·949	·608	·941	·604	99	84
100	85	...	·539	...	·535	...	·531	100	85
101	86	...	·467	...	·464	...	·461	101	86
102	87	...	·389	...	·387	...	·385	102	87
103	88	...	·275	...	·274	...	·272	103	88

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 20 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
40	20	16·962	...	15·923	...	14·983	...	40	20
41	21	16·661	...	15·657	...	14·750	...	41	21
42	22	16·354	...	15·388	...	14·511	...	42	22
43	23	16·042	...	15·112	...	14·268	...	43	23
44	24	15·725	...	14·831	...	14·018	...	44	24
45	25	15·404	15·026	14·546	14·190	13·763	13·427	45	25
46	26	15·078	14·701	14·254	13·899	13·503	13·167	46	26
47	27	14·748	14·371	13·960	13·604	13·238	12·902	47	27
48	28	14·415	14·037	13·660	13·304	12·969	12·632	48	28
49	29	14·076	13·699	13·356	12·999	12·694	12·357	49	29
50	30	13·736	13·358	13·048	12·691	12·417	12·077	50	30
51	31	13·392	13·013	12·737	12·379	12·134	11·794	51	31
52	32	13·045	12·666	12·423	12·063	11·848	11·506	52	32
53	33	12·697	12·316	12·106	11·744	11·559	11·215	53	33
54	34	12·347	11·964	11·786	11·422	11·266	10·920	54	34
55	35	11·994	11·610	11·463	11·098	10·970	10·621	55	35
56	36	11·642	11·256	11·140	10·771	10·673	10·321	56	36
57	37	11·289	10·900	10·815	10·443	10·374	10·018	57	37
58	38	10·936	10·544	10·489	10·114	10·072	9·714	58	38
59	39	10·583	10·188	10·163	9·785	9·770	9·408	59	39
60	40	10·231	9·832	9·836	9·455	9·467	9·101	60	40
61	41	9·880	9·478	9·510	9·125	9·163	8·793	61	41
62	42	9·532	9·126	9·186	8·796	8·860	8·485	62	42
63	43	9·186	8·776	8·863	8·468	8·558	8·178	63	43
64	44	8·842	8·428	8·541	8·142	8·256	7·872	64	44
65	45	8·503	8·084	8·222	7·818	7·957	7·567	65	45
66	46	8·167	7·743	7·906	7·497	7·659	7·264	66	46
67	47	7·835	7·407	7·593	7·180	7·364	6·964	67	47
68	48	7·509	7·075	7·285	6·866	7·072	6·667	68	48
69	49	7·187	6·749	6·980	6·556	6·784	6·372	69	49
70	50	6·872	6·428	6·681	6·251	6·499	6·083	70	50
71	51	6·562	6·114	6·387	5·952	6·219	5·797	71	51
72	52	6·259	5·806	6·098	5·658	5·944	5·516	72	52
73	53	5·963	5·505	5·815	5·370	5·673	5·241	73	53
74	54	5·674	5·212	5·539	5·089	5·409	4·971	74	54
75	55	5·393	4·926	5·269	4·815	5·150	4·707	75	55
76	56	5·119	4·648	5·006	4·548	4·898	4·450	76	56
77	57	4·853	4·379	4·750	4·288	4·651	4·200	77	57
78	58	4·595	4·118	4·502	4·036	4·412	3·957	78	58
79	59	4·346	3·866	4·261	3·792	4·179	3·721	79	59
80	60	4·105	3·623	4·028	3·557	3·954	3·493	80	60
81	61	3·872	3·389	3·803	3·330	3·736	3·272	81	61
82	62	3·648	3·164	3·585	3·111	3·525	3·060	82	62
83	63	3·432	2·949	3·376	2·902	3·321	2·856	83	63
84	64	3·225	2·742	3·175	2·701	3·125	2·660	84	64

TWO MALES.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
DIFFERENCE IN AGE 20 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
85	65	3·026	2·545	2·981	2·508	2·937	2·472	85	65
86	66	2·836	2·357	2·795	2·325	2·755	2·293	86	66
87	67	2·654	2·179	2·617	2·150	2·582	2·122	87	67
88	68	2·480	2·009	2·447	1·984	2·415	1·959	88	68
89	69	2·313	1·848	2·284	1·826	2·256	1·804	89	69
90	70	2·155	1·696	2·129	1·676	2·103	1·657	90	70
91	71	2·004	1·552	1·981	1·535	1·958	1·519	91	71
92	72	1·860	1·417	1·839	1·402	1·819	1·388	92	72
93	73	1·723	1·290	1·705	1·277	1·687	1·264	93	73
94	74	1·594	1·170	1·578	1·159	1·562	1·148	94	74
95	75	1·471	1·059	1·456	1·049	1·442	1·040	95	75
96	76	1·354	·954	1·341	·946	1·329	·938	96	76
97	77	1·243	·857	1·232	·850	1·221	·843	97	77
98	78	1·138	·766	1·128	·760	1·119	·754	98	78
99	79	1·037	·681	1·029	·676	1·021	·671	99	79
100	80	...	·601	...	·596	...	·592	100	80
101	81	...	·522	...	·518	...	·515	101	81
102	82	...	·433	...	·431	...	·428	102	82
103	83	...	·302	...	·301	...	·299	103	83

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 25 YEARS.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
45	20	15·602	...	14·722	...	13·920	...	45	20
46	21	15·279	...	14·434	...	13·664	...	46	21
47	22	14·951	...	14·142	...	13·402	...	47	22
48	23	14·621	...	13·845	...	13·135	...	48	23
49	24	14·285	...	13·544	...	12·864	...	49	24
50	25	13·946	13·568	13·238	12·881	12·588	12·250	50	25
51	26	13·604	13·226	12·929	12·571	12·308	11·969	51	26
52	27	13·259	12·880	12·617	12·258	12·025	11·684	52	27
53	28	12·911	12·532	12·301	11·941	11·737	11·394	53	28
54	29	12·563	12·181	11·983	11·620	11·447	11·102	54	29
55	30	12·212	11·828	11·662	11·297	11·153	10·805	55	30
56	31	11·860	11·474	11·340	10·973	10·857	10·507	56	31
57	32	11·507	11·119	11·016	10·646	10·558	10·205	57	32
58	33	11·153	10·763	10·690	10·318	10·258	9·902	58	33
59	34	10·800	10·407	10·364	9·988	9·956	9·596	59	34
60	35	10·447	10·051	10·037	9·658	9·654	9·290	60	35
61	36	10·096	9·696	9·711	9·328	9·350	8·983	61	36
62	37	9·747	9·342	9·386	8·999	9·047	8·675	62	37
63	38	9·399	8·991	9·062	8·670	8·744	8·367	63	38
64	39	9·053	8·642	8·739	8·343	8·442	8·061	64	39
65	40	8·711	8·296	8·418	8·018	8·141	7·755	65	40
66	41	8·373	7·953	8·100	7·695	7·842	7·451	66	41
67	42	8·039	7·613	7·785	7·375	7·545	7·149	67	42
68	43	7·709	7·279	7·475	7·059	7·251	6·850	68	43
69	44	7·385	6·949	7·167	6·746	6·961	6·553	69	44
70	45	7·065	6·625	6·865	6·438	6·674	6·261	70	45
71	46	6·752	6·307	6·567	6·136	6·391	5·972	71	46
72	47	6·445	5·995	6·275	5·838	6·113	5·689	72	47
73	48	6·145	5·690	5·989	5·547	5·839	5·410	73	48
74	49	5·851	5·392	5·708	5·261	5·571	5·136	74	49
75	50	5·565	5·101	5·434	4·983	5·309	4·869	75	50
76	51	5·286	4·819	5·167	4·711	5·052	4·608	76	51
77	52	5·016	4·544	4·907	4·447	4·802	4·353	77	52
78	53	4·753	4·278	4·654	4·190	4·559	4·106	78	53
79	54	4·498	4·021	4·409	3·941	4·322	3·865	79	54
80	55	4·252	3·772	4·171	3·701	4·092	3·632	80	55
81	56	4·014	3·532	3·941	3·469	3·869	3·407	81	56
82	57	3·785	3·302	3·718	3·245	3·654	3·190	82	57
83	58	3·564	3·081	3·504	3·030	3·446	2·981	83	58
84	59	3·352	2·868	3·298	2·823	3·245	2·780	84	59
85	60	3·148	2·666	3·099	2·626	3·052	2·587	85	60
86	61	2·952	2·472	2·909	2·437	2·866	2·402	86	61
87	62	2·765	2·288	2·726	2·257	2·688	2·226	87	62
88	63	2·586	2·112	2·551	2·085	2·517	2·058	88	63
89	64	2·415	1·946	2·383	1·922	2·353	1·898	89	64

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 25 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
90	65	2·251	1·789	2·223	1·767	2·196	1·747	90	65
91	66	2·096	1·640	2·071	1·621	2·047	1·603	91	66
92	67	1·948	1·499	1·925	1·483	1·904	1·467	92	67
93	68	1·806	1·367	1·787	1·353	1·768	1·339	93	68
94	69	1·673	1·243	1·655	1·231	1·638	1·219	94	69
95	70	1·545	1·127	1·530	1·116	1·515	1·106	95	70
96	71	1·425	1·018	1·411	1·008	1·398	1·000	96	71
97	72	1·310	·916	1·298	·908	1·286	·900	97	72
98	73	1·201	·820	1·190	·814	1·180	·807	98	73
99	74	1·095	·731	1·086	·725	1·077	·720	99	74
100	75	...	·646	...	·641	...	·637	100	75
101	76	...	·561	...	·557	...	·553	101	76
102	77	...	·465	...	·462	...	·459	102	77
103	78	...	·321	...	·319	...	·318	103	78

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 30 YEARS.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Male.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
50	20	14·087	...	13·366	...	12·703	...	50	20
51	21	13·747	...	13·058	...	12·425	...	51	21
52	22	13·403	...	12·748	...	12·143	...	52	22
53	23	13·056	...	12·433	...	11·857	...	53	23
54	24	12·708	...	12·116	...	11·568	...	54	24
55	25	12·357	11·975	11·796	11·432	11·275	10·928	55	25
56	26	12·006	11·622	11·474	11·108	10·980	10·631	56	26
57	27	11·653	11·267	11·150	10·782	10·682	10·331	57	27
58	28	11·300	10·911	10·825	10·454	10·383	10·028	58	28
59	29	10·947	10·555	10·499	10·125	10·082	9·723	59	29
60	30	10·594	10·199	10·173	9·795	9·780	9·417	60	30
61	31	10·242	9·844	9·847	9·465	9·477	9·111	61	31
62	32	9·891	9·489	9·521	9·136	9·173	8·803	62	32
63	33	9·543	9·137	9·196	8·807	8·870	8·495	63	33
64	34	9·196	8·787	8·872	8·479	8·567	8·188	64	34
65	35	8·853	8·439	8·551	8·153	8·266	7·882	65	35
66	36	8·513	8·095	8·232	7·829	7·966	7·577	66	36
67	37	8·177	7·754	7·916	7·507	7·669	7·274	67	37
68	38	7·846	7·418	7·603	7·190	7·373	6·974	68	38
69	39	7·519	7·086	7·295	6·876	7·081	6·676	69	39
70	40	7·197	6·759	6·990	6·566	6·793	6·382	70	40
71	41	6·882	6·439	6·690	6·261	6·508	6·091	71	41
72	42	6·572	6·124	6·396	5·961	6·228	5·806	72	42
73	43	6·269	5·816	6·107	5·667	5·952	5·525	73	43
74	44	5·972	5·515	5·824	5·379	5·682	5·249	74	44
75	45	5·683	5·221	5·548	5·098	5·417	4·979	75	45
76	46	5·401	4·935	5·277	4·824	5·158	4·716	76	46
77	47	5·127	4·657	5·014	4·556	4·905	4·458	77	47
78	48	4·861	4·387	4·758	4·296	4·659	4·208	78	48
79	49	4·603	4·127	4·510	4·044	4·419	3·964	79	49
80	50	4·354	3·874	4·269	3·800	4·187	3·728	80	50
81	51	4·112	3·631	4·035	3·564	3·961	3·500	81	51
82	52	3·879	3·397	3·810	3·337	3·742	3·279	82	52
83	53	3·655	3·171	3·592	3·118	3·531	3·067	83	53
84	54	3·439	2·955	3·382	2·908	3·328	2·862	84	54
85	55	3·232	2·749	3·181	2·707	3·131	2·666	85	55
86	56	3·033	2·552	2·987	2·514	2·943	2·478	86	56
87	57	2·842	2·363	2·801	2·330	2·761	2·298	87	57
88	58	2·659	2·184	2·623	2·155	2·587	2·127	88	58
89	59	2·485	2·014	2·452	1·989	2·420	1·964	89	59
90	60	2·318	1·853	2·289	1·831	2·261	1·809	90	60
91	61	2·159	1·701	2·133	1·681	2·108	1·662	91	61
92	62	2·008	1·557	1·985	1·540	1·962	1·523	92	62
93	63	1·864	1·421	1·844	1·406	1·823	1·392	93	63
94	64	1·727	1·294	1·709	1·281	1·691	1·268	94	64

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 30 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
95	65	1·597	1·174	1·581	1·163	1·565	1·152	95	65
96	66	1·474	1·062	1·459	1·052	1·445	1·043	96	66
97	67	1·356	·957	1·344	·948	1·331	·940	97	67
98	68	1·244	·858	1·233	·851	1·222	·844	98	68
99	69	1·136	·766	1·126	·760	1·117	·754	99	69
100	70	...	·677	...	·672	...	·667	100	70
101	71	...	·588	...	·584	...	·580	101	71
102	72	...	·487	...	·484	...	·481	102	72
103	73	...	·334	...	·332	...	·331	103	73

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 35 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
55	20	12·455	...	11·885	...	11·357	...	55	20
56	21	12·103	...	11·564	...	11·062	...	56	21
57	22	11·751	...	11·240	...	10·765	...	57	22
58	23	11·398	...	10·915	...	10·466	...	58	23
59	24	11·044	...	10·590	...	10·166	...	59	24
60	25	10·692	10·297	10·264	9·886	9·863	9·502	60	25
61	26	10·339	9·942	9·937	9·556	9·560	9·195	61	26
62	27	9·989	9·588	9·611	9·227	9·257	8·888	62	27
63	28	9·639	9·235	9·286	8·898	8·954	8·580	63	28
64	29	9·292	8·883	8·962	8·569	8·651	8·273	64	29
65	30	8·948	8·535	8·640	8·242	8·349	7·966	65	30
66	31	8·607	8·190	8·320	7·918	8·049	7·661	66	31
67	32	8·270	7·848	8·003	7·596	7·751	7·358	67	32
68	33	7·937	7·510	7·690	7·278	7·455	7·057	68	33
69	34	7·609	7·177	7·380	6·962	7·162	6·758	69	34
70	35	7·286	6·849	7·074	6·651	6·872	6·463	70	35
71	36	6·969	6·527	6·773	6·345	6·587	6·172	71	36
72	37	6·657	6·210	6·477	6·044	6·305	5·884	72	37
73	38	6·352	5·901	6·186	5·748	6·028	5·602	73	38
74	39	6·054	5·598	5·902	5·458	5·756	5·325	74	39
75	40	5·762	5·302	5·623	5·175	5·490	5·054	75	40
76	41	5·479	5·014	5·351	4·899	5·229	4·788	76	41
77	42	5·203	4·734	5·086	4·629	4·975	4·529	77	42
78	43	4·934	4·462	4·828	4·367	4·727	4·276	78	43
79	44	4·674	4·198	4·578	4·113	4·485	4·031	79	44
80	45	4·422	3·943	4·335	3·867	4·250	3·793	80	45
81	46	4·178	3·697	4·099	3·629	4·023	3·562	81	46
82	47	3·943	3·461	3·871	3·399	3·802	3·340	82	47
83	48	3·716	3·233	3·652	3·178	3·589	3·125	83	48
84	49	3·498	3·014	3·440	2·965	3·383	2·918	84	49
85	50	3·288	2·805	3·236	2·762	3·185	2·719	85	50
86	51	3·087	2·605	3·040	2·567	2·994	2·529	86	51
87	52	2·894	2·415	2·852	2·380	2·811	2·347	87	52
88	53	2·709	2·233	2·671	2·203	2·635	2·174	88	53
89	54	2·532	2·060	2·499	2·034	2·466	2·008	89	54
90	55	2·364	1·897	2·333	1·874	2·304	1·851	90	55
91	56	2·203	1·742	2·176	1·722	2·150	1·702	91	56
92	57	2·049	1·596	2·025	1·578	2·002	1·561	92	57
93	58	1·903	1·458	1·882	1·442	1·861	1·427	93	58
94	59	1·764	1·328	1·746	1·315	1·727	1·301	94	59
95	60	1·632	1·206	1·616	1·195	1·599	1·183	95	60
96	61	1·507	1·092	1·492	1·082	1·478	1·072	96	61
97	62	1·388	·985	1·375	·976	1·362	·968	97	62
98	63	1·274	·884	1·262	·877	1·251	·870	98	63
99	64	1·163	·790	1·153	·784	1·143	·777	99	64

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 35 YEARS.

Age.		$2\frac{1}{2}$%		3%		$3\frac{1}{2}$%		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
100	65	...	·699	...	·694	...	·688	100	65
101	66	...	·607	...	·603	...	·599	101	66
102	67	...	·501	...	·498	...	·495	102	67
103	68	...	·342	...	·341	...	·339	103	68

TWO MALES.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
DIFFERENCE IN AGE 40 YEARS.

Age.		2½%		3%		3½%		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
60	20	10·756	...	10·323	...	9·919	...	60	20
61	21	10·403	...	9·997	...	9·616	...	61	21
62	22	10·052	...	9·671	...	9·312	...	62	22
63	23	9·702	...	9·345	...	9·009	...	63	23
64	24	9·355	...	9·021	...	8·706	...	64	24
65	25	9·011	8·598	8·698	8·302	8·404	8·022	65	25
66	26	8·669	8·253	8·378	7·977	8·104	7·717	66	26
67	27	8·331	7·910	8·061	7·655	7·805	7·413	67	27
68	28	7·997	7·572	7·746	7·336	7·508	7·112	68	28
69	29	7·669	7·238	7·436	7·019	7·215	6·812	69	29
70	30	7·344	6·908	7·129	6·708	6·925	6·516	70	30
71	31	7·026	6·585	6·827	6·400	6·638	6·225	71	31
72	32	6·713	6·268	6·530	6·098	6·356	5·937	72	32
73	33	6·407	5·957	6·239	5·802	6·078	5·653	73	33
74	34	6·108	5·652	5·953	5·511	5·806	5·376	74	34
75	35	5·815	5·355	5·674	5·226	5·538	5·103	75	35
76	36	5·530	5·066	5·401	4·949	5·276	4·836	76	36
77	37	5·252	4·784	5·134	4·678	5·021	4·576	77	37
78	38	4·983	4·511	4·875	4·414	4·771	4·322	78	38
79	39	4·721	4·246	4·623	4·159	4·529	4·075	79	39
80	40	4·467	3·989	4·378	3·911	4·293	3·836	80	40
81	41	4·222	3·741	4·142	3·672	4·064	3·604	81	41
82	42	3·985	3·503	3·912	3·440	3·842	3·380	82	42
83	43	3·757	3·274	3·691	3·218	3·627	3·163	83	43
84	44	3·537	3·053	3·478	3·004	3·420	2·955	84	44
85	45	3·326	2·843	3·272	2·798	3·221	2·755	85	45
86	46	3·123	2·641	3·075	2·602	3·028	2·563	86	46
87	47	2·929	2·449	2·885	2·414	2·844	2·380	87	47
88	48	2·742	2·265	2·704	2·235	2·666	2·205	88	48
89	49	2·564	2·091	2·530	2·064	2·496	2·038	89	49
90	50	2·394	1·926	2·363	1·902	2·333	1·879	90	50
91	51	2·231	1·769	2·204	1·749	2·177	1·728	91	51
92	52	2·077	1·622	2·052	1·604	2·028	1·586	92	52
93	53	1·929	1·482	1·908	1·466	1·886	1·451	93	53
94	54	1·789	1·351	1·770	1·337	1·751	1·324	94	54
95	55	1·656	1·228	1·639	1·216	1·622	1·204	95	55
96	56	1·529	1·112	1·514	1·102	1·499	1·092	96	56
97	57	1·408	1·004	1·395	·995	1·382	·986	97	57
98	58	1·293	·902	1·281	·894	1·270	·887	98	58
99	59	1·181	·806	1·171	·799	1·161	·793	99	59
100	60	...	·713	...	·708	...	·703	100	60
101	61	...	·619	...	·615	...	·611	101	61
102	62	...	·511	...	·508	...	·505	102	62
103	63	...	·348	...	·346	...	·345	103	63

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 45 YEARS.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Male.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
65	20	9·052	...	8·737	...	8·440	...	65	20
66	21	8·709	...	8·416	...	8·139	...	66	21
67	22	8·371	...	8·098	...	7·840	...	67	22
68	23	8·037	...	7·784	...	7·544	...	68	23
69	24	7·707	...	7·473	...	7·250	...	69	24
70	25	7·383	6·948	7·166	6·745	6·959	6·552	70	25
71	26	7·063	6·624	6·863	6·437	6·672	6·259	71	26
72	27	6·750	6·305	6·565	6·134	6·389	5·971	72	27
73	28	6·443	5·993	6·273	5·837	6·111	5·687	73	28
74	29	6·143	5·688	5·987	5·545	5·838	5·408	74	29
75	30	5·850	5·390	5·707	5·260	5·570	5·135	75	30
76	31	5·563	5·100	5·433	4·981	5·307	4·868	76	31
77	32	5·285	4·817	5·166	4·710	5·051	4·606	77	32
78	33	5·014	4·543	4·905	4·446	4·801	4·352	78	33
79	34	4·752	4·277	4·653	4·189	4·557	4·104	79	34
80	35	4·497	4·019	4·407	3·940	4·321	3·864	80	35
81	36	4·251	3·770	4·170	3·700	4·091	3·631	81	36
82	37	4·013	3·531	3·939	3·467	3·868	3·406	82	37
83	38	3·784	3·300	3·717	3·244	3·653	3·189	83	38
84	39	3·563	3·079	3·503	3·029	3·445	2·980	84	39
85	40	3·350	2·867	3·297	2·822	3·244	2·779	85	40
86	41	3·147	2·665	3·098	2·625	3·051	2·586	86	41
87	42	2·951	2·471	2·908	2·436	2·865	2·401	87	42
88	43	2·764	2·287	2·725	2·256	2·687	2·225	88	43
89	44	2·585	2·111	2·550	2·084	2·516	2·057	89	44
90	45	2·414	1·945	2·382	1·921	2·352	1·898	90	45
91	46	2·250	1·788	2·223	1·767	2·195	1·746	91	46
92	47	2·095	1·639	2·070	1·620	2·046	1·602	92	47
93	48	1·947	1·498	1·925	1·482	1·903	1·467	93	48
94	49	1·805	1·366	1·786	1·352	1·767	1·339	94	49
95	50	1·671	1·242	1·654	1·230	1·637	1·218	95	50
96	51	1·544	1·125	1·528	1·115	1·514	1·105	96	51
97	52	1·422	1·016	1·409	1·007	1·396	·998	97	52
98	53	1·306	·913	1·294	·906	1·283	·898	98	53
99	54	1·193	·816	1·183	·810	1·173	·803	99	54
100	55	...	·723	...	·717	...	·712	100	55
101	56	...	·628	...	·623	...	·619	101	56
102	57	...	·517	...	·514	...	·511	102	57
103	58	...	·352	...	·350	...	·348	103	58

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 50 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
70	20	7·408	...	7·189	...	6·982	...	70	20
71	21	7·088	...	6·886	...	6·694	...	71	21
72	22	6·774	...	6·589	...	6·411	...	72	22
73	23	6·467	...	6·296	...	6·133	...	73	23
74	24	6·166	...	6·009	...	5·859	...	74	24
75	25	5·872	5·413	5·728	5·282	5·590	5·156	75	25
76	26	5·585	5·122	5·454	5·003	5·327	4·888	76	26
77	27	5·306	4·839	5·186	4·731	5·071	4·626	77	27
78	28	5·035	4·564	4·925	4·466	4·820	4·371	78	28
79	29	4·772	4·297	4·672	4·208	4·576	4·123	79	29
80	30	4·517	4·039	4·426	3·959	4·339	3·882	80	30
81	31	4·270	3·790	4·188	3·718	4·108	3·649	81	31
82	32	4·031	3·549	3·957	3·485	3·885	3·423	82	32
83	33	3·801	3·318	3·734	3·261	3·669	3·205	83	33
84	34	3·580	3·096	3·519	3·045	3·461	2·996	84	34
85	35	3·367	2·883	3·312	2·838	3·259	2·794	85	35
86	36	3·162	2·680	3·113	2·640	3·066	2·600	86	36
87	37	2·966	2·486	2·922	2·450	2·879	2·415	87	37
88	38	2·778	2·301	2·739	2·269	2·700	2·239	88	38
89	39	2·598	2·125	2·563	2·097	2·529	2·070	89	39
90	40	2·427	1·958	2·395	1·933	2·364	1·910	90	40
91	41	2·263	1·800	2·235	1·778	2·207	1·757	91	41
92	42	2·107	1·650	2·082	1·631	2·057	1·613	92	42
93	43	1·958	1·509	1·935	1·493	1·914	1·477	93	43
94	44	1·816	1·376	1·796	1·362	1·777	1·348	94	44
95	45	1·681	1·251	1·664	1·239	1·647	1·227	95	45
96	46	1·553	1·134	1·538	1·123	1·523	1·113	96	46
97	47	1·431	1·024	1·418	1·015	1·404	1·006	97	47
98	48	1·314	·921	1·302	·913	1·291	·905	98	48
99	49	1·201	·823	1·191	·816	1·180	·810	99	49
100	50	...	·729	...	·723	...	·718	100	50
101	51	...	·633	...	·629	...	·624	101	51
102	52	...	·522	...	·518	...	·515	102	52
103	53	...	·354	...	·352	...	·351	103	53

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 55 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
75	20	5·887	...	5·742	...	5·604	...	75	20
76	21	5·600	...	5·467	...	5·341	...	76	21
77	22	5·320	...	5·199	...	5·083	...	77	22
78	23	5·048	...	4·938	...	4·833	...	78	23
79	24	4·785	...	4·685	...	4·588	...	79	24
80	25	4·529	4·051	4·438	3·972	4·350	3·894	80	25
81	26	4·282	3·802	4·199	3·730	4·120	3·660	81	26
82	27	4·043	3·561	3·968	3·497	3·896	3·434	82	27
83	28	3·813	3·330	3·745	3·272	3·680	3·216	83	28
84	29	3·591	3·107	3·530	3·056	3·471	3·006	84	29
85	30	3·377	2·894	3·323	2·848	3·269	2·804	85	30
86	31	3·172	2·690	3·123	2·649	3·075	2·610	86	31
87	32	2·976	2·495	2·932	2·459	2·889	2·425	87	32
88	33	2·787	2·310	2·748	2·278	2·709	2·247	88	33
89	34	2·607	2·133	2·572	2·105	2·537	2·078	89	34
90	35	2·435	1·966	2·404	1·941	2·373	1·917	90	35
91	36	2·271	1·807	2·243	1·786	2·215	1·765	91	36
92	37	2·114	1·657	2·089	1·639	2·065	1·620	92	37
93	38	1·965	1·516	1·943	1·500	1·921	1·483	93	38
94	39	1·823	1·383	1·803	1·368	1·784	1·354	94	39
95	40	1·688	1·257	1·670	1·245	1·653	1·233	95	40
96	41	1·560	1·140	1·544	1·129	1·529	1·119	96	41
97	42	1·437	1·029	1·424	1·020	1·410	1·011	97	42
98	43	1·320	·926	1·308	·918	1·296	·910	98	43
99	44	1·206	·827	1·196	·821	1·185	·814	99	44
100	45	...	·733	...	·727	...	·722	100	45
101	46	...	·636	...	·632	...	·628	101	46
102	47	...	·524	...	·521	...	·518	102	47
103	48	...	·356	...	·354	...	·352	103	48

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 60 YEARS.

Age.		$2\frac{1}{2}$%		3%		$3\frac{1}{2}$%		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
80	20	4·537	...	4·446	...	4·358	...	80	20
81	21	4·290	...	4·207	...	4·127	...	81	21
82	22	4·051	...	3·976	...	3·903	...	82	22
83	23	3·820	...	3·752	...	3·687	...	83	23
84	24	3·598	...	3·537	...	3·478	...	84	24
85	25	3·384	2·901	3·329	2·855	3·276	2·810	85	25
86	26	3·179	2·696	3·129	2·656	3·082	2·616	86	26
87	27	2·982	2·502	2·938	2·466	2·894	2·430	87	27
88	28	2·793	2·316	2·754	2·284	2·715	2·253	88	28
89	29	2·613	2·139	2·578	2·111	2·543	2·084	89	29
90	30	2·441	1·971	2·409	1·947	2·378	1·923	90	30
91	31	2·276	1·812	2·248	1·791	2·220	1·770	91	31
92	32	2·119	1·662	2·094	1·643	2·069	1·625	92	32
93	33	1·970	1·520	1·947	1·504	1·925	1·488	93	33
94	34	1·828	1·387	1·808	1·373	1·788	1·359	94	34
95	35	1·692	1·261	1·675	1·249	1·657	1·237	95	35
96	36	1·564	1·143	1·548	1·133	1·533	1·122	96	36
97	37	1·441	1·033	1·427	1·024	1·414	1·015	97	37
98	38	1·323	·929	1·311	·921	1·300	·913	98	38
99	39	1·209	·830	1·199	·824	1·189	·817	99	39
100	40	...	·735	...	·730	...	·724	100	40
101	41	...	·639	...	·634	...	·630	101	41
102	42	...	·526	...	·523	...	·520	102	42
103	43	...	·357	...	·355	...	·353	103	43

TWO MALES.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
DIFFERENCE IN AGE 65 YEARS.

Age.		2½%		3%		3½%		Age.	
Male.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
85	20	3·389	...	3·333	...	3·280	...	85	20
86	21	3·183	...	3·134	...	3·086	...	86	21
87	22	2·986	...	2·942	...	2·898	...	87	22
88	23	2·797	...	2·758	...	2·719	...	88	23
89	24	2·617	...	2·581	...	2·546	...	89	24
90	25	2·444	1·975	2·412	1·950	2·381	1·926	90	25
91	26	2·279	1·816	2·251	1·794	2·223	1·773	91	26
92	27	2·122	1·665	2·097	1·646	2·072	1·628	92	27
93	28	1·973	1·523	1·950	1·507	1·928	1·491	93	28
94	29	1·830	1·390	1·811	1·375	1·791	1·361	94	29
95	30	1·695	1·264	1·677	1·251	1·660	1·239	95	30
96	31	1·566	1·146	1·551	1·135	1·535	1·125	96	31
97	32	1·443	1·035	1·430	1·026	1·416	1·017	97	32
98	33	1·326	·931	1·314	·923	1·302	·915	98	33
99	34	1·211	·832	1·201	·826	1·191	·819	99	34
100	35	...	·737	...	·732	...	·726	100	35
101	36	...	·640	...	·636	...	·631	101	36
102	37	...	·527	...	·524	...	·521	102	37
103	38	...	·357	...	·356	...	·354	103	38

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 70 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Male. y
90	20	2·447	...	2·415	...	2·384	...	90	20
91	21	2·282	...	2·253	...	2·225	...	91	21
92	22	2·125	...	2·099	...	2·075	...	92	22
93	23	1·975	...	1·952	...	1·930	...	93	23
94	24	1·832	...	1·812	...	1·793	...	94	24
95	25	1·697	1·266	1·679	1·253	1·662	1·241	95	25
96	26	1·568	1·147	1·552	1·137	1·537	1·126	96	26
97	27	1·445	1·036	1·431	1·027	1·418	1·018	97	27
98	28	1·327	·932	1·315	·924	1·303	·916	98	28
99	29	1·213	·834	1·202	·827	1·192	·820	99	29
100	30	...	·738	...	·733	...	·727	100	30
101	31	...	·641	...	·637	...	·632	101	31
102	32	...	·528	...	·525	...	·522	102	32
103	33	...	·358	...	·356	...	·354	103	33

TWO MALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 75 YEARS.

Age. Male. x	Age. Male. y	2½% At Date of Purchase. $a_{[xy]}$	2½% After Five Years from Purchase. a_{xy}	3% At Date of Purchase. $a_{[xy]}$	3% After Five Years from Purchase. a_{xy}	3½% At Date of Purchase. $a_{[xy]}$	3½% After Five Years from Purchase. a_{xy}	Age. Male. x	Age. Male. y
95	20	1·698	...	1·680	...	1·663	...	95	20
96	21	1·569	...	1·553	...	1·538	...	96	21
97	22	1·446	...	1·432	...	1·419	...	97	22
98	23	1·328	...	1·316	...	1·304	...	98	23
99	24	1·214	...	1·203	...	1·193	...	99	24
100	25	...	·739	...	·733	...	·728	100	25
101	26	...	·642	...	·637	...	·633	101	26
102	27	...	·528	...	·525	...	·522	102	27
103	28	...	·358	...	·356	...	·355	103	28

BRITISH OFFICES LIFE ANNUITY TABLES, 1893.

VALUES OF ANNUITIES ON TWO JOINT LIVES.

TWO FEMALES.

$2\frac{1}{2}$, 3, and $3\frac{1}{2}$ per cent.

SELECT AND ULTIMATE VALUES.

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 0 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female.	Female.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Female.	Female.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
20	20	20.797	...	19.192	...	17.782	...	20	20
21	21	20.586	...	19.013	...	17.633	...	21	21
22	22	20.365	...	18.829	...	17.477	...	22	22
23	23	20.141	...	18.641	...	17.317	...	23	23
24	24	19.909	...	18.444	...	17.150	...	24	24
25	25	19.673	19.292	18.243	17.891	16.979	16.653	25	25
26	26	19.429	19.046	18.036	17.682	16.802	16.473	26	26
27	27	19.181	18.795	17.824	17.467	16.620	16.288	27	27
28	28	18.928	18.538	17.607	17.246	16.433	16.097	28	28
29	29	18.672	18.277	17.386	17.020	16.242	15.902	29	29
30	30	18.410	18.011	17.161	16.790	16.047	15.701	30	30
31	31	18.144	17.741	16.931	16.556	15.847	15.498	31	31
32	32	17.876	17.467	16.698	16.318	15.644	15.289	32	32
33	33	17.605	17.192	16.463	16.078	15.438	15.079	33	33
34	34	17.331	16.912	16.224	15.833	15.229	14.864	34	34
35	35	17.056	16.630	15.983	15.585	15.018	14.646	35	35
36	36	16.778	16.347	15.739	15.337	14.803	14.426	36	36
37	37	16.499	16.061	15.494	15.084	14.587	14.203	37	37
38	38	16.218	15.775	15.247	14.832	14.369	13.979	38	38
39	39	15.937	15.487	14.999	14.577	14.149	13.753	39	39
40	40	15.655	15.199	14.750	14.322	13.928	13.526	40	40
41	41	15.373	14.910	14.500	14.065	13.706	13.296	41	41
42	42	15.090	14.621	14.250	13.808	13.482	13.067	42	42
43	43	14.808	14.331	13.998	13.549	13.259	12.835	43	43
44	44	14.524	14.043	13.745	13.290	13.033	12.603	44	44
45	45	14.241	13.752	13.492	13.031	12.806	12.370	45	45
46	46	13.956	13.463	13.237	12.771	12.577	12.135	46	46
47	47	13.670	13.172	12.981	12.509	12.347	11.900	47	47
48	48	13.384	12.880	12.724	12.246	12.115	11.662	48	48
49	49	13.095	12.587	12.462	11.981	11.879	11.421	49	49
50	50	12.803	12.293	12.198	11.714	11.640	11.179	50	50
51	51	12.509	11.996	11.932	11.444	11.398	10.934	51	51
52	52	12.209	11.694	11.660	11.170	11.151	10.684	52	52
53	53	11.906	11.390	11.384	10.893	10.899	10.430	53	53
54	54	11.597	11.081	11.101	10.610	10.640	10.170	54	54
55	55	11.281	10.767	10.813	10.321	10.376	9.905	55	55
56	56	10.959	10.447	10.516	10.027	10.103	9.634	56	56
57	57	10.630	10.121	10.213	9.726	9.823	9.355	57	57
58	58	10.293	9.788	9.903	9.417	9.535	9.069	58	58
59	59	9.950	9.449	9.584	9.102	9.239	8.776	59	59
60	60	9.601	9.103	9.259	8.780	8.936	8.475	60	60
61	61	9.246	8.751	8.927	8.451	8.626	8.167	61	61
62	62	8.885	8.395	8.589	8.116	8.309	7.853	62	62
63	63	8.522	8.034	8.248	7.777	7.988	7.533	63	63
64	64	8.156	7.670	7.903	7.434	7.663	7.210	64	64

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 0 YEARS.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Female. x	Female y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female x	Female. y
65	65	7·790	7·306	7·558	7·090	7·337	6·883	65	65
66	66	7·426	6·943	7·213	6·745	7·010	6·556	66	66
67	67	7·066	6·582	6·871	6·402	6·685	6·230	67	67
68	68	6·711	6·226	6·533	6·062	6·363	5·906	68	68
69	69	6·363	5·876	6·201	5·728	6·046	5·586	69	69
70	70	6·023	5·534	5·877	5·401	5·735	5·273	70	70
71	71	5·693	5·201	5·560	5·081	5·432	4·966	71	71
72	72	5·374	4·879	5·254	4·771	5·138	4·668	72	72
73	73	5·065	4·567	4·957	4·471	4·852	4·378	73	73
74	74	4·769	4·268	4·671	4·182	4·577	4·099	74	74
75	75	4·484	3·981	4·396	3·905	4·311	3·831	75	75
76	76	4·211	3·707	4·132	3·639	4·056	3·573	76	76
77	77	3·950	3·446	3·880	3·386	3·811	3·327	77	77
78	78	3·701	3·197	3·638	3·144	3·577	3·092	78	78
79	79	3·464	2·960	3·408	2·913	3·353	2·868	79	79
80	80	3·238	2·736	3·188	2·695	3·139	2·655	80	80
81	81	3·024	2·524	2·979	2·488	2·935	2·453	81	81
82	82	2·819	2·324	2·779	2·292	2·740	2·261	82	82
83	83	2·625	2·135	2·590	2·108	2·555	2·081	83	83
84	84	2·442	1·957	2·410	1·933	2·379	1·909	84	84
85	85	2·267	1·790	2·239	1·769	2·212	1·749	85	85
86	86	2·102	1·633	2·078	1·615	2·054	1·597	86	86
87	87	1·946	1·486	1·924	1·470	1·903	1·455	87	87
88	88	1·798	1·349	1·779	1·335	1·760	1·322	88	88
89	89	1·659	1·221	1·642	1·209	1·625	1·197	89	89
90	90	1·527	1·101	1·512	1·091	1·497	1·081	90	90
91	91	1·403	·991	1·390	·982	1·377	·973	91	91
92	92	1·286	·887	1·275	·880	1·264	·872	92	92
93	93	1·176	·792	1·166	·785	1·156	·779	93	93
94	94	1·073	·704	1·064	·698	1·055	·693	94	94
95	95	·975	·623	·967	·618	·959	·614	95	95
96	96	·887	·548	·880	·544	·873	·540	96	96
97	97	·800	·478	·794	·475	·788	·472	97	97
98	98	·724	·421	·719	·418	·714	·415	98	98
99	99	·649	·358	·644	·356	·640	·354	99	99
100	100	...	·322	...	·320	...	·318	100	100
101	101	...	·269	...	·267	...	·266	101	101
102	102	...	·196	...	·195	...	·194	102	102
103	103	...	·156	...	·155	...	·155	103	103

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 5 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
25	20	20·195	...	18·686	...	17·356	...	25	20
26	21	19·967	...	18·493	...	17·192	...	26	21
27	22	19·731	...	18·293	...	17·022	...	27	22
28	23	19·491	...	18·089	...	16·847	...	28	23
29	24	19·246	...	17·879	...	16·667	...	29	24
30	25	18·995	18·605	17·665	17·304	16·483	16·147	30	25
31	26	18·740	18·346	17·445	17·080	16·294	15·954	31	26
32	27	18·479	18·082	17·221	16·853	16·100	15·756	32	27
33	28	18·216	17·815	16·994	16·621	15·902	15·554	33	28
34	29	17·949	17·542	16·763	16·385	15·701	15·348	34	29
35	30	17·680	17·268	16·528	16·144	15·496	15·138	35	30
36	31	17·406	16·990	16·290	15·902	15·289	14·925	36	31
37	32	17·131	16·709	16·051	15·656	15·078	14·708	37	32
38	33	16·855	16·426	15·808	15·407	14·864	14·489	38	33
39	34	16·575	16·141	15·563	15·157	14·649	14·268	39	34
40	35	16·295	15·855	15·317	14·904	14·431	14·044	40	35
41	36	16·014	15·567	15·069	14·649	14·212	13·818	41	36
42	37	15·732	15·278	14·819	14·394	13·991	13·591	42	37
43	38	15·449	14·989	14·569	14·136	13·768	13·361	43	38
44	39	15·165	14·699	14·317	13·878	13·544	13·131	44	39
45	40	14·880	14·409	14·064	13·620	13·318	12·899	45	40
46	41	14·596	14·118	13·810	13·359	13·092	12·665	46	41
47	42	14·310	13·826	13·554	13·098	12·864	12·431	47	42
48	43	14·024	13·534	13·298	12·836	12·633	12·195	48	43
49	44	13·735	13·241	13·039	12·572	12·400	11·957	49	44
50	45	13·446	12·946	12·779	12·306	12·166	11·718	50	45
51	46	13·153	12·651	12·516	12·040	11·928	11·475	51	46
52	47	12·858	12·353	12·250	11·769	11·687	11·231	52	47
53	48	12·561	12·053	11·980	11·497	11·442	10·982	53	48
54	49	12·258	11·748	11·705	11·219	11·192	10·730	54	49
55	50	11·952	11·441	11·426	10·940	10·938	10·473	55	50
56	51	11·640	11·130	11·141	10·654	10·677	10·212	56	51
57	52	11·322	10·813	10·851	10·363	10·410	9·944	57	52
58	53	11·000	10·491	10·554	10·067	10·137	9·671	58	53
59	54	10·669	10·163	10·249	9·764	9·856	9·391	59	54
60	55	10·333	9·829	9·938	9·455	9·568	9·104	60	55
61	56	9·990	9·490	9·620	9·139	9·272	8·811	61	56
62	57	9·642	9·145	9·296	8·818	8·970	8·510	62	57
63	58	9·288	8·794	8·966	8·490	8·662	8·204	63	58
64	59	8·930	8·439	8·631	8·157	8·348	7·891	64	59
65	60	8·570	8·081	8·292	7·821	8·030	7·574	65	60
66	61	8·208	7·720	7·951	7·481	7·708	7·253	66	61
67	62	7·845	7·359	7·609	7·139	7·385	6·930	67	62
68	63	7·484	6·999	7·268	6·798	7·062	6·606	68	63
69	64	7·127	6·641	6·929	6·458	6·740	6·283	69	64

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 5 YEARS.

Age.		$2\frac{1}{2}$%		3%		$3\frac{1}{2}$%		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
70	65	6·774	6·287	6·593	6·121	6·421	5·962	70	65
71	66	6·428	5·940	6·263	5·789	6·105	5·644	71	66
72	67	6·090	5·599	5·940	5·463	5·796	5·332	72	67
73	68	5·760	5·267	5·624	5·144	5·494	5·026	73	68
74	69	5·440	4·945	5·317	4·834	5·199	4·728	74	69
75	70	5·131	4·633	5·020	4·534	4·913	4·439	75	70
76	71	4·833	4·332	4·733	4·244	4·637	4·159	76	71
77	72	4·546	4·044	4·457	3·965	4·370	3·890	77	72
78	73	4·271	3·768	4·191	3·698	4·113	3·630	78	73
79	74	4·009	3·504	3·936	3·442	3·866	3·382	79	74
80	75	3·757	3·252	3·692	3·197	3·630	3·144	80	75
81	76	3·517	3·013	3·460	2·965	3·404	2·918	81	76
82	77	3·289	2·787	3·237	2·744	3·187	2·703	82	77
83	78	3·072	2·572	3·026	2·534	2·981	2·498	83	78
84	79	2·865	2·369	2·824	2·336	2·784	2·304	84	79
85	80	2·669	2·177	2·632	2·149	2·597	2·121	85	80
86	81	2·483	1·997	2·450	1·972	2·419	1·948	86	81
87	82	2·306	1·827	2·278	1·806	2·250	1·784	87	82
88	83	2·139	1·668	2·114	1·649	2·089	1·631	88	83
89	84	1·981	1·519	1·959	1·503	1·937	1·487	89	84
90	85	1·831	1·379	1·811	1·365	1·792	1·351	90	85
91	86	1·690	1·249	1·673	1·237	1·656	1·225	91	86
92	87	1·557	1·128	1·541	1·117	1·526	1·107	92	87
93	88	1·430	1·015	1·417	1·006	1·404	·997	93	88
94	89	1·313	·910	1·301	·902	1·289	·895	94	89
95	90	1·200	·813	1·189	·806	1·179	·800	95	90
96	91	1·098	·723	1·088	·717	1·079	·712	96	91
97	92	·998	·639	·990	·635	·982	·630	97	92
98	93	·908	·567	·901	·563	·894	·559	98	93
99	94	·819	·493	·813	·490	·807	·486	99	94
100	95	...	·439	...	·436	...	·433	100	95
101	96	...	·373	...	·370	...	·368	101	96
102	97	...	·291	...	·290	...	·288	102	97
103	98	...	·220	...	·219	...	·218	103	98

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 10 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
30	20	19·436	...	18·043	...	16·808	...	30	20
31	21	19·192	...	17·834	...	16·629	...	31	21
32	22	18·942	...	17·621	...	16·446	...	32	22
33	23	18·689	...	17·403	...	16·258	...	33	23
34	24	18·431	...	17·181	...	16·066	...	34	24
35	25	18·169	17·767	16·955	16·581	15·870	15·521	35	25
36	26	17·904	17·497	16·725	16·346	15·670	15·317	36	26
37	27	17·634	17·223	16·491	16·108	15·466	15·108	37	27
38	28	17·363	16·947	16·254	15·866	15·259	14·896	38	28
39	29	17·088	16·666	16·015	15·621	15·049	14·680	39	29
40	30	16·811	16·384	15·773	15·373	14·836	14·462	40	30
41	31	16·533	16·099	15·528	15·123	14·620	14·240	41	31
42	32	16·252	15·813	15·281	14·870	14·403	14·016	42	32
43	33	15·969	15·525	15·032	14·615	14·182	13·791	43	33
44	34	15·685	15·235	14·781	14·358	13·960	13·562	44	34
45	35	15·400	14·943	14·528	14·099	13·736	13·331	45	35
46	36	15·113	14·651	14·273	13·839	13·509	13·098	46	36
47	37	14·824	14·357	14·017	13·577	13·279	12·864	47	37
48	38	14·535	14·062	13·758	13·313	13·048	12·627	48	38
49	39	14·243	13·765	13·497	13·046	12·814	12·387	49	39
50	40	13·949	13·467	13·234	12·779	12·577	12·146	50	40
51	41	13·653	13·167	12·969	12·508	12·338	11·902	51	41
52	42	13·354	12·864	12·699	12·235	12·096	11·655	52	42
53	43	13·052	12·559	12·427	11·959	11·849	11·405	53	43
54	44	12·746	12·252	12·150	11·679	11·597	11·150	54	44
55	45	12·437	11·940	11·869	11·396	11·343	10·892	55	45
56	46	12·124	11·626	11·583	11·109	11·082	10·629	56	46
57	47	11·805	11·307	11·292	10·817	10·816	10·362	57	47
58	48	11·482	10·983	10·996	10·520	10·544	10·089	58	48
59	49	11·153	10·655	10·694	10·218	10·266	9·811	59	49
60	50	10·819	10·322	10·387	9·911	9·982	9·527	60	50
61	51	10·480	9·984	10·073	9·598	9·693	9·237	61	51
62	52	10·136	9·642	9·755	9·281	9·397	8·941	62	52
63	53	9·789	9·296	9·432	8·958	9·096	8·641	63	53
64	54	9·437	8·946	9·104	8·631	8·790	8·335	64	54
65	55	9·083	8·593	8·773	8·301	8·480	8·025	65	55
66	56	8·728	8·238	8·439	7·968	8·167	7·712	66	56
67	57	8·371	7·882	8·104	7·633	7·852	7·396	67	57
68	58	8·016	7·527	7·769	7·297	7·536	7·078	68	58
69	59	7·662	7·172	7·435	6·961	7·219	6·761	69	59
70	60	7·311	6·821	7·103	6·628	6·904	6·444	70	60
71	61	6·964	6·473	6·773	6·297	6·591	6·129	71	61
72	62	6·623	6·130	6·448	5·970	6·282	5·817	72	62
73	63	6·288	5·793	6·129	5·649	5·977	5·509	73	63
74	64	5·960	5·464	5·816	5·333	5·677	5·207	74	64

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 10 YEARS.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
75	65	5·641	5·142	5·510	5·024	5·384	4·911	75	65
76	66	5·330	4·830	5·212	4·724	5·097	4·622	76	66
77	67	5·029	4·528	4·922	4·433	4·819	4·341	77	67
78	68	4·739	4·235	4·642	4·150	4·549	4·068	78	68
79	69	4·459	3·954	4·372	3·878	4·288	3·805	79	69
80	70	4·190	3·684	4·112	3·617	4·036	3·552	80	70
81	71	3·932	3·426	3·862	3·366	3·794	3·308	81	71
82	72	3·685	3·180	3·622	3·127	3·562	3·076	82	72
83	73	3·449	2·945	3·393	2·899	3·339	2·854	83	73
84	74	3·225	2·722	3·175	2·682	3·126	2·642	84	74
85	75	3·010	2·512	2·966	2·476	2·923	2·441	85	75
86	76	2·807	2·312	2·768	2·280	2·729	2·250	86	76
87	77	2·614	2·124	2·579	2·096	2·544	2·070	87	77
88	78	2·430	1·947	2·399	1·923	2·369	1·899	88	78
89	79	2·257	1·780	2·229	1·759	2·202	1·739	89	79
90	80	2·092	1·624	2·067	1·606	2·043	1·588	90	80
91	81	1·937	1·478	1·915	1·462	1·894	1·447	91	81
92	82	1·790	1·341	1·770	1·327	1·752	1·314	92	82
93	83	1·650	1·213	1·633	1·201	1·617	1·190	93	83
94	84	1·520	1·094	1·505	1·084	1·490	1·074	94	84
95	85	1·395	·984	1·382	·975	1·369	·967	95	85
96	86	1·282	·880	1·270	·873	1·259	·866	96	86
97	87	1·170	·785	1·160	·778	1·151	·772	97	87
98	88	1·070	·701	1·062	·695	1·053	·690	98	88
99	89	·968	·615	·961	·611	·953	·606	99	89
100	90	...	·551	...	·547	...	·543	100	90
101	91	...	·470	...	·467	...	·464	101	91
102	92	...	·368	...	·365	...	·363	102	92
103	93	...	·269	...	·268	...	·267	103	93

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 15 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
35	20	18·532	...	17·269	...	16·144	...	35	20
36	21	18·276	...	17·048	...	15·952	...	36	21
37	22	18·014	...	16·823	...	15·757	...	37	22
38	23	17·751	...	16·594	...	15·558	...	38	23
39	24	17·482	...	16·361	...	15·355	...	39	24
40	25	17·211	16·794	16·125	15·735	15·148	14·783	40	25
41	26	16·938	16·515	15·886	15·491	14·938	14·568	41	26
42	27	16·661	16·233	15·643	15·244	14·725	14·350	42	27
43	28	16·382	15·949	15·399	14·993	14·509	14·129	43	28
44	29	16·099	15·662	15·150	14·740	14·290	13·905	44	29
45	30	15·815	15·372	14·900	14·483	14·069	13·677	45	30
46	31	15·528	15·080	14·646	14·225	13·843	13·447	46	31
47	32	15·238	14·786	14·389	13·963	13·615	13·213	47	32
48	33	14·948	14·490	14·130	13·699	13·384	12·978	48	33
49	34	14·652	14·191	13·867	13·431	13·150	12·738	49	34
50	35	14·355	13·889	13·602	13·161	12·912	12·495	50	35
51	36	14·055	13·585	13·333	12·889	12·670	12·249	51	36
52	37	13·750	13·277	13·060	12·612	12·424	11·999	52	37
53	38	13·443	12·967	12·782	12·332	12·174	11·746	53	38
54	39	13·130	12·653	12·501	12·047	11·919	11·487	54	39
55	40	12·814	12·335	12·213	11·758	11·658	11·225	55	40
56	41	12·493	12·012	11·922	11·465	11·393	10·957	56	41
57	42	12·167	11·686	11·625	11·167	11·122	10·684	57	42
58	43	11·836	11·355	11·323	10·863	10·845	10·406	58	43
59	44	11·501	11·019	11·015	10·555	10·562	10·122	59	44
60	45	11·160	10·678	10·702	10·241	10·274	9·833	60	45
61	46	10·815	10·334	10·383	9·923	9·980	9·538	61	46
62	47	10·466	9·986	10·061	9·600	9·680	9·238	62	47
63	48	10·115	9·633	9·735	9·273	9·377	8·934	63	48
64	49	9·761	9·279	9·405	8·942	9·070	8·625	64	49
65	50	9·404	8·923	9·072	8·609	8·760	8·314	65	50
66	51	9·048	8·566	8·739	8·275	8·447	8·000	66	51
67	52	8·692	8·209	8·405	7·939	8·134	7·684	67	52
68	53	8·338	7·853	8·072	7·604	7·820	7·368	68	53
69	54	7·986	7·499	7·741	7·270	7·507	7·052	69	54
70	55	7·638	7·149	7·412	6·939	7·196	6·738	70	55
71	56	7·294	6·803	7·086	6·610	6·887	6·426	71	56
72	57	6·956	6·462	6·765	6·286	6·583	6·118	72	57
73	58	6·624	6·127	6·449	5·967	6·281	5·813	73	58
74	59	6·298	5·799	6·137	5·653	5·984	5·513	74	59
75	60	5·979	5·478	5·833	5·346	5·693	5·219	75	60
76	61	5·668	5·165	5·535	5·045	5·408	4·930	76	61
77	62	5·365	4·860	5·245	4·753	5·129	4·649	77	62
78	63	5·071	4·564	4·962	4·467	4·857	4·374	78	63
79	64	4·785	4·278	4·687	4·191	4·592	4·107	79	64

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 15 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
80	65	4·509	4·001	4·420	3·924	4·335	3·849	80	65
81	66	4·243	3·734	4·163	3·665	4·086	3·599	81	66
82	67	3·986	3·478	3·914	3·417	3·845	3·358	82	67
83	68	3·740	3·233	3·676	3·178	3·613	3·126	83	68
84	69	3·504	2·998	3·447	2·950	3·391	2·903	84	69
85	70	3·278	2·775	3·227	2·732	3·177	2·691	85	70
86	71	3·063	2·562	3·017	2·525	2·972	2·489	86	71
87	72	2·858	2·361	2·817	2·328	2·777	2·297	87	72
88	73	2·662	2·170	2·626	2·142	2·590	2·114	88	73
89	74	2·477	1·991	2·444	1·966	2·413	1·942	89	74
90	75	2·300	1·822	2·271	1·800	2·243	1·779	90	75
91	76	2·134	1·663	2·108	1·645	2·084	1·626	91	76
92	77	1·976	1·514	1·954	1·498	1·932	1·482	92	77
93	78	1·826	1·375	1·806	1·361	1·787	1·347	93	78
94	79	1·686	1·245	1·669	1·233	1·651	1·221	94	79
95	80	1·551	1·124	1·536	1·113	1·521	1·103	95	80
96	81	1·429	1·010	1·416	1·001	1·403	·993	96	81
97	82	1·309	·905	1·297	·897	1·286	·890	97	82
98	83	1·201	·812	1·191	·805	1·180	·799	98	83
99	84	1·088	·716	1·079	·711	1·070	·706	99	84
100	85	...	·644	...	·639	...	·634	100	85
101	86	...	·549	...	·545	...	·542	101	86
102	87	...	·428	...	·426	...	·423	102	87
103	88	...	·308	...	·306	...	·305	103	88

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 20 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
40	20	17·504	...	16·382	...	15·374	...	40	20
41	21	17·237	...	16·150	...	15·171	...	41	21
42	22	16·966	...	15·914	...	14·965	...	42	22
43	23	16·693	...	15·675	...	14·755	...	43	23
44	24	16·415	...	15·432	...	14·542	...	44	24
45	25	16·135	15·701	15·186	14·779	14·325	13·942	45	25
46	26	15·851	15·413	14·935	14·524	14·104	13·717	46	26
47	27	15·564	15·122	14·681	14·267	13·879	13·487	47	27
48	28	15·274	14·828	14·424	14·004	13·650	13·254	48	28
49	29	14·979	14·529	14·162	13·739	13·417	13·016	49	29
50	30	14·681	14·228	13·897	13·469	13·179	12·776	50	30
51	31	14·379	13·923	13·627	13·196	12·938	12·530	51	31
52	32	14·071	13·613	13·352	12·918	12·690	12·280	52	32
53	33	13·760	13·299	13·072	12·636	12·439	12·025	53	33
54	34	13·443	12·981	12·786	12·348	12·181	11·764	54	34
55	35	13·121	12·657	12·496	12·055	11·917	11·499	55	35
56	36	12·794	12·329	12·198	11·757	11·647	11·227	56	36
57	37	12·461	11·996	11·895	11·453	11·371	10·949	57	37
58	38	12·122	11·657	11·586	11·143	11·088	10·665	58	38
59	39	11·777	11·313	11·270	10·827	10·799	10·375	59	39
60	40	11·428	10·964	10·950	10·506	10·504	10·080	60	40
61	41	11·074	10·609	10·624	10·179	10·203	9·777	61	41
62	42	10·716	10·253	10·293	9·848	9·897	9·470	62	42
63	43	10·355	9·890	9·959	9·513	9·586	9·158	63	43
64	44	9·992	9·527	9·621	9·174	9·272	8·842	64	44
65	45	9·628	9·161	9·282	8·833	8·955	8·523	65	45
66	46	9·264	8·796	8·941	8·490	8·637	8·203	66	46
67	47	8·901	8·431	8·601	8·148	8·318	7·881	67	47
68	48	8·542	8·068	8·263	7·806	8·000	7·559	68	48
69	49	8·185	7·708	7·927	7·467	7·683	7·238	69	49
70	50	7·833	7·353	7·595	7·131	7·369	6·920	70	50
71	51	7·487	7·003	7·268	6·799	7·059	6·605	71	51
72	52	7·147	6·659	6·946	6·473	6·754	6·295	72	52
73	53	6·814	6·322	6·630	6·152	6·453	5·989	73	53
74	54	6·489	5·993	6·319	5·837	6·157	5·689	74	54
75	55	6·171	5·671	6·016	5·530	5·868	5·395	75	55
76	56	5·861	5·358	5·720	5·230	5·584	5·108	76	56
77	57	5·560	5·054	5·431	4·939	5·307	4·828	77	57
78	58	5·267	4·759	5·150	4·654	5·037	4·554	78	58
79	59	4·983	4·473	4·876	4·379	4·774	4·288	79	59
80	60	4·707	4·196	4·611	4·111	4·518	4·030	80	60
81	61	4·440	3·928	4·354	3·853	4·270	3·780	81	61
82	62	4·182	3·670	4·104	3·603	4·029	3·538	82	62
83	63	3·934	3·422	3·864	3·363	3·795	3·305	83	63
84	64	3·694	3·184	3·631	3·131	3·570	3·080	84	64

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 20 YEARS.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
85	65	3·464	2·956	3·408	2·909	3·353	2·864	85	65
86	66	3·244	2·738	3·193	2·697	3·144	2·656	86	66
87	67	3·033	2·531	2·987	2·494	2·943	2·459	87	67
88	68	2·830	2·333	2·790	2·301	2·751	2·270	88	68
89	69	2·638	2·146	2·602	2·118	2·568	2·091	89	69
90	70	2·454	1·969	2·422	1·945	2·391	1·921	90	70
91	71	2·281	1·803	2·252	1·782	2·225	1·761	91	71
92	72	2·116	1·646	2·091	1·627	2·066	1·609	92	72
93	73	1·958	1·498	1·936	1·482	1·915	1·466	93	73
94	74	1·811	1·360	1·792	1·346	1·772	1·333	94	74
95	75	1·669	1·231	1·652	1·219	1·635	1·207	95	75
96	76	1·541	1·110	1·526	1·100	1·511	1·090	96	76
97	77	1·414	·997	1·400	·988	1·387	·980	97	77
98	78	1·299	·897	1·287	·890	1·276	·883	98	78
99	79	1·177	·794	1·167	·788	1·157	·782	99	79
100	80	...	·714	...	·709	...	·704	100	80
101	81	...	·609	...	·605	...	·601	101	81
102	82	...	·473	...	·470	...	·468	102	82
103	83	...	·336	...	·334	...	·332	103	83

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 25 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
45	20	16·366	...	15·391	...	14·507	...	45	20
46	21	16·088	...	15·146	...	14·292	...	46	21
47	22	15·804	...	14·897	...	14·072	...	47	22
48	23	15·519	...	14·645	...	13·848	...	48	23
49	24	15·227	...	14·386	...	13·619	...	49	24
50	25	14·931	14·487	14·123	13·705	13·384	12·989	50	25
51	26	14·630	14·184	13·855	13·434	13·146	12·747	51	26
52	27	14·324	13·876	13·581	13·158	12·899	12·499	52	27
53	28	14·012	13·563	13·301	12·876	12·648	12·245	53	28
54	29	13·694	13·243	13·015	12·588	12·391	11·986	54	29
55	30	13·369	12·918	12·723	12·295	12·127	11·719	55	30
56	31	13·039	12·588	12·423	11·994	11·855	11·446	56	31
57	32	12·701	12·250	12·117	11·688	11·576	11·167	57	32
58	33	12·357	11·906	11·804	11·374	11·290	10·880	58	33
59	34	12·007	11·557	11·483	11·054	10·996	10·586	59	34
60	35	11·652	11·202	11·157	10·728	10·696	10·286	60	35
61	36	11·291	10·841	10·825	10·395	10·390	9·979	61	36
62	37	10·924	10·475	10·487	10·057	10·077	9·665	62	37
63	38	10·555	10·105	10·145	9·714	9·760	9·347	63	38
64	39	10·183	9·733	9·799	9·367	9·439	9·024	64	39
65	40	9·810	9·358	9·452	9·018	9·115	8·698	65	40
66	41	9·437	8·983	9·103	8·667	8·789	8·369	66	41
67	42	9·065	8·609	8·755	8·316	8·463	8·039	67	42
68	43	8·696	8·236	8·409	7·965	8·137	7·709	68	43
69	44	8·331	7·868	8·066	7·618	7·814	7·382	69	44
70	45	7·972	7·504	7·727	7·274	7·494	7·056	70	45
71	46	7·619	7·146	7·392	6·935	7·177	6·734	71	46
72	47	7·272	6·795	7·064	6·602	6·866	6·418	72	47
73	48	6·934	6·451	6·743	6·275	6·561	6·106	73	48
74	49	6·604	6·116	6·429	5·955	6·261	5·801	74	49
75	50	6·282	5·789	6·122	5·643	5·969	5·503	75	50
76	51	5·970	5·473	5·824	5·340	5·683	5·213	76	51
77	52	5·666	5·165	5·533	5·045	5·405	4·930	77	52
78	53	5·372	4·867	5·251	4·759	5·134	4·654	78	53
79	54	5·088	4·580	4·977	4·482	4·871	4·387	79	54
80	55	4·812	4·302	4·712	4·214	4·616	4·129	80	55
81	56	4·546	4·034	4·455	3·955	4·368	3·879	81	56
82	57	4·289	3·776	4·207	3·705	4·128	3·637	82	57
83	58	4·041	3·528	3·967	3·465	3·896	3·404	83	58
84	59	3·802	3·289	3·736	3·233	3·671	3·179	84	59
85	60	3·572	3·061	3·512	3·011	3·454	2·963	85	60
86	61	3·352	2·842	3·298	2·798	3·246	2·755	86	61
87	62	3·140	2·634	3·092	2·595	3·045	2·557	87	62
88	63	2·936	2·435	2·894	2·401	2·852	2·367	88	63
89	64	2·742	2·246	2·704	2·216	2·667	2·186	89	64

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 25 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
90	65	2·556	2·066	2·522	2·039	2·489	2·014	90	65
91	66	2·379	1·896	2·349	1·873	2·320	1·851	91	66
92	67	2·211	1·735	2·184	1·715	2·158	1·695	92	67
93	68	2·050	1·583	2·026	1·566	2·003	1·549	93	68
94	69	1·899	1·441	1·878	1·426	1·857	1·411	94	69
95	70	1·753	1·307	1·734	1·294	1·716	1·282	95	70
96	71	1·620	1·182	1·604	1·170	1·588	1·159	96	71
97	72	1·489	1·064	1·474	1·054	1·460	1·045	97	72
98	73	1·369	·959	1·357	·951	1·344	·943	98	73
99	74	1·241	·850	1·230	·844	1·220	·837	99	74
100	75	...	·766	...	·760	...	·754	100	75
101	76	...	·652	...	·647	...	·643	101	76
102	77	...	·505	...	·502	...	·499	102	77
103	78	...	·355	...	·353	...	·352	103	78

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 30 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
50	20	15·108	...	14·282	...	13·528	...	50	20
51	21	14·812	...	14·018	...	13·293	...	51	21
52	22	14·507	...	13·747	...	13·051	...	52	22
53	23	14·199	...	13·471	...	12·803	...	53	23
54	24	13·882	...	13·187	...	12·547	...	54	24
55	25	13·559	13·116	12·896	12·476	12·285	11·885	55	25
56	26	13·228	12·786	12·597	12·177	12·013	11·615	56	26
57	27	12·890	12·449	12·290	11·871	11·734	11·336	57	27
58	28	12·544	12·104	11·976	11·557	11·449	11·049	58	28
59	29	12·192	11·753	11·654	11·235	11·154	10·754	59	29
60	30	11·833	11·394	11·325	10·907	10·852	10·453	60	30
61	31	11·468	11·030	10·990	10·571	10·543	10·143	61	31
62	32	11·097	10·660	10·647	10·229	10·227	9·827	62	32
63	33	10·722	10·284	10·301	9·882	9·906	9·505	63	33
64	34	10·344	9·906	9·950	9·530	9·580	9·177	64	34
65	35	9·964	9·525	9·596	9·175	9·251	8·846	65	35
66	36	9·584	9·143	9·242	8·818	8·919	8·512	66	36
67	37	9·205	8·762	8·887	8·460	8·587	8·176	67	37
68	38	8·829	8·382	8·534	8·103	8·255	7·840	68	38
69	39	8·456	8·005	8·184	7·748	7·926	7·505	69	39
70	40	8·089	7·633	7·837	7·397	7·599	7·173	70	40
71	41	7·728	7·267	7·496	7·050	7·276	6·844	71	41
72	42	7·375	6·908	7·161	6·710	6·959	6·521	72	42
73	43	7·029	6·557	6·834	6·376	6·647	6·203	73	43
74	44	6·692	6·214	6·513	6·049	6·342	5·892	74	44
75	45	6·365	5·881	6·201	5·731	6·044	5·588	75	45
76	46	6·046	5·558	5·897	5·422	5·753	5·291	76	46
77	47	5·738	5·245	5·601	5·121	5·471	5·003	77	47
78	48	5·440	4·942	5·315	4·830	5·196	4·723	78	48
79	49	5·151	4·649	5·038	4·549	4·930	4·452	79	49
80	50	4·872	4·367	4·770	4·277	4·672	4·190	80	50
81	51	4·604	4·096	4·511	4·015	4·422	3·937	81	51
82	52	4·345	3·836	4·261	3·763	4·180	3·693	82	52
83	53	4·096	3·586	4·021	3·521	3·947	3·458	83	53
84	54	3·857	3·346	3·789	3·288	3·723	3·232	84	54
85	55	3·627	3·116	3·565	3·065	3·506	3·015	85	55
86	56	3·406	2·897	3·351	2·851	3·298	2·807	86	56
87	57	3·195	2·688	3·145	2·647	3·097	2·608	87	57
88	58	2·992	2·488	2·947	2·453	2·904	2·418	88	58
89	59	2·798	2·299	2·758	2·268	2·720	2·237	89	59
90	60	2·612	2·119	2·577	2·091	2·542	2·064	90	60
91	61	2·435	1·949	2·404	1·925	2·373	1·901	91	61
92	62	2·267	1·787	2·239	1·766	2·211	1·745	92	62
93	63	2·105	1·634	2·080	1·616	2·056	1·598	93	63
94	64	1·953	1·490	1·931	1·474	1·909	1·459	94	64

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 30 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
95	65	1·806	1·355	1·786	1·341	1·767	1·328	95	65
96	66	1·672	1·227	1·654	1·216	1·637	1·204	96	66
97	67	1·538	1·107	1·522	1·097	1·508	1·087	97	67
98	68	1·416	1·000	1·403	·992	1·390	·983	98	68
99	69	1·284	·888	1·273	·881	1·262	·874	99	69
100	70	...	·800	...	·794	...	·788	100	70
101	71	...	·681	...	·676	...	·672	101	71
102	72	...	·527	...	·524	...	·521	102	72
103	73	...	·368	...	·366	...	·364	103	73

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 35 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
55	20	13·689	...	13·014	...	12·391	...	55	20
56	21	13·360	...	12·717	...	12·124	...	56	21
57	22	13·024	...	12·413	...	11·848	...	57	22
58	23	12·680	...	12·100	...	11·563	...	58	23
59	24	12·327	...	11·779	...	11·269	...	59	24
60	25	11·968	11·538	11·450	11·040	10·968	10·576	60	25
61	26	11·602	11·173	11·113	10·704	10·658	10·267	61	26
62	27	11·229	10·802	10·771	10·362	10·342	9·950	62	27
63	28	10·852	10·425	10·422	10·013	10·019	9·627	63	28
64	29	10·472	10·044	10·069	9·659	9·692	9·298	64	29
65	30	10·088	9·659	9·713	9·301	9·360	8·964	65	30
66	31	9·704	9·274	9·355	8·941	9·025	8·627	66	31
67	32	9·321	8·888	8·996	8·579	8·690	8·288	67	32
68	33	8·940	8·503	8·639	8·218	8·354	7·949	68	33
69	34	8·562	8·121	8·284	7·859	8·020	7·610	69	34
70	35	8·190	7·744	7·933	7·502	7·689	7·273	70	35
71	36	7·823	7·372	7·587	7·151	7·362	6·940	71	36
72	37	7·464	7·007	7·247	6·805	7·040	6·612	72	37
73	38	7·113	6·650	6·913	6·465	6·723	6·288	73	38
74	39	6·770	6·301	6·587	6·133	6·413	5·972	74	39
75	40	6·437	5·962	6·270	5·809	6·110	5·662	75	40
76	41	6·113	5·633	5·961	5·494	5·815	5·361	76	41
77	42	5·800	5·314	5·661	5·188	5·527	5·067	77	42
78	43	5·496	5·005	5·370	4·892	5·248	4·782	78	43
79	44	5·203	4·708	5·088	4·605	4·977	4·507	79	44
80	45	4·920	4·421	4·816	4·329	4·715	4·240	80	45
81	46	4·647	4·145	4·553	4·063	4·462	3·983	81	46
82	47	4·385	3·880	4·299	3·806	4·217	3·735	82	47
83	48	4·133	3·627	4·056	3·560	3·982	3·497	83	48
84	49	3·891	3·383	3·822	3·324	3·755	3·267	84	49
85	50	3·658	3·151	3·596	3·099	3·536	3·048	85	50
86	51	3·436	2·930	3·380	2·883	3·326	2·838	86	51
87	52	3·224	2·718	3·173	2·677	3·124	2·637	87	52
88	53	3·020	2·518	2·975	2·481	2·931	2·446	88	53
89	54	2·825	2·327	2·785	2·295	2·746	2·264	89	54
90	55	2·639	2·146	2·603	2·118	2·568	2·090	90	55
91	56	2·463	1·975	2·431	1·951	2·399	1·927	91	56
92	57	2·294	1·813	2·265	1·791	2·238	1·770	92	57
93	58	2·133	1·660	2·107	1·641	2·082	1·623	93	58
94	59	1·980	1·516	1·958	1·500	1·936	1·484	94	59
95	60	1·833	1·380	1·813	1·366	1·794	1·352	95	60
96	61	1·699	1·252	1·682	1·240	1·664	1·228	96	61
97	62	1·565	1·132	1·549	1·121	1·534	1·111	97	62
98	63	1·443	1·024	1·429	1·015	1·416	1·006	98	63
99	64	1·309	·911	1·298	·903	1·286	·896	99	64

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 35 YEARS.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
100	65	...	·821	...	·815	...	·809	100	65
101	66	...	·699	...	·694	...	·689	101	66
102	67	...	·540	...	·537	...	·534	102	67
103	68	...	·376	...	·374	...	·372	103	68

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 40 YEARS.

Age.		$2\frac{1}{2}\%$		3%		$3\frac{1}{2}\%$		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
60	20	12.057	...	11.532	...	11.043	...	60	20
61	21	11.692	...	11.197	...	10.735	...	61	21
62	22	11.320	...	10.855	...	10.420	...	62	22
63	23	10.944	...	10.507	...	10.098	...	63	23
64	24	10.562	...	10.154	...	9.770	...	64	24
65	25	10.178	9.757	9.797	9.393	9.438	9.050	65	25
66	26	9.793	9.370	9.438	9.032	9.103	8.713	66	26
67	27	9.408	8.983	9.078	8.669	8.767	8.373	67	27
68	28	9.025	8.596	8.719	8.306	8.430	8.031	68	28
69	29	8.645	8.212	8.362	7.944	8.094	7.691	69	29
70	30	8.270	7.832	8.008	7.586	7.761	7.352	70	30
71	31	7.900	7.457	7.659	7.231	7.431	7.016	71	31
72	32	7.537	7.088	7.316	6.882	7.105	6.685	72	32
73	33	7.182	6.727	6.979	6.539	6.786	6.359	73	33
74	34	6.836	6.375	6.650	6.203	6.473	6.039	74	34
75	35	6.499	6.031	6.329	5.875	6.167	5.726	75	35
76	36	6.171	5.698	6.016	5.557	5.868	5.421	76	36
77	37	5.853	5.375	5.712	5.247	5.577	5.124	77	37
78	38	5.546	5.062	5.418	4.946	5.294	4.835	78	38
79	39	5.249	4.760	5.132	4.656	5.020	4.556	79	39
80	40	4.962	4.469	4.856	4.376	4.755	4.285	80	40
81	41	4.686	4.190	4.590	4.105	4.498	4.024	81	41
82	42	4.420	3.921	4.334	3.846	4.250	3.773	82	42
83	43	4.165	3.663	4.087	3.596	4.012	3.531	83	43
84	44	3.920	3.417	3.850	3.357	3.782	3.299	84	44
85	45	3.685	3.181	3.621	3.128	3.560	3.077	85	45
86	46	3.460	2.957	3.403	2.909	3.348	2.864	86	46
87	47	3.245	2.743	3.194	2.701	3.145	2.661	87	47
88	48	3.039	2.540	2.993	2.503	2.949	2.467	88	48
89	49	2.843	2.347	2.802	2.315	2.763	2.283	89	49
90	50	2.655	2.164	2.619	2.135	2.584	2.108	90	50
91	51	2.478	1.992	2.445	1.967	2.414	1.943	91	51
92	52	2.308	1.828	2.279	1.806	2.251	1.785	92	52
93	53	2.146	1.674	2.121	1.655	2.095	1.637	93	53
94	54	1.994	1.529	1.971	1.513	1.949	1.497	94	54
95	55	1.846	1.393	1.826	1.379	1.807	1.365	95	55
96	56	1.712	1.265	1.694	1.252	1.677	1.240	96	56
97	57	1.578	1.144	1.562	1.133	1.547	1.122	97	57
98	58	1.456	1.036	1.442	1.026	1.429	1.017	98	58
99	59	1.321	.922	1.310	.914	1.298	.907	99	59
100	60	...	.832	...	.825	...	.819	100	60
101	61	...	.708	...	.703	...	.698	101	61
102	62	...	.548	...	.544	...	.541	102	62
103	63	...	.380	...	.378	...	.377	103	63

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 45 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female.	Female.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Female.	Female.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
65	20	10·235	...	9·849	...	9·487	...	65	20
66	21	9·851	...	9·491	...	9·153	...	66	21
67	22	9·465	...	9·131	...	8·816	...	67	22
68	23	9·082	...	8·772	...	8·480	...	68	23
69	24	8·701	...	8·415	...	8·144	...	69	24
70	25	8·325	7·893	8·061	7·644	7·810	7·407	70	25
71	26	7·954	7·517	7·711	7·288	7·479	7·071	71	26
72	27	7·590	7·148	7·366	6·938	7·154	6·739	72	27
73	28	7·234	6·785	7·028	6·593	6·833	6·411	73	28
74	29	6·886	6·430	6·698	6·256	6·518	6·090	74	29
75	30	6·547	6·085	6·374	5·927	6·210	5·775	75	30
76	31	6·217	5·749	6·060	5·606	5·909	5·468	76	31
77	32	5·897	5·424	5·754	5·294	5·617	5·169	77	32
78	33	5·587	5·108	5·457	4·991	5·332	4·878	78	33
79	34	5·287	4·804	5·169	4·698	5·056	4·596	79	34
80	35	4·998	4·510	4·891	4·415	4·788	4·323	80	35
81	36	4·719	4·228	4·623	4·142	4·529	4·060	81	36
82	37	4·451	3·956	4·364	3·880	4·279	3·806	82	37
83	38	4·193	3·696	4·114	3·628	4·038	3·562	83	38
84	39	3·946	3·447	3·875	3·386	3·806	3·327	84	39
85	40	3·708	3·209	3·644	3·155	3·583	3·103	85	40
86	41	3·481	2·981	3·424	2·934	3·368	2·887	86	41
87	42	3·264	2·765	3·213	2·723	3·163	2·682	87	42
88	43	3·056	2·560	3·010	2·522	2·966	2·486	88	43
89	44	2·858	2·365	2·817	2·332	2·777	2·300	89	44
90	45	2·669	2·180	2·632	2·151	2·597	2·123	90	45
91	46	2·490	2·006	2·457	1·981	2·425	1·956	91	46
92	47	2·319	1·841	2·290	1·819	2·262	1·797	92	47
93	48	2·156	1·685	2·130	1·666	2·105	1·647	93	48
94	49	2·003	1·539	1·980	1·523	1·957	1·506	94	49
95	50	1·854	1·402	1·834	1·388	1·814	1·373	95	50
96	51	1·720	1·273	1·702	1·260	1·684	1·248	96	51
97	52	1·585	1·151	1·569	1·140	1·553	1·129	97	52
98	53	1·462	1·042	1·448	1·033	1·435	1·024	98	53
99	54	1·327	·928	1·316	·920	1·304	·912	99	54
100	55	...	·837	...	·831	...	·824	100	55
101	56	...	·713	..	·708	...	·703	101	56
102	57	...	·551	...	·548	...	·544	102	57
103	58	...	·382	...	·381	...	·379	103	58

TWO FEMALES.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
DIFFERENCE IN AGE 50 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female.	Female.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Female.	Female.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
70	20	8·358	...	8·092	...	7·839	...	70	20
71	21	7·987	...	7·742	...	7·509	...	71	21
72	22	7·623	...	7·397	...	7·183	...	72	22
73	23	7·267	...	7·060	...	6·862	...	73	23
74	24	6·918	...	6·728	...	6·547	...	74	24
75	25	6·579	6·121	6·405	5·961	6·239	5·808	75	25
76	26	6·248	5·785	6·090	5·640	5·938	5·500	76	26
77	27	5·927	5·459	5·783	5·327	5·644	5·201	77	27
78	28	5·616	5·142	5·485	5·023	5·359	4·909	78	28
79	29	5·315	4·836	5·196	4·729	5·082	4·626	79	29
80	30	5·025	4·541	4·917	4·445	4·813	4·352	80	30
81	31	4·745	4·257	4·647	4·171	4·553	4·087	81	31
82	32	4·475	3·984	4·387	3·906	4·302	3·832	82	32
83	33	4·216	3·722	4·136	3·653	4·059	3·586	83	33
84	34	3·967	3·471	3·895	3·410	3·826	3·350	84	34
85	35	3·728	3·231	3·663	3·177	3·601	3·124	85	35
86	36	3·499	3·002	3·442	2·954	3·386	2·907	86	36
87	37	3·281	2·784	3·229	2·742	3·179	2·700	87	37
88	38	3·071	2·577	3·025	2·540	2·980	2·503	88	38
89	39	2·872	2·381	2·831	2·348	2·791	2·316	89	39
90	40	2·681	2·194	2·645	2·165	2·609	2·137	90	40
91	41	2·501	2·019	2·468	1·994	2·436	1·969	91	41
92	42	2·329	1·852	2·300	1·830	2·271	1·808	92	42
93	43	2·165	1·696	2·139	1·676	2·113	1·657	93	43
94	44	2·010	1·548	1·987	1·532	1·965	1·515	94	44
95	45	1·861	1·410	1·841	1·396	1·821	1·381	95	45
96	46	1·726	1·280	1·708	1·267	1·690	1·255	96	46
97	47	1·590	1·157	1·574	1·146	1·559	1·135	97	47
98	48	1·467	1·047	1·453	1·038	1·439	1·029	98	48
99	49	1·331	·932	1·319	·924	1·308	·917	99	49
100	50	...	·841	...	·834	...	·828	100	50
101	51	...	·716	...	·711	...	·706	101	51
102	52	...	·553	...	·550	...	·546	102	52
103	53	...	·384	...	·382	...	·380	103	53

TWO FEMALES.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
DIFFERENCE IN AGE 55 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
75	20	6·596	...	6·421	...	6·255	...	75	20
76	21	6·266	...	6·106	...	5·954	...	76	21
77	22	5·945	...	5·800	...	5·660	...	77	22
78	23	5·634	...	5·502	...	5·375	...	78	23
79	24	5·333	...	5·213	...	5·098	...	79	24
80	25	5·042	4·561	4·933	4·464	4·829	4·371	80	25
81	26	4·762	4·276	4·664	4·190	4·569	4·106	81	26
82	27	4·491	4·003	4·402	3·925	4·317	3·850	82	27
83	28	4·231	3·740	4·151	3·671	4·074	3·604	83	28
84	29	3·982	3·488	3·910	3·427	3·840	3·367	84	29
85	30	3·742	3·248	3·677	3·193	3·614	3·140	85	30
86	31	3·513	3·018	3·455	2·969	3·398	2·922	86	31
87	32	3·293	2·799	3·241	2·756	3·191	2·714	87	32
88	33	3·083	2·591	3·037	2·553	2·991	2·516	88	33
89	34	2·883	2·394	2·842	2·360	2·801	2·328	89	34
90	35	2·692	2·206	2·654	2·177	2·618	2·148	90	35
91	36	2·510	2·030	2·477	2·004	2·445	1·979	91	36
92	37	2·338	1·862	2·308	1·840	2·280	1·818	92	37
93	38	2·172	1·705	2·146	1·685	2·121	1·666	93	38
94	39	2·017	1·556	1·994	1·539	1·972	1·523	94	39
95	40	1·867	1·417	1·847	1·403	1·827	1·388	95	40
96	41	1·731	1·286	1·713	1·273	1·695	1·261	96	41
97	42	1·595	1·162	1·579	1·152	1·563	1·141	97	42
98	43	1·471	1·052	1·457	1·043	1·443	1·034	98	43
99	44	1·335	·937	1·323	·929	1·311	·921	99	44
100	45	...	·845	...	·838	...	·831	100	45
101	46	...	·719	...	·714	...	·709	101	46
102	47	...	·555	...	·552	...	·548	102	47
103	48	...	·385	...	·383	...	·381	103	48

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 60 YEARS.

Age.		2½%		3%		3½%		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
80	20	5·051	...	4·942	...	4·837	...	80	20
81	21	4·770	...	4·672	...	4·577	...	81	21
82	22	4·500	...	4·411	...	4·325	...	82	22
83	23	4·240	...	4·160	...	4·082	...	83	23
84	24	3·990	...	3·918	...	3·848	...	84	24
85	25	3·751	3·258	3·686	3·203	3·623	3·150	85	25
86	26	3·521	3·028	3·463	2·979	3·406	2·932	86	26
87	27	3·301	2·809	3·249	2·766	3·198	2·724	87	27
88	28	3·091	2·601	3·044	2·562	2·999	2·525	88	28
89	29	2·891	2·403	2·849	2·369	2·808	2·336	89	29
90	30	2·699	2·215	2·661	2·185	2·625	2·156	90	30
91	31	2·517	2·038	2·484	2·012	2·451	1·987	91	31
92	32	2·344	1·870	2·314	1·847	2·285	1·825	92	32
93	33	2·178	1·712	2·152	1·692	2·126	1·673	93	33
94	34	2·023	1·563	2·000	1·546	1·977	1·529	94	34
95	35	1·872	1·423	1·852	1·408	1·832	1·394	95	35
96	36	1·736	1·291	1·718	1·278	1·700	1·266	96	36
97	37	1·599	1·167	1·583	1·156	1·567	1·145	97	37
98	38	1·475	1·057	1·461	1·047	1·447	1·038	98	38
99	39	1·338	·940	1·326	·932	1·314	·925	99	39
100	40	...	·848	...	·841	...	·835	100	40
101	41	...	·721	...	·716	...	·711	101	41
102	42	...	·557	...	·553	...	·550	102	42
103	43	...	·386	...	·384	...	·382	103	43

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 65 YEARS.

Age.		$2\frac{1}{2}$%		3%		$3\frac{1}{2}$%		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
85	20	3·755	...	3·689	...	3·626	...	85	20
86	21	3·525	...	3·467	...	3·410	...	86	21
87	22	3·305	...	3·253	...	3·202	...	87	22
88	23	3·095	...	3·048	...	3·003	...	88	23
89	24	2·895	...	2·853	...	2·812	...	89	24
90	25	2·703	2·220	2·665	2·190	2·629	2·161	90	25
91	26	2·521	2·043	2·488	2·017	2·455	1·992	91	26
92	27	2·348	1·875	2·318	1·852	2·289	1·830	92	27
93	28	2·182	1·716	2·156	1·697	2·130	1·677	93	28
94	29	2·026	1·567	2·003	1·550	1·980	1·533	94	29
95	30	1·876	1·427	1·855	1·412	1·835	1·398	95	30
96	31	1·739	1·295	1·721	1·282	1·703	1·270	96	31
97	32	1·602	1·171	1·586	1·160	1·570	1·149	97	32
98	33	1·477	1·060	1·463	1·050	1·450	1·041	98	33
99	34	1·340	·943	1·329	·935	1·317	·927	99	34
100	35	...	·850	...	·844	...	·837	100	35
101	36	...	·723	...	·718	...	·713	101	36
102	37	...	·558	...	·555	...	·551	102	37
103	38	...	·386	...	·385	...	·383	103	38

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 70 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
90	20	2·705	...	2·667	...	2·631	...	90	20
91	21	2·523	...	2·489	...	2·457	...	91	21
92	22	2·350	...	2·320	...	2·291	...	92	22
93	23	2·184	...	2·157	...	2·132	...	93	23
94	24	2·028	...	2·005	...	1·982	...	94	24
95	25	1·878	1·430	1·857	1·415	1·837	1·400	95	25
96	26	1·741	1·297	1·722	1·285	1·704	1·272	96	26
97	27	1·604	1·173	1·588	1·162	1·572	1·151	97	27
98	28	1·479	1·062	1·465	1·052	1·451	1·043	98	28
99	29	1·342	·945	1·330	·937	1·318	·929	99	29
100	30	...	·852	...	·845	...	·839	100	30
101	31	...	·725	...	·720	...	·714	101	31
102	32	...	·559	...	·556	...	·553	102	32
103	33	...	·387	...	·385	...	·383	103	33

TWO FEMALES.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 75 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Female. y
95	20	1·878	...	1·858	...	1·837	...	95	20
96	21	1·741	...	1·723	...	1·705	...	96	21
97	22	1·604	...	1·588	...	1·572	...	97	22
98	23	1·480	...	1·466	...	1·452	...	98	23
99	24	1·343	...	1·331	...	1·319	...	99	24
100	25	...	·853	...	·846	...	·840	100	25
101	26	...	·726	...	·720	...	·715	101	26
102	27	...	·560	...	·557	...	·553	102	27
103	28	...	·387	...	·386	...	·384	103	28

BRITISH OFFICES LIFE ANNUITY TABLES, 1893.

VALUES OF ANNUITIES ON TWO JOINT LIVES.

MALE AND FEMALE

(FEMALE THE ELDER).

$2\frac{1}{2}$, 3, and $3\frac{1}{2}$ per cent.

SELECT AND ULTIMATE VALUES.

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 0 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
20	20	20·671	...	19·092	...	17·706	...	20	20
21	21	20·452	...	18·910	...	17·553	...	21	21
22	22	20·231	...	18·723	...	17·394	...	22	22
23	23	20·000	...	18·531	...	17·232	...	23	23
24	24	19·765	...	18·331	...	17·062	...	24	24
25	25	19·524	19·132	18·126	17·764	16·887	16·551	25	25
26	26	19·276	18·885	17·915	17·553	16·707	16·370	26	26
27	27	19·023	18·632	17·699	17·336	16·521	16·184	27	27
28	28	18·765	18·373	17·478	17·114	16·330	15·992	28	28
29	29	18·502	18·108	17·251	16·886	16·135	15·794	29	29
30	30	18·234	17·839	17·020	16·653	15·934	15·591	30	30
31	31	17·961	17·565	16·783	16·415	15·728	15·384	31	31
32	32	17·683	17·285	16·542	16·171	15·518	15·172	32	32
33	33	17·401	17·002	16·296	15·924	15·303	14·955	33	33
34	34	17·114	16·714	16·046	15·672	15·083	14·733	34	34
35	35	16·825	16·422	15·792	15·415	14·860	14·507	35	35
36	36	16·531	16·127	15·534	15·155	14·633	14·277	36	36
37	37	16·235	15·827	15·273	14·891	14·402	14·042	37	37
38	38	15·935	15·525	15·008	14·622	14·166	13·804	38	38
39	39	15·632	15·219	14·739	14·352	13·928	13·563	39	39
40	40	15·326	14·911	14·468	14·077	13·686	13·318	40	40
41	41	15·019	14·600	14·194	13·800	13·441	13·069	41	41
42	42	14·709	14·288	13·917	13·520	13·193	12·817	42	42
43	43	14·397	13·972	13·638	13·237	12·942	12·563	43	43
44	44	14·083	13·655	13·356	12·952	12·688	12·306	44	44
45	45	13·768	13·336	13·072	12·663	12·432	12·045	45	45
46	46	13·450	13·016	12·785	12·374	12·173	11·783	46	46
47	47	13·130	12·693	12·495	12·081	11·911	11·517	47	47
48	48	12·809	12·369	12·205	11·787	11·646	11·249	48	48
49	49	12·486	12·044	11·911	11·490	11·378	10·977	49	49
50	50	12·162	11·716	11·615	11·191	11·107	10·704	50	50
51	51	11·835	11·388	11·316	10·890	10·834	10·428	51	51
52	52	11·506	11·057	11·015	10·587	10·558	10·148	52	52
53	53	11·176	10·725	10·711	10·280	10·278	9·866	53	53
54	54	10·843	10·391	10·405	9·972	9·995	9·581	54	54
55	55	10·508	10·055	10·096	9·661	9·709	9·292	55	55
56	56	10·172	9·717	9·783	9·347	9·420	9·001	56	56
57	57	9·833	9·377	9·469	9·032	9·127	8·707	57	57
58	58	9·493	9·036	9·152	8·713	8·832	8·409	58	58
59	59	9·152	8·694	8·833	8·393	8·533	8·109	59	59
60	60	8·809	8·351	8·513	8·072	8·233	7·808	60	60
61	61	8·467	8·008	8·191	7·749	7·931	7·503	61	61
62	62	8·125	7·665	7·870	7·426	7·628	7·199	62	62
63	63	7·785	7·323	7·549	7·103	7·325	6·893	63	63
64	64	7·447	6·984	7·229	6·781	7·022	6·588	64	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 0 YEARS.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
65	65	7·112	6·647	6·912	6·461	6·721	6·284	65	65
66	66	6·782	6·314	6·598	6·144	6·422	5·982	66	66
67	67	6·457	5·987	6·289	5·832	6·128	5·684	67	67
68	68	6·139	5·665	5·985	5·525	5·838	5·390	68	68
69	69	5·828	5·351	5·687	5·223	5·553	5·101	69	69
70	70	5·524	5·044	5·397	4·929	5·274	4·818	70	70
71	71	5·230	4·747	5·114	4·643	5·002	4·543	71	71
72	72	4·944	4·458	4·839	4·365	4·738	4·275	72	72
73	73	4·668	4·180	4·574	4·096	4·482	4·015	73	73
74	74	4·402	3·911	4·317	3·836	4·234	3·764	74	74
75	75	4·146	3·654	4·069	3·587	3·994	3·522	75	75
76	76	3·900	3·407	3·831	3·347	3·764	3·290	76	76
77	77	3·664	3·170	3·602	3·118	3·541	3·067	77	77
78	78	3·438	2·945	3·382	2·898	3·328	2·853	78	78
79	79	3·222	2·730	3·172	2·689	3·123	2·649	79	79
80	80	3·016	2·526	2·971	2·490	2·927	2·454	80	80
81	81	2·819	2·332	2·779	2·300	2·740	2·269	81	81
82	82	2·631	2·149	2·595	2·121	2·561	2·093	82	82
83	83	2·453	1·975	2·421	1·951	2·390	1·927	83	83
84	84	2·283	1·812	2·254	1·790	2·227	1·769	84	84
85	85	2·121	1·658	2·096	1·639	2·071	1·621	85	85
86	86	1·968	1·512	1·946	1·496	1·924	1·480	86	86
87	87	1·823	1·376	1·803	1·362	1·783	1·349	87	87
88	88	1·685	1·249	1·667	1·237	1·650	1·225	88	88
89	89	1·554	1·130	1·539	1·120	1·524	1·109	89	89
90	90	1·431	1·019	1·417	1·010	1·404	1·001	90	90
91	91	1·315	·916	1·303	·908	1·291	·900	91	91
92	92	1·205	·820	1·194	·813	1·184	·806	92	92
93	93	1·101	·731	1·092	·725	1·083	·719	93	93
94	94	1·004	·649	·996	·644	·988	·639	94	94
95	95	·912	·573	·905	·569	·898	·565	95	95
96	96	·827	·503	·821	·500	·815	·496	96	96
97	97	·746	·439	·741	·436	·735	·433	97	97
98	98	·672	·383	·667	·381	·663	·378	98	98
99	99	·602	·328	·598	·326	·594	·324	99	99
100	100	...	·287	...	·285	...	·284	100	100
101	101	...	·241	...	·240	...	·238	101	101
102	102	...	·187	...	·186	...	·185	102	102
103	103	...	·144	...	·144	...	·143	103	103

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 5 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Female.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
25	20	20·105	...	18·616	...	17·302	...	25	20
26	21	19·872	...	18·419	...	17·135	...	26	21
27	22	19·634	...	18·218	...	16·963	...	27	22
28	23	19·391	...	18·010	...	16·786	...	28	23
29	24	19·143	...	17·799	...	16·605	...	29	24
30	25	18·890	18·489	17·582	17·210	16·418	16·072	30	25
31	26	18·631	18·230	17·360	16·987	16·227	15·880	31	26
32	27	18·368	17·966	17·134	16·759	16·031	15·682	32	27
33	28	18·101	17·697	16·903	16·527	15·830	15·480	33	28
34	29	17·830	17·424	16·668	16·290	15·626	15·273	34	29
35	30	17·556	17·147	16·429	16·048	15·418	15·061	35	30
36	31	17·277	16·867	16·186	15·803	15·205	14·846	36	31
37	32	16·995	16·581	15·940	15·554	14·989	14·627	37	32
38	33	16·709	16·294	15·689	15·301	14·768	14·404	38	33
39	34	16·420	16·003	15·435	15·044	14·545	14·177	39	34
40	35	16·128	15·708	15·179	14·785	14·317	13·947	40	35
41	36	15·835	15·411	14·919	14·521	14·087	13·713	41	36
42	37	15·538	15·112	14·655	14·255	13·853	13·476	42	37
43	38	15·239	14·809	14·390	13·986	13·616	13·235	43	38
44	39	14·936	14·505	14·121	13·714	13·376	12·992	44	39
45	40	14·632	14·197	13·849	13·439	13·133	12·746	45	40
46	41	14·325	13·888	13·574	13·162	12·886	12·496	46	41
47	42	14·016	13·576	13·297	12·881	12·637	12·243	47	42
48	43	13·704	13·262	13·017	12·598	12·385	11·987	48	43
49	44	13·389	12·945	12·732	12·311	12·127	11·727	49	44
50	45	13·072	12·626	12·446	12·022	11·867	11·465	50	45
51	46	12·752	12·304	12·155	11·730	11·603	11·199	51	46
52	47	12·428	11·979	11·861	11·434	11·335	10·928	52	47
53	48	12·102	11·651	11·563	11·134	11·063	10·654	53	48
54	49	11·771	11·320	11·260	10·831	10·785	10·375	54	49
55	50	11·437	10·985	10·954	10·523	10·504	10·092	55	50
56	51	11·099	10·648	10·643	10·212	10·218	9·805	56	51
57	52	10·758	10·306	10·328	9·897	9·927	9·513	57	52
58	53	10·413	9·962	10·010	9·578	9·632	9·217	58	53
59	54	10·065	9·615	9·687	9·254	9·332	8·916	59	54
60	55	9·715	9·264	9·361	8·928	9·028	8·612	60	55
61	56	9·363	8·912	9·032	8·599	8·721	8·304	61	56
62	57	9·008	8·558	8·701	8·267	8·411	7·993	62	57
63	58	8·654	8·203	8·369	7·934	8·099	7·679	63	58
64	59	8·301	7·849	8·037	7·600	7·786	7·364	64	59
65	60	7·950	7·495	7·705	7·266	7·473	7·049	65	60
66	61	7·601	7·145	7·376	6·934	7·161	6·734	66	61
67	62	7·256	6·797	7·049	6·605	6·852	6·421	67	62
68	63	6·917	6·455	6·727	6·279	6·545	6·111	68	63
69	64	6·584	6·119	6·410	5·958	6·243	5·805	69	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 5 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
70	65	6·258	5·789	6·099	5·643	5·947	5·504	70	65
71	66	5·940	5·467	5·795	5·335	5·656	5·209	71	66
72	67	5·632	5·155	5·500	5·035	5·373	4·921	72	67
73	68	5·332	4·851	5·212	4·743	5·097	4·640	73	68
74	69	5·042	4·558	4·933	4·461	4·829	4·367	74	69
75	70	4·762	4·274	4·663	4·187	4·569	4·104	75	70
76	71	4·492	4·002	4·403	3·924	4·317	3·849	76	71
77	72	4·232	3·740	4·152	3·671	4·074	3·603	77	72
78	73	3·982	3·489	3·910	3·427	3·840	3·367	78	73
79	74	3·743	3·249	3·678	3·194	3·615	3·141	79	74
80	75	3·514	3·020	3·455	2·971	3·399	2·924	80	75
81	76	3·294	2·801	3·242	2·758	3·192	2·716	81	76
82	77	3·084	2·594	3·038	2·556	2·992	2·519	82	77
83	78	2·884	2·397	2·843	2·363	2·802	2·331	83	78
84	79	2·694	2·210	2·656	2·180	2·620	2·151	84	79
85	80	2·512	2·033	2·478	2·007	2·446	1·982	85	80
86	81	2·339	1·866	2·310	1·843	2·281	1·821	86	81
87	82	2·175	1·708	2·148	1·689	2·123	1·669	87	82
88	83	2·018	1·560	1·995	1·543	1·972	1·526	88	83
89	84	1·870	1·421	1·850	1·407	1·830	1·392	89	84
90	85	1·730	1·291	1·712	1·278	1·694	1·265	90	85
91	86	1·597	1·169	1·581	1·158	1·565	1·147	91	86
92	87	1·472	1·055	1·458	1·046	1·444	1·037	92	87
93	88	1·353	·949	1·340	·941	1·328	·933	93	88
94	89	1·241	·851	1·230	·844	1·219	·837	94	89
95	90	1·135	·760	1·125	·754	1·116	·748	95	90
96	91	1·037	·675	1·029	·670	1·021	·665	96	91
97	92	·943	·596	·935	·592	·928	·588	97	92
98	93	·857	·528	·851	·524	·844	·521	98	93
99	94	·773	·459	·767	·456	·762	·453	99	94
100	95	...	·408	...	·405	...	·402	100	95
101	96	...	·346	...	·344	...	·342	101	96
102	97	...	·271	...	·270	...	·268	102	97
103	98	...	·205	...	·204	...	·203	103	98

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 10 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Female.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
30	20	19·381	...	17·999	...	16·775	...	30	20
31	21	19·134	...	17·789	...	16·594	...	31	21
32	22	18·883	...	17·574	...	16·410	...	32	22
33	23	18·629	...	17·356	...	16·221	...	33	23
34	24	18·369	...	17·133	...	16·028	...	34	24
35	25	18·106	17·693	16·906	16·521	15·831	15·472	35	25
36	26	17·839	17·424	16·674	16·288	15·630	15·269	36	26
37	27	17·569	17·151	16·440	16·051	15·426	15·062	37	27
38	28	17·295	16·876	16·202	15·810	15·217	14·851	38	28
39	29	17·018	16·596	15·960	15·565	15·006	14·636	39	29
40	30	16·739	16·313	15·715	15·317	14·790	14·418	40	30
41	31	16·456	16·028	15·467	15·066	14·572	14·195	41	31
42	32	16·170	15·740	15·215	14·812	14·350	13·971	42	32
43	33	15·882	15·449	14·961	14·554	14·125	13·742	43	33
44	34	15·590	15·155	14·703	14·294	13·896	13·511	44	34
45	35	15·296	14·857	14·443	14·030	13·665	13·276	45	35
46	36	14·999	14·559	14·178	13·763	13·430	13·037	46	36
47	37	14·699	14·256	13·911	13·494	13·190	12·796	47	37
48	38	14·397	13·951	13·641	13·220	12·948	12·550	48	38
49	39	14·090	13·643	13·366	12·943	12·701	12·301	49	39
50	40	13·779	13·332	13·087	12·663	12·450	12·048	50	40
51	41	13·467	13·017	12·805	12·379	12·195	11·791	51	41
52	42	13·149	12·698	12·518	12·090	11·935	11·529	52	42
53	43	12·827	12·376	12·226	11·798	11·671	11·263	53	43
54	44	12·500	12·049	11·928	11·500	11·400	10·991	54	44
55	45	12·169	11·718	11·627	11·197	11·124	10·714	55	45
56	46	11·832	11·383	11·319	10·890	10·842	10·432	56	46
57	47	11·490	11·042	11·006	10·578	10·554	10·145	57	47
58	48	11·145	10·697	10·688	10·259	10·261	9·851	58	48
59	49	10·794	10·347	10·364	9·936	9·961	9·552	59	49
60	50	10·439	9·993	10·035	9·608	9·657	9·247	60	50
61	51	10·080	9·636	9·703	9·276	9·348	8·938	61	51
62	52	9·719	9·275	9·366	8·940	9·034	8·624	62	52
63	53	9·356	8·912	9·028	8·600	8·718	8·306	63	53
64	54	8·993	8·548	8·687	8·259	8·399	7·986	64	54
65	55	8·629	8·184	8·346	7·916	8·078	7·663	65	55
66	56	8·268	7·821	8·006	7·574	7·757	7·340	66	56
67	57	7·909	7·460	7·667	7·233	7·438	7·018	67	57
68	58	7·555	7·102	7·332	6·895	7·120	6·697	68	58
69	59	7·206	6·750	7·002	6·560	6·807	6·379	69	59
70	60	6·864	6·404	6·677	6·231	6·498	6·065	70	60
71	61	6·529	6·065	6·357	5·907	6·193	5·756	71	61
72	62	6·202	5·734	6·046	5·591	5·896	5·453	72	62
73	63	5·884	5·412	5·742	5·282	5·605	5·157	73	63
74	64	5·576	5·099	5·446	4·982	5·322	4·869	74	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 10 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
75	65	5·277	4·796	5·159	4·691	5·046	4·589	75	65
76	66	4·988	4·504	4·882	4·409	4·779	4·318	76	66
77	67	4·710	4·222	4·614	4·137	4·520	4·055	77	67
78	68	4·442	3·951	4·355	3·875	4·271	3·802	78	68
79	69	4·184	3·692	4·105	3·623	4·029	3·558	79	69
80	70	3·936	3·443	3·865	3·382	3·797	3·324	80	70
81	71	3·699	3·205	3·635	3·151	3·574	3·099	81	71
82	72	3·471	2·977	3·414	2·930	3·359	2·884	82	72
83	73	3·254	2·761	3·202	2·719	3·153	2·678	83	73
84	74	3·046	2·555	3·000	2·518	2·956	2·482	84	74
85	75	2·847	2·360	2·807	2·328	2·767	2·296	85	75
86	76	2·658	2·175	2·622	2·146	2·587	2·119	86	76
87	77	2·478	2·000	2·446	1·975	2·414	1·951	87	77
88	78	2·307	1·835	2·278	1·813	2·250	1·792	88	78
89	79	2·144	1·680	2·119	1·660	2·094	1·642	89	79
90	80	1·989	1·533	1·966	1·516	1·944	1·500	90	80
91	81	1·843	1·396	1·823	1·382	1·803	1·368	91	81
92	82	1·704	1·267	1·687	1·255	1·669	1·242	92	82
93	83	1·572	1·147	1·557	1·136	1·541	1·126	93	83
94	84	1·449	1·035	1·435	1·025	1·421	1·016	94	84
95	85	1·330	·930	1·318	·922	1·306	·914	95	85
96	86	1·222	·833	1·212	·826	1·201	·819	96	86
97	87	1·117	·742	1·107	·736	1·098	·730	97	87
98	88	1·021	·662	1·013	·657	1·005	·652	98	88
99	89	·924	·581	·917	·577	·910	·573	99	89
100	90	...	·520	...	·517	...	·513	100	90
101	91	...	·444	...	·441	...	·438	101	91
102	92	...	·348	...	·346	...	·344	102	92
103	93	...	·257	...	·256	...	·254	103	93

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 15 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
35	20	18·506	...	17·249	...	16·128	...	35	20
36	21	18·248	...	17·027	...	15·936	...	36	21
37	22	17·987	...	16·802	...	15·740	...	37	22
38	23	17·723	...	16·573	...	15·541	...	38	23
39	24	17·455	...	16·340	...	15·338	...	39	24
40	25	17·183	16·754	16·104	15·704	15·132	14·757	40	25
41	26	16·909	16·478	15·865	15·462	14·922	14·544	41	26
42	27	16·633	16·199	15·623	15·216	14·710	14·328	42	27
43	28	16·353	15·917	15·377	14·968	14·494	14·109	43	28
44	29	16·070	15·631	15·128	14·717	14·274	13·887	44	29
45	30	15·785	15·343	14·877	14·462	14·052	13·661	45	30
46	31	15·496	15·052	14·621	14·204	13·825	13·432	46	31
47	32	15·203	14·757	14·362	13·942	13·595	13·199	47	32
48	33	14·908	14·460	14·100	13·678	13·361	12·962	48	33
49	34	14·608	14·159	13·832	13·408	13·122	12·721	49	34
50	35	14·305	13·854	13·562	13·136	12·879	12·476	50	35
51	36	13·997	13·546	13·286	12·858	12·632	12·227	51	36
52	37	13·685	13·233	13·004	12·576	12·377	11·972	52	37
53	38	13·367	12·916	12·719	12·289	12·119	11·713	53	38
54	39	13·045	12·593	12·426	11·997	11·854	11·447	54	39
55	40	12·716	12·266	12·128	11·700	11·584	11·176	55	40
56	41	12·381	11·933	11·823	11·396	11·306	10·898	56	41
57	42	12·041	11·594	11·513	11·086	11·022	10·615	57	42
58	43	11·695	11·250	11·196	10·771	10·731	10·324	58	43
59	44	11·344	10·900	10·873	10·448	10·433	10·027	59	44
60	45	10·987	10·545	10·544	10·120	10·130	9·724	60	45
61	46	10·625	10·184	10·209	9·787	9·820	9·415	61	46
62	47	10·260	9·820	9·870	9·449	9·505	9·100	62	47
63	48	9·891	9·452	9·528	9·106	9·186	8·780	63	48
64	49	9·521	9·082	9·182	8·760	8·863	8·457	64	49
65	50	9·150	8·710	8·835	8·412	8·538	8·130	65	50
66	51	8·780	8·339	8·488	8·063	8·211	7·802	66	51
67	52	8·411	7·969	8·141	7·714	7·886	7·473	67	52
68	53	8·047	7·601	7·798	7·367	7·561	7·145	68	53
69	54	7·687	7·238	7·457	7·023	7·239	6·819	69	54
70	55	7·333	6·880	7·122	6·684	6·921	6·497	70	55
71	56	6·986	6·529	6·792	6·349	6·608	6·179	71	56
72	57	6·646	6·185	6·469	6·022	6·300	5·866	72	57
73	58	6·315	5·849	6·154	5·701	5·999	5·559	73	58
74	59	5·993	5·523	5·846	5·388	5·705	5·260	74	59
75	60	5·681	5·206	5·547	5·084	5·419	4·968	75	60
76	61	5·379	4·899	5·257	4·790	5·140	4·685	76	61
77	62	5·086	4·603	4·976	4·505	4·870	4·410	77	62
78	63	4·804	4·317	4·704	4·229	4·608	4·144	78	63
79	64	4·532	4·043	4·442	3·964	4·355	3·887	79	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 15 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
80	65	4·271	3·779	4·190	3·709	4·111	3·640	80	65
81	66	4·020	3·527	3·947	3·464	3·876	3·403	81	66
82	67	3·779	3·285	3·713	3·229	3·649	3·175	82	67
83	68	3·548	3·054	3·489	3·004	3·431	2·956	83	68
84	69	3·327	2·834	3·274	2·790	3·223	2·747	84	69
85	70	3·116	2·625	3·068	2·586	3·022	2·548	85	70
86	71	2·914	2·426	2·872	2·392	2·831	2·358	86	71
87	72	2·722	2·237	2·684	2·207	2·647	2·178	87	72
88	73	2·539	2·059	2·505	2·033	2·472	2·007	88	73
89	74	2·365	1·891	2·335	1·868	2·305	1·845	89	74
90	75	2·198	1·731	2·172	1·711	2·146	1·692	90	75
91	76	2·042	1·582	2·018	1·565	1·995	1·548	91	76
92	77	1·892	1·442	1·871	1·427	1·851	1·412	92	77
93	78	1·750	1·310	1·732	1·297	1·713	1·284	93	78
94	79	1·617	1·187	1·601	1·176	1·585	1·164	94	79
95	80	1·489	1·072	1·475	1·062	1·461	1·053	95	80
96	81	1·373	·964	1·360	·956	1·347	·948	96	81
97	82	1·258	·864	1·247	·856	1·236	·849	97	82
98	83	1·155	·775	1·145	·769	1·135	·763	98	83
99	84	1·047	·684	1·038	·679	1·030	·674	99	84
100	85	...	·615	...	·611	...	·606	100	85
101	86	...	·525	...	·522	...	·518	101	86
102	87	...	·411	...	·408	...	·406	102	87
103	88	...	·297	...	·296	...	·294	103	88

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 20 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
40	20	17·497	...	16·378	...	15·371	...	40	20
41	21	17·230	...	16·145	...	15·168	...	41	21
42	22	16·960	...	15·910	...	14·962	...	42	22
43	23	16·687	...	15·671	...	14·753	...	43	23
44	24	16·410	...	15·428	...	14·540	...	44	24
45	25	16·131	15·686	15·183	14·766	14·324	13·932	45	25
46	26	15·848	15·401	14·934	14·515	14·103	13·709	46	26
47	27	15·561	15·113	14·681	14·260	13·880	13·482	47	27
48	28	15·272	14·822	14·424	14·001	13·652	13·252	48	28
49	29	14·978	14·526	14·163	13·738	13·419	13·017	49	29
50	30	14·679	14·227	13·898	13·471	13·182	12·778	50	30
51	31	14·377	13·924	13·628	13·199	12·941	12·535	51	31
52	32	14·069	13·615	13·351	12·923	12·693	12·286	52	32
53	33	13·755	13·302	13·070	12·641	12·439	12·032	53	33
54	34	13·435	12·983	12·781	12·352	12·178	11·771	54	34
55	35	13·110	12·658	12·487	12·059	11·911	11·505	55	35
56	36	12·777	12·328	12·185	11·758	11·638	11·231	56	36
57	37	12·439	11·991	11·877	11·451	11·357	10·950	57	37
58	38	12·093	11·647	11·562	11·138	11·068	10·663	58	38
59	39	11·741	11·298	11·240	10·817	10·772	10·368	59	39
60	40	11·383	10·943	10·910	10·489	10·469	10·067	60	40
61	41	11·020	10·581	10·575	10·156	10·159	9·758	61	41
62	42	10·651	10·215	10·235	9·816	9·844	9·443	62	42
63	43	10·279	9·844	9·890	9·472	9·524	9·123	63	43
64	44	9·905	9·470	9·541	9·124	9·199	8·798	64	44
65	45	9·529	9·094	9·191	8·772	8·871	8·469	65	45
66	46	9·153	8·718	8·839	8·419	8·542	8·138	66	46
67	47	8·779	8·342	8·487	8·066	8·211	7·805	67	47
68	48	8·407	7·967	8·138	7·713	7·882	7·472	68	48
69	49	8·040	7·596	7·791	7·363	7·555	7·141	69	49
70	50	7·678	7·231	7·449	7·017	7·231	6·813	70	50
71	51	7·322	6·871	7·112	6·675	6·912	6·488	71	51
72	52	6·974	6·518	6·781	6·339	6·598	6·169	72	52
73	53	6·634	6·173	6·458	6·010	6·289	5·855	73	53
74	54	6·303	5·837	6·141	5·689	5·988	5·548	74	54
75	55	5·981	5·510	5·834	5·377	5·693	5·248	75	55
76	56	5·669	5·194	5·535	5·073	5·407	4·957	76	56
77	57	5·366	4·887	5·245	4·778	5·129	4·674	77	57
78	58	5·074	4·591	4·964	4·493	4·859	4·399	78	58
79	59	4·793	4·306	4·693	4·218	4·598	4·133	79	59
80	60	4·521	4·032	4·432	3·953	4·345	3·877	80	60
81	61	4·260	3·769	4·180	3·698	4·101	3·630	81	61
82	62	4·010	3·516	3·937	3·454	3·866	3·393	82	62
83	63	3·769	3·275	3·704	3·220	3·640	3·166	83	63
84	64	3·539	3·045	3·480	2·995	3·423	2·947	84	64

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
FEMALE 20 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
85	65	3·318	2·825	3·265	2·781	3·214	2·739	85	65
86	66	3·107	2·616	3·060	2·578	3·014	2·540	86	66
87	67	2·906	2·418	2·864	2·384	2·823	2·351	87	67
88	68	2·714	2·230	2·676	2·200	2·640	2·171	88	68
89	69	2·531	2·052	2·498	2·026	2·465	2·000	89	69
90	70	2·357	1·883	2·327	1·861	2·298	1·838	90	70
91	71	2·192	1·725	2·166	1·706	2·140	1·686	91	71
92	72	2·035	1·576	2·012	1·559	1·989	1·542	92	72
93	73	1·886	1·436	1·865	1·421	1·844	1·406	93	73
94	74	1·745	1·304	1·727	1·291	1·709	1·279	94	74
95	75	1·610	1·182	1·594	1·171	1·578	1·159	95	75
96	76	1·487	1·066	1·473	1·057	1·459	1·047	96	76
97	77	1·366	·958	1·353	·950	1·341	·942	97	77
98	78	1·256	·863	1·245	·856	1·234	·849	98	78
99	79	1·139	·764	1·130	·758	1·120	·752	99	79
100	80	...	·688	...	·683	...	·678	100	80
101	81	...	·588	...	·584	...	·580	101	81
102	82	...	·458	...	·455	...	·452	102	82
103	83	...	·327	...	·325	...	·324	103	83

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
FEMALE 25 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
45	20	16·369	...	15·394	...	14·510	...	45	20
46	21	16·091	...	15·149	...	14·295	...	46	21
47	22	15·809	...	14·901	...	14·075	...	47	22
48	23	15·524	...	14·649	...	13·853	...	48	23
49	24	15·233	...	14·392	...	13·624	...	49	24
50	25	14·938	14·484	14·130	13·702	13·391	12·987	50	25
51	26	14·639	14·185	13·864	13·434	13·153	12·747	51	26
52	27	14·334	13·879	13·591	13·162	12·909	12·502	52	27
53	28	14·023	13·570	13·313	12·883	12·659	12·252	53	28
54	29	13·706	13·253	13·027	12·599	12·402	11·995	54	29
55	30	13·383	12·931	12·736	12·307	12·138	11·731	55	30
56	31	13·053	12·603	12·437	12·010	11·867	11·461	56	31
57	32	12·715	12·268	12·130	11·705	11·588	11·184	57	32
58	33	12·370	11·925	11·817	11·393	11·302	10·898	58	33
59	34	12·019	11·577	11·495	11·074	11·007	10·605	59	34
60	35	11·660	11·220	11·166	10·746	10·706	10·305	60	35
61	36	11·296	10·859	10·831	10·413	10·397	9·997	61	36
62	37	10·926	10·491	10·490	10·073	10·081	9·682	62	37
63	38	10·552	10·119	10·143	9·728	9·760	9·361	63	38
64	39	10·175	9·743	9·793	9·378	9·434	9·036	64	39
65	40	9·796	9·364	9·440	9·025	9·105	8·705	65	40
66	41	9·416	8·984	9·085	8·669	8·773	8·372	66	41
67	42	9·038	8·604	8·731	8·312	8·440	8·037	67	42
68	43	8·661	8·225	8·377	7·956	8·108	7·702	68	43
69	44	8·289	7·850	8·026	7·602	7·777	7·367	69	44
70	45	7·922	7·478	7·680	7·251	7·450	7·035	70	45
71	46	7·560	7·113	7·338	6·905	7·126	6·707	71	46
72	47	7·206	6·754	7·002	6·564	6·807	6·383	72	47
73	48	6·860	6·403	6·673	6·230	6·494	6·064	73	48
74	49	6·522	6·060	6·351	5·903	6·188	5·752	74	49
75	50	6·194	5·727	6·038	5·584	5·889	5·447	75	50
76	51	5·875	5·403	5·733	5·274	5·597	5·150	76	51
77	52	5·566	5·090	5·437	4·973	5·313	4·861	77	52
78	53	5·267	4·786	5·150	4·681	5·037	4·580	78	53
79	54	4·979	4·494	4·873	4·400	4·770	4·309	79	54
80	55	4·701	4·213	4·604	4·128	4·512	4·046	80	55
81	56	4·433	3·942	4·346	3·867	4·262	3·793	81	56
82	57	4·175	3·683	4·097	3·615	4·021	3·550	82	57
83	58	3·928	3·434	3·857	3·374	3·789	3·316	83	58
84	59	3·691	3·197	3·628	3·143	3·566	3·091	84	59
85	60	3·463	2·970	3·407	2·923	3·352	2·877	85	60
86	61	3·246	2·754	3·196	2·712	3·146	2·671	86	61
87	62	3·039	2·548	2·993	2·511	2·949	2·475	87	62
88	63	2·840	2·353	2·800	2·321	2·760	2·289	88	63
89	64	2·652	2·169	2·616	2·140	2·580	2·113	89	64

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
FEMALE 25 YEARS OLDER.

Age.		2½%		3%		3½%		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
90	65	2·471	1·994	2·439	1·969	2·408	1·945	90	65
91	66	2·301	1·830	2·272	1·808	2·244	1·787	91	66
92	67	2·139	1·674	2·113	1·655	2·088	1·636	92	67
93	68	1·983	1·528	1·961	1·511	1·939	1·495	93	68
94	69	1·838	1·391	1·818	1·376	1·798	1·362	94	69
95	70	1·698	1·262	1·680	1·250	1·663	1·238	95	70
96	71	1·570	1·141	1·555	1·131	1·539	1·120	96	71
97	72	1·444	1·028	1·430	1·019	1·417	1·010	97	72
98	73	1·329	·928	1·317	·920	1·305	·912	98	73
99	74	1·206	·823	1·196	·816	1·186	·810	99	74
100	75	...	·742	...	·736	...	·731	100	75
101	76	...	·633	...	·628	...	·624	101	76
102	77	...	·492	...	·489	...	·486	102	77
103	78	...	·347	...	·345	...	·344	103	78

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
FEMALE 30 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
50	20	15·114	...	14·287	...	13·532	...	50	20
51	21	14·817	...	14·023	...	13·297	...	51	21
52	22	14·514	...	13·754	...	13·055	...	52	22
53	23	14·206	...	13·477	...	12·808	...	53	23
54	24	13·891	...	13·194	...	12·554	...	54	24
55	25	13·568	13·117	12·905	12·476	12·292	11·885	55	25
56	26	13·239	12·789	12·606	12·180	12·023	11·617	56	26
57	27	12·903	12·456	12·302	11·877	11·745	11·341	57	27
58	28	12·559	12·114	11·989	11·566	11·460	11·057	58	28
59	29	12·207	11·766	11·668	11·247	11·167	10·766	59	29
60	30	11·849	11·410	11·340	10·921	10·866	10·466	60	30
61	31	11·484	11·048	11·004	10·588	10·557	10·159	61	31
62	32	11·113	10·680	10·663	10·248	10·242	9·845	62	32
63	33	10·738	10·306	10·316	9·903	9·921	9·524	63	33
64	34	10·360	9·929	9·965	9·552	9·594	9·198	64	34
65	35	9·978	9·548	9·610	9·197	9·264	8·867	65	35
66	36	9·596	9·166	9·254	8·840	8·931	8·532	66	36
67	37	9·215	8·783	8·897	8·481	8·597	8·196	67	37
68	38	8·836	8·402	8·541	8·123	8·262	7·859	68	38
69	39	8·460	8·023	8·188	7·766	7·930	7·522	69	39
70	40	8·089	7·648	7·838	7·412	7·599	7·188	70	40
71	41	7·724	7·279	7·493	7·062	7·273	6·856	71	41
72	42	7·366	6·916	7·153	6·718	6·951	6·530	72	42
73	43	7·016	6·561	6·821	6·380	6·635	6·208	73	43
74	44	6·674	6·214	6·495	6·049	6·325	5·892	74	44
75	45	6·341	5·876	6·178	5·727	6·023	5·584	75	45
76	46	6·018	5·548	5·870	5·413	5·727	5·283	76	46
77	47	5·704	5·230	5·569	5·108	5·440	4·990	77	47
78	48	5·401	4·922	5·278	4·812	5·161	4·705	78	48
79	49	5·107	4·625	4·996	4·525	4·890	4·430	79	49
80	50	4·825	4·338	4·724	4·249	4·627	4·163	80	50
81	51	4·552	4·063	4·461	3·983	4·374	3·906	81	51
82	52	4·290	3·799	4·208	3·727	4·129	3·658	82	52
83	53	4·038	3·545	3·964	3·482	3·893	3·420	83	53
84	54	3·796	3·302	3·730	3·246	3·666	3·191	84	54
85	55	3·564	3·071	3·505	3·021	3·447	2·972	85	55
86	56	3·343	2·850	3·290	2·805	3·238	2·762	86	56
87	57	3·131	2·640	3·083	2·601	3·037	2·562	87	57
88	58	2·928	2·440	2·886	2·406	2·844	2·372	88	58
89	59	2·736	2·251	2·698	2·221	2·660	2·191	89	59
90	60	2·551	2·071	2·517	2·045	2·484	2·019	90	60
91	61	2·377	1·903	2·346	1·879	2·317	1·857	91	61
92	62	2·210	1·743	2·184	1·722	2·157	1·703	92	62
93	63	2·052	1·592	2·028	1·575	2·005	1·558	93	63
94	64	1·903	1·451	1·882	1·436	1·861	1·421	94	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 30 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
95	65	1·759	1·319	1·740	1·306	1·722	1·293	95	65
96	66	1·628	1·194	1·612	1·183	1·596	1·171	96	66
97	67	1·498	1·077	1·484	1·067	1·469	1·058	97	67
98	68	1·380	·973	1·368	·965	1·355	·956	98	68
99	69	1·252	·864	1·242	·857	1·231	·850	99	69
100	70	...	·779	...	·773	...	·767	100	70
101	71	...	·664	...	·659	...	·655	101	71
102	72	...	·515	...	·512	...	·509	102	72
103	73	...	·361	...	·359	...	·358	103	73

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 35 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
55	20	13·692	...	13·018	...	12·394	...	55	20
56	21	13·364	...	12·721	...	12·126	...	56	21
57	22	13·028	...	12·416	...	11·851	...	57	22
58	23	12·684	...	12·104	...	11·566	...	58	23
59	24	12·333	...	11·784	...	11·274	...	59	24
60	25	11·975	11·537	11·456	11·039	10·973	10·574	60	25
61	26	11·610	11·174	11·121	10·705	10·665	10·267	61	26
62	27	11·239	10·806	10·779	10·365	10·350	9·954	62	27
63	28	10·863	10·432	10·432	10·020	10·028	9·633	63	28
64	29	10·483	10·054	10·080	9·668	9·701	9·306	64	29
65	30	10·101	9·671	9·724	9·312	9·371	8·975	65	30
66	31	9·717	9·288	9·367	8·954	9·037	8·640	66	31
67	32	9·334	8·904	9·008	8·595	8·701	8·303	67	32
68	33	8·953	8·520	8·651	8·235	8·366	7·964	68	33
69	34	8·575	8·140	8·296	7·876	8·032	7·626	69	34
70	35	8·202	7·763	7·944	7·520	7·700	7·290	70	35
71	36	7·834	7·391	7·597	7·169	7·372	6·957	71	36
72	37	7·474	7·026	7·256	6·822	7·048	6·629	72	37
73	38	7·120	6·668	6·921	6·482	6·730	6·305	73	38
74	39	6·776	6·318	6·593	6·148	6·418	5·987	74	39
75	40	6·440	5·977	6·273	5·823	6·113	5·676	75	40
76	41	6·114	5·646	5·961	5·506	5·815	5·373	76	41
77	42	5·798	5·325	5·659	5·199	5·525	5·077	77	42
78	43	5·491	5·013	5·365	4·899	5·244	4·790	78	43
79	44	5·195	4·713	5·080	4·610	4·970	4·512	79	44
80	45	4·909	4·423	4·805	4·331	4·705	4·243	80	45
81	46	4·633	4·145	4·539	4·062	4·449	3·983	81	46
82	47	4·368	3·877	4·283	3·803	4·201	3·732	82	47
83	48	4·113	3·620	4·037	3·554	3·963	3·491	83	48
84	49	3·868	3·374	3·799	3·316	3·733	3·259	84	49
85	50	3·633	3·139	3·571	3·087	3·512	3·037	85	50
86	51	3·409	2·915	3·353	2·869	3·300	2·824	86	51
87	52	3·194	2·702	3·144	2·661	3·096	2·621	87	52
88	53	2·988	2·499	2·944	2·463	2·901	2·428	88	53
89	54	2·793	2·307	2·753	2·275	2·715	2·244	89	54
90	55	2·605	2·124	2·570	2·097	2·536	2·070	90	55
91	56	2·428	1·952	2·397	1·928	2·366	1·905	91	56
92	57	2·259	1·790	2·232	1·768	2·204	1·748	92	57
93	58	2·098	1·636	2·073	1·618	2·049	1·600	93	58
94	59	1·947	1·492	1·925	1·476	1·904	1·461	94	59
95	60	1·801	1·357	1·781	1·344	1·762	1·330	95	60
96	61	1·668	1·230	1·651	1·218	1·634	1·206	96	61
97	62	1·535	1·110	1·520	1·100	1·505	1·090	97	62
98	63	1·415	1·004	1·402	·995	1·389	·987	98	63
99	64	1·284	·893	1·273	·885	1·262	·878	99	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 35 YEARS OLDER.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
100	65	...	·805	...	·799	...	·793	100	65
101	66	...	·685	...	·681	...	·676	101	66
102	67	...	·531	...	·528	...	·524	102	67
103	68	...	·370	...	·369	...	·367	103	68

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 40 YEARS OLDER.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
60	20	12·059	...	11·533	...	11·044	...	60	20
61	21	11·693	...	11·198	...	10·736	...	61	21
62	22	11·322	...	10·856	...	10·421	...	62	22
63	23	10·945	...	10·509	...	10·099	...	63	23
64	24	10·565	...	10·156	...	9·772	...	64	24
65	25	10·182	9·754	9·800	9·389	9·441	9·046	65	25
66	26	9·797	9·369	9·441	9·030	9·107	8·711	66	26
67	27	9·413	8·984	9·082	8·669	8·770	8·373	67	27
68	28	9·031	8·599	8·724	8·309	8·434	8·034	68	28
69	29	8·652	8·217	8·368	7·949	8·099	7·695	69	29
70	30	8·277	7·839	8·015	7·592	7·767	7·358	70	30
71	31	7·907	7·465	7·666	7·239	7·437	7·024	71	31
72	32	7·545	7·099	7·323	6·891	7·113	6·694	72	32
73	33	7·190	6·739	6·987	6·549	6·793	6·369	73	33
74	34	6·844	6·387	6·657	6·214	6·480	6·050	74	34
75	35	6·506	6·044	6·336	5·887	6·173	5·737	75	35
76	36	6·178	5·711	6·023	5·569	5·874	5·433	76	36
77	37	5·860	5·388	5·718	5·259	5·582	5·136	77	37
78	38	5·551	5·074	5·422	4·958	5·299	4·847	78	38
79	39	5·253	4·772	5·136	4·667	5·024	4·566	79	39
80	40	4·965	4·480	4·859	4·386	4·757	4·295	80	40
81	41	4·687	4·199	4·591	4·115	4·499	4·033	81	41
82	42	4·419	3·929	4·333	3·854	4·250	3·781	82	42
83	43	4·162	3·670	4·085	3·603	4·010	3·538	83	43
84	44	3·916	3·422	3·846	3·362	3·778	3·304	84	44
85	45	3·679	3·185	3·616	3·132	3·555	3·080	85	45
86	46	3·452	2·959	3·396	2·912	3·341	2·866	86	46
87	47	3·235	2·743	3·185	2·701	3·136	2·661	87	47
88	48	3·028	2·538	2·983	2·502	2·939	2·466	88	48
89	49	2·831	2·344	2·790	2·312	2·751	2·280	89	49
90	50	2·642	2·159	2·606	2·131	2·570	2·103	90	50
91	51	2·463	1·986	2·431	1·961	2·399	1·937	91	51
92	52	2·292	1·821	2·264	1·799	2·236	1·778	92	52
93	53	2·129	1·666	2·104	1·647	2·079	1·629	93	53
94	54	1·976	1·520	1·954	1·504	1·932	1·488	94	54
95	55	1·828	1·383	1·809	1·369	1·789	1·355	95	55
96	56	1·694	1·254	1·677	1·242	1·659	1·230	96	56
97	57	1·560	1·133	1·544	1·122	1·529	1·112	97	57
98	58	1·438	1·025	1·425	1·016	1·411	1·007	98	58
99	59	1·305	·912	1·293	·904	1·282	·896	99	59
100	60	...	·822	...	·816	...	·809	100	60
101	61	...	·700	...	·695	...	·690	101	61
102	62	...	·541	...	·538	...	·535	102	62
103	63	...	·377	...	·375	...	·373	103	63

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
FEMALE 45 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Female.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
65	20	10·235	...	9·849	...	9·487	...	65	20
66	21	9·850	...	9·491	...	9·152	...	66	21
67	22	9·465	...	9·131	...	8·816	...	67	22
68	23	9·082	...	8·772	...	8·480	...	68	23
69	24	8·702	...	8·415	...	8·144	...	69	24
70	25	8·326	7·889	8·061	7·639	7·810	7·403	70	25
71	26	7·955	7·514	7·712	7·285	7·480	7·068	71	26
72	27	7·592	7·146	7·368	6·937	7·155	6·737	72	27
73	28	7·236	6·785	7·030	6·594	6·834	6·411	73	28
74	29	6·888	6·432	6·700	6·258	6·520	6·091	74	29
75	30	6·550	6·088	6·377	5·929	6·212	5·778	75	30
76	31	6·220	5·754	6·063	5·610	5·912	5·472	76	31
77	32	5·900	5·429	5·757	5·299	5·620	5·174	77	32
78	33	5·590	5·114	5·460	4·996	5·335	4·884	78	33
79	34	5·291	4·811	5·173	4·704	5·059	4·602	79	34
80	35	5·001	4·517	4·894	4·422	4·791	4·330	80	35
81	36	4·723	4·235	4·626	4·150	4·532	4·067	81	36
82	37	4·454	3·964	4·366	3·887	4·282	3·813	82	37
83	38	4·195	3·703	4·116	3·635	4·040	3·569	83	38
84	39	3·947	3·454	3·876	3·393	3·807	3·334	84	39
85	40	3·709	3·215	3·645	3·161	3·583	3·109	85	40
86	41	3·481	2·987	3·424	2·939	3·368	2·893	86	41
87	42	3·263	2·770	3·212	2·728	3·162	2·687	87	42
88	43	3·054	2·564	3·009	2·527	2·964	2·491	88	43
89	44	2·856	2·369	2·815	2·336	2·775	2·304	89	44
90	45	2·666	2·183	2·629	2·154	2·593	2·126	90	45
91	46	2·486	2·008	2·453	1·983	2·421	1·958	91	46
92	47	2·314	1·842	2·285	1·820	2·257	1·798	92	47
93	48	2·150	1·686	2·124	1·666	2·099	1·648	93	48
94	49	1·996	1·538	1·973	1·522	1·951	1·505	94	49
95	50	1·847	1·401	1·827	1·386	1·807	1·372	95	50
96	51	1·712	1·270	1·694	1·258	1·676	1·246	96	51
97	52	1·576	1·148	1·561	1·137	1·545	1·127	97	52
98	53	1·453	1·039	1·440	1·030	1·426	1·020	98	53
99	54	1·319	·924	1·307	·916	1·295	·909	99	54
100	55	...	·833	...	·827	...	·820	100	55
101	56	...	·709	...	·704	...	·699	101	56
102	57	...	·548	...	·545	...	·541	102	57
103	58	...	·381	...	·379	...	·377	103	58

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 50 YEARS OLDER.

Age.		2½%		3%		3½%		Age.	
Female.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Female.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
70	20	8·358	...	8·092	...	7·839	...	70	20
71	21	7·987	...	7·741	...	7·508	...	71	21
72	22	7·623	...	7·397	...	7·182	...	72	22
73	23	7·266	...	7·059	...	6·861	...	73	23
74	24	6·918	...	6·727	...	6·546	...	74	24
75	25	6·578	6·117	6·404	5·957	6·238	5·804	75	25
76	26	6·247	5·782	6·089	5·636	5·937	5·497	76	26
77	27	5·927	5·456	5·782	5·325	5·644	5·199	77	27
78	28	5·616	5·141	5·485	5·022	5·359	4·908	78	28
79	29	5·316	4·836	5·197	4·729	5·082	4·626	79	29
80	30	5·026	4·542	4·918	4·445	4·814	4·353	80	30
81	31	4·746	4·258	4·648	4·172	4·554	4·089	81	31
82	32	4·476	3·986	4·388	3·909	4·302	3·834	82	32
83	33	4·217	3·725	4·137	3·656	4·060	3·589	83	33
84	34	3·968	3·474	3·896	3·413	3·827	3·353	84	34
85	35	3·729	3·235	3·664	3·180	3·602	3·127	85	35
86	36	3·500	3·006	3·442	2·958	3·386	2·911	86	36
87	37	3·281	2·788	3·230	2·746	3·179	2·704	87	37
88	38	3·072	2·581	3·026	2·544	2·980	2·507	88	38
89	39	2·872	2·385	2·831	2·352	2·791	2·319	89	39
90	40	2·681	2·198	2·644	2·169	2·608	2·140	90	40
91	41	2·500	2·022	2·468	1·997	2·436	1·972	91	41
92	42	2·328	1·855	2·299	1·833	2·270	1·811	92	42
93	43	2·163	1·698	2·137	1·679	2·112	1·660	93	43
94	44	2·009	1·551	1·986	1·534	1·963	1·517	94	44
95	45	1·859	1·412	1·839	1·397	1·819	1·383	95	45
96	46	1·723	1·281	1·705	1·268	1·687	1·256	96	46
97	47	1·587	1·158	1·571	1·147	1·556	1·136	97	47
98	48	1·463	1·048	1·450	1·038	1·436	1·029	98	48
99	49	1·328	·932	1·316	·924	1·304	·917	99	49
100	50	...	·841	...	·834	...	·828	100	50
101	51	...	·715	...	·710	...	·705	101	51
102	52	...	·553	...	·549	...	·546	102	52
103	53	...	·383	...	·381	...	·379	103	53

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1:

FEMALE 55 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female.	Male.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Female.	Male.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
75	20	6·596	...	6·422	...	6·255	...	75	20
76	21	6·265	...	6·106	...	5·954	...	76	21
77	22	5·944	...	5·799	...	5·660	...	77	22
78	23	5·633	...	5·501	...	5·374	...	78	23
79	24	5·332	...	5·212	...	5·097	...	79	24
80	25	5·041	4·557	4·933	4·461	4·828	4·368	80	25
81	26	4·761	4·274	4·663	4·187	4·568	4·103	81	26
82	27	4·490	4·001	4·402	3·923	4·316	3·848	82	27
83	28	4·231	3·739	4·151	3·670	4·073	3·603	83	28
84	29	3·981	3·488	3·909	3·426	3·840	3·366	84	29
85	30	3·742	3·248	3·677	3·193	3·614	3·140	85	30
86	31	3·512	3·018	3·454	2·970	3·398	2·923	86	31
87	32	3·293	2·800	3·241	2·757	3·190	2·715	87	32
88	33	3·083	2·592	3·036	2·555	2·991	2·517	88	33
89	34	2·883	2·395	2·841	2·362	2·801	2·329	89	34
90	35	2·691	2·208	2·654	2·179	2·618	2·150	90	35
91	36	2·510	2·032	2·477	2·006	2·445	1·981	91	36
92	37	2·337	1·864	2·308	1·842	2·279	1·820	92	37
93	38	2·172	1·707	2·146	1·687	2·120	1·668	93	38
94	39	2·017	1·558	1·994	1·541	1·971	1·525	94	39
95	40	1·867	1·419	1·846	1·404	1·826	1·390	95	40
96	41	1·730	1·288	1·712	1·275	1·695	1·262	96	41
97	42	1·594	1·164	1·578	1·153	1·562	1·142	97	42
98	43	1·470	1·054	1·456	1·044	1·442	1·035	98	43
99	44	1·334	·938	1·322	·930	1·310	·922	99	44
100	45	...	·845	...	·839	...	·832	100	45
101	46	...	·719	...	·714	...	·709	101	46
102	47	...	·555	...	·552	...	·549	102	47
103	48	...	·385	...	·383	...	·381	103	48

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
FEMALE 60 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
80	20	5·051	...	4·942	...	4·838	...	80	20
81	21	4·771	...	4·672	...	4·577	...	81	21
82	22	4·500	...	4·411	...	4·325	...	82	22
83	23	4·240	...	4·160	...	4·082	...	83	23
84	24	3·990	...	3·918	...	3·848	...	84	24
85	25	3·750	3·256	3·685	3·201	3·622	3·148	85	25
86	26	3·520	3·026	3·462	2·978	3·405	2·930	86	26
87	27	3·301	2·808	3·248	2·764	3·198	2·723	87	27
88	28	3·090	2·600	3·043	2·562	2·998	2·524	88	28
89	29	2·890	2·402	2·848	2·369	2·808	2·336	89	29
90	30	2·698	2·214	2·661	2·185	2·624	2·156	90	30
91	31	2·516	2·038	2·483	2·012	2·451	1·987	91	31
92	32	2·343	1·870	2·314	1·847	2·285	1·825	92	32
93	33	2·178	1·712	2·152	1·692	2·126	1·673	93	33
94	34	2·022	1·563	1·999	1·546	1·976	1·530	94	34
95	35	1·872	1·424	1·851	1·409	1·831	1·395	95	35
96	36	1·735	1·292	1·717	1·279	1·699	1·267	96	36
97	37	1·598	1·168	1·582	1·157	1·567	1·146	97	37
98	38	1·474	1·058	1·460	1·048	1·446	1·039	98	38
99	39	1·337	·941	1·326	·933	1·314	·925	99	39
100	40	...	·849	...	·842	...	·835	100	40
101	41	...	·722	...	·717	...	·712	101	41
102	42	...	·557	...	·554	...	·550	102	42
103	43	...	·386	...	·384	...	·382	103	43

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 65 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
85	20	3·755	...	3·690	...	3·627	...	85	20
86	21	3·526	...	3·467	...	3·410	...	86	21
87	22	3·306	...	3·253	...	3·202	...	87	22
88	23	3·095	...	3·048	...	3·002	...	88	23
89	24	2·895	...	2·853	...	2·812	...	89	24
90	25	2·702	2·219	2·665	2·189	2·629	2·160	90	25
91	26	2·521	2·042	2·487	2·016	2·455	1·991	91	26
92	27	2·347	1·874	2·318	1·851	2·289	1·829	92	27
93	28	2·181	1·716	2·155	1·696	2·129	1·677	93	28
94	29	2·026	1·567	2·002	1·550	1·980	1·533	94	29
95	30	1·875	1·427	1·855	1·412	1·834	1·398	95	30
96	31	1·738	1·295	1·720	1·282	1·702	1·270	96	31
97	32	1·601	1·171	1·585	1·160	1·570	1·149	97	32
98	33	1·477	1·060	1·463	1·051	1·449	1·041	98	33
99	34	1·340	·943	1·328	·935	1·316	·928	99	34
100	35	...	·851	...	·844	...	·837	100	35
101	36	...	·724	...	·718	...	·713	101	36
102	37	...	·559	...	·555	...	·552	102	37
103	38	...	·387	...	·385	...	·383	103	38

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

FEMALE 70 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
90	20	2·705	...	2·668	...	2·631	...	90	20
91	21	2·523	...	2·490	...	2·457	...	91	21
92	22	2·350	...	2·320	...	2·291	...	92	22
93	23	2·184	...	2·157	...	2·132	...	93	23
94	24	2·028	...	2·005	...	1·982	...	94	24
95	25	1·877	1·429	1·857	1·414	1·836	1·399	95	25
96	26	1·740	1·297	1·722	1·284	1·704	1·271	96	26
97	27	1·603	1·172	1·587	1·161	1·571	1·151	97	27
98	28	1·479	1·062	1·465	1·052	1·451	1·043	98	28
99	29	1·341	·945	1·330	·937	1·318	·929	99	29
100	30	...	·852	...	·845	...	·839	100	30
101	31	...	·725	...	·719	...	·714	101	31
102	32	...	·559	...	·556	...	·552	102	32
103	33	...	·387	...	·385	...	·383	103	33

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
FEMALE 75 YEARS OLDER.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
95	20	1·879	...	1·858	...	1·838	...	95	20
96	21	1·742	...	1·723	...	1·705	...	96	21
97	22	1·605	...	1·588	...	1·573	...	97	22
98	23	1·480	...	1·466	...	1·452	...	98	23
99	24	1·343	...	1·331	...	1·319	...	99	24
100	25	...	·853	...	·846	...	·840	100	25
101	26	...	·725	...	·720	...	·715	101	26
102	27	...	·560	...	·556	...	·553	102	27
103	28	...	·387	...	·386	...	·384	103	28

BRITISH OFFICES LIFE ANNUITY TABLES, 1893.

VALUES OF ANNUITIES ON TWO JOINT LIVES.

MALE AND FEMALE

(MALE THE ELDER).

$2\frac{1}{2}$, 3, and $3\frac{1}{2}$ per cent.

SELECT AND ULTIMATE VALUES.

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 0 YEARS.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
20	20	20·671	...	19·092	...	17·706	...	20	20
21	21	20·452	...	18·910	...	17·553	...	21	21
22	22	20·231	...	18·723	...	17·394	...	22	22
23	23	20·000	...	18·531	...	17·232	...	23	23
24	24	19·765	...	18·331	...	17·062	...	24	24
25	25	19·524	19·132	18·126	17·764	16·887	16·551	25	25
26	26	19·276	18·885	17·915	17·553	16·707	16·370	26	26
27	27	19·023	18·632	17·699	17·336	16·521	16·184	27	27
28	28	18·765	18·373	17·478	17·114	16·330	15·992	28	28
29	29	18·502	18·108	17·251	16·886	16·135	15·794	29	29
30	30	18·234	17·839	17·020	16·653	15·934	15·591	30	30
31	31	17·961	17·565	16·783	16·415	15·728	15·384	31	31
32	32	17·683	17·285	16·542	16·171	15·518	15·172	32	32
33	33	17·401	17·002	16·296	15·924	15·303	14·955	33	33
34	34	17·114	16·714	16·046	15·672	15·083	14·733	34	34
35	35	16·825	16·422	15·792	15·415	14·860	14·507	35	35
36	36	16·531	16·127	15·534	15·155	14·633	14·277	36	36
37	37	16·235	15·827	15·273	14·891	14·402	14·042	37	37
38	38	15·935	15·525	15·008	14·622	14·166	13·804	38	38
39	39	15·632	15·219	14·739	14·352	13·928	13·563	39	39
40	40	15·326	14·911	14·468	14·077	13·686	13·318	40	40
41	41	15·019	14·600	14·194	13·800	13·441	13·069	41	41
42	42	14·709	14·288	13·917	13·520	13·193	12·817	42	42
43	43	14·397	13·972	13·638	13·237	12·942	12·563	43	43
44	44	14·083	13·655	13·356	12·952	12·688	12·306	44	44
45	45	13·768	13·336	13·072	12·663	12·432	12·045	45	45
46	46	13·450	13·016	12·785	12·374	12·173	11·783	46	46
47	47	13·130	12·693	12·495	12·081	11·911	11·517	47	47
48	48	12·809	12·369	12·205	11·787	11·646	11·249	48	48
49	49	12·486	12·044	11·911	11·490	11·378	10·977	49	49
50	50	12·162	11·716	11·615	11·191	11·107	10·704	50	50
51	51	11·835	11·388	11·316	10·890	10·834	10·428	51	51
52	52	11·506	11·057	11·015	10·587	10·558	10·148	52	52
53	53	11·176	10·725	10·711	10·280	10·278	9·866	53	53
54	54	10·843	10·391	10·405	9·972	9·995	9·581	54	54
55	55	10·508	10·055	10·096	9·661	9·709	9·292	55	55
56	56	10·172	9·717	9·783	9·347	9·420	9·001	56	56
57	57	9·833	9·377	9·469	9·032	9·127	8·707	57	57
58	58	9·493	9·036	9·152	8·713	8·832	8·409	58	58
59	59	9·152	8·694	8·833	8·393	8·533	8·109	59	59
60	60	8·809	8·351	8·513	8·072	8·233	7·808	60	60
61	61	8·467	8·008	8·191	7·749	7·931	7·503	61	61
62	62	8·125	7·665	7·870	7·426	7·628	7·199	62	62
63	63	7·785	7·323	7·549	7·103	7·325	6·893	63	63
64	64	7·447	6·984	7·229	6·781	7·022	6·588	64	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

DIFFERENCE IN AGE 0 YEARS.

Age.		2½ %		3 %		3½ %		Age.	
Female. x	Male. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Female. x	Male. y
65	65	7·112	6·647	6·912	6·461	6·721	6·284	65	65
66	66	6·782	6·314	6·598	6·144	6·422	5·982	66	66
67	67	6·457	5·987	6·289	5·832	6·128	5·684	67	67
68	68	6·139	5·665	5·985	5·525	5·838	5·390	68	68
69	69	5·828	5·351	5·687	5·223	5·553	5·101	69	69
70	70	5·524	5·044	5·397	4·929	5·274	4·818	70	70
71	71	5·230	4·747	5·114	4·643	5·002	4·543	71	71
72	72	4·944	4·458	4·839	4·365	4·738	4·275	72	72
73	73	4·668	4·180	4·574	4·096	4·482	4·015	73	73
74	74	4·402	3·911	4·317	3·836	4·234	3·764	74	74
75	75	4·146	3·654	4·069	3·587	3·994	3·522	75	75
76	76	3·900	3·407	3·831	3·347	3·764	3·290	76	76
77	77	3·664	3·170	3·602	3·118	3·541	3·067	77	77
78	78	3·438	2·945	3·382	2·898	3·328	2·853	78	78
79	79	3·222	2·730	3·172	2·689	3·123	2·649	79	79
80	80	3·016	2·526	2·971	2·490	2·927	2·454	80	80
81	81	2·819	2·332	2·779	2·300	2·740	2·269	81	81
82	82	2·631	2·149	2·595	2·121	2·561	2·093	82	82
83	83	2·453	1·975	2·421	1·951	2·390	1·927	83	83
84	84	2·283	1·812	2·254	1·790	2·227	1·769	84	84
85	85	2·121	1·658	2·096	1·639	2·071	1·621	85	85
86	86	1·968	1·512	1·946	1·496	1·924	1·480	86	86
87	87	1·823	1·376	1·803	1·362	1·783	1·349	87	87
88	88	1·685	1·249	1·667	1·237	1·650	1·225	88	88
89	89	1·554	1·130	1·539	1·120	1·524	1·109	89	89
90	90	1·431	1·019	1·417	1·010	1·404	1·001	90	90
91	91	1·315	·916	1·303	·908	1·291	·900	91	91
92	92	1·205	·820	1·194	·813	1·184	·806	92	92
93	93	1·101	·731	1·092	·725	1·083	·719	93	93
94	94	1·004	·649	·996	·644	·988	·639	94	94
95	95	·912	·573	·905	·569	·898	·565	95	95
96	96	·827	·503	·821	·500	·815	·496	96	96
97	97	·746	·439	·741	·436	·735	·433	97	97
98	98	·672	·383	·667	·381	·663	·378	98	98
99	99	·602	·328	·598	·326	·594	·324	99	99
100	100	...	·287	...	·285	...	·284	100	100
101	101	...	·241	...	·240	...	·238	101	101
102	102	...	·187	...	·186	...	·185	102	102
103	103	...	·144	...	·144	...	·143	103	103

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 5 YEARS OLDER.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
25	20	20·006	...	18·538	...	17·240	...	25	20
26	21	19·772	...	18·339	...	17·071	...	26	21
27	22	19·530	...	18·135	...	16·896	...	27	22
28	23	19·284	...	17·924	...	16·717	...	28	23
29	24	19·030	...	17·708	...	16·531	...	29	24
30	25	18·771	18·387	17·486	17·129	16·340	16·007	30	25
31	26	18·506	18·121	17·257	16·900	16·142	15·810	31	26
32	27	18·235	17·850	17·024	16·666	15·940	15·606	32	27
33	28	17·959	17·573	16·785	16·426	15·732	15·396	33	28
34	29	17·677	17·291	16·540	16·180	15·519	15·181	34	29
35	30	17·392	17·004	16·291	15·928	15·300	14·961	35	30
36	31	17·101	16·711	16·036	15·672	15·077	14·736	36	31
37	32	16·805	16·414	15·777	15·411	14·849	14·506	37	32
38	33	16·506	16·113	15·514	15·146	14·616	14·271	38	33
39	34	16·203	15·808	15·246	14·876	14·380	14·032	39	34
40	35	15·896	15·499	14·975	14·602	14·139	13·788	40	35
41	36	15·586	15·187	14·700	14·325	13·894	13·540	41	36
42	37	15·274	14·871	14·422	14·043	13·646	13·288	42	37
43	38	14·958	14·553	14·140	13·758	13·393	13·033	43	38
44	39	14·640	14·231	13·855	13·470	13·138	12·774	44	39
45	40	14·320	13·908	13·568	13·180	12·880	12·513	45	40
46	41	13·998	13·583	13·279	12·887	12·619	12·248	46	41
47	42	13·674	13·257	12·987	12·592	12·355	11·981	47	42
48	43	13·350	12·928	12·694	12·294	12·090	11·710	48	43
49	44	13·024	12·599	12·398	11·995	11·821	11·437	49	44
50	45	12·697	12·268	12·101	11·694	11·551	11·163	50	45
51	46	12·369	11·937	11·802	11·391	11·278	10·887	51	46
52	47	12·041	11·605	11·503	11·088	11·003	10·608	52	47
53	48	11·712	11·272	11·201	10·782	10·727	10·327	53	48
54	49	11·382	10·940	10·899	10·477	10·449	10·045	54	49
55	50	11·052	10·607	10·595	10·169	10·169	9·762	55	50
56	51	10·722	10·273	10·291	9·861	9·888	9·476	56	51
57	52	10·392	9·940	9·985	9·552	9·604	9·190	57	52
58	53	10·061	9·606	9·678	9·242	9·320	8·901	58	53
59	54	9·730	9·272	9·371	8·931	9·033	8·611	59	54
60	55	9·398	8·938	9·062	8·620	8·745	8·320	60	55
61	56	9·067	8·605	8·752	8·308	8·456	8·028	61	56
62	57	8·736	8·272	8·442	7·996	8·165	7·735	62	57
63	58	8·405	7·940	8·132	7·683	7·873	7·440	63	58
64	59	8·075	7·608	7·821	7·371	7·581	7·145	64	59
65	60	7·747	7·278	7·512	7·059	7·289	6·851	65	60
66	61	7·421	6·950	7·203	6·748	6·997	6·556	66	61
67	62	7·097	6·625	6·896	6·439	6·706	6·263	67	62
68	63	6·777	6·303	6·592	6·133	6·417	5·970	68	63
69	64	6·461	5·984	6·292	5·829	6·130	5·681	69	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 5 YEARS OLDER.

Age.		2½%		3%		3½%		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
70	65	6·149	5·671	5·995	5·530	5·847	5·394	70	65
71	66	5·844	5·363	5·703	5·235	5·567	5·112	71	66
72	67	5·546	5·062	5·417	4·946	5·293	4·835	72	67
73	68	5·254	4·769	5·137	4·664	5·025	4·563	73	68
74	69	4·971	4·483	4·865	4·389	4·763	4·298	74	69
75	70	4·697	4·207	4·601	4·122	4·508	4·040	75	70
76	71	4·431	3·939	4·345	3·864	4·261	3·790	76	71
77	72	4·175	3·682	4·097	3·614	4·021	3·549	77	72
78	73	3·929	3·435	3·858	3·374	3·790	3·316	78	73
79	74	3·692	3·198	3·629	3·144	3·567	3·092	79	74
80	75	3·465	2·971	3·408	2·924	3·353	2·878	80	75
81	76	3·248	2·755	3·197	2·713	3·148	2·673	81	76
82	77	3·040	2·550	2·995	2·513	2·951	2·477	82	77
83	78	2·842	2·355	2·802	2·323	2·762	2·291	83	78
84	79	2·654	2·171	2·617	2·142	2·582	2·114	84	79
85	80	2·474	1·996	2·441	1·971	2·410	1·946	85	80
86	81	2·303	1·831	2·274	1·809	2·246	1·788	86	81
87	82	2·140	1·676	2·115	1·657	2·090	1·638	87	82
88	83	1·986	1·530	1·963	1·513	1·941	1·497	88	83
89	84	1·840	1·393	1·820	1·378	1·800	1·364	89	84
90	85	1·701	1·264	1·683	1·252	1·666	1·240	90	85
91	86	1·570	1·144	1·554	1·133	1·539	1·123	91	86
92	87	1·446	1·032	1·432	1·023	1·418	1·014	92	87
93	88	1·328	·928	1·316	·920	1·304	·912	93	88
94	89	1·218	·831	1·207	·824	1·197	·818	94	89
95	90	1·113	·741	1·104	·735	1·095	·730	95	90
96	91	1·015	·658	1·007	·653	·999	·649	96	91
97	92	·923	·582	·916	·578	·909	·574	97	92
98	93	·836	·512	·830	·508	·823	·505	98	93
99	94	·754	·447	·749	·444	·744	·441	99	94
100	95	...	·388	...	·386	...	·383	100	95
101	96	...	·333	...	·331	...	·329	101	96
102	97	...	·277	...	·275	...	·274	102	97
103	98	...	·203	...	·202	...	·201	103	98

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 10 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male.	Female.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Female.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
30	20	19·173	...	17·832	...	16·639	...	30	20
31	21	18·917	...	17·613	...	16·452	...	31	21
32	22	18·654	...	17·388	...	16·258	...	32	22
33	23	18·387	...	17·158	...	16·059	...	33	23
34	24	18·113	...	16·921	...	15·853	...	34	24
35	25	17·833	17·456	16·678	16·326	15·642	15·313	35	25
36	26	17·547	17·170	16·430	16·077	15·425	15·095	36	26
37	27	17·256	16·878	16·176	15·822	15·202	14·871	37	27
38	28	16·960	16·581	15·916	15·561	14·974	14·641	38	28
39	29	16·659	16·279	15·652	15·295	14·741	14·407	39	29
40	30	16·353	15·971	15·382	15·024	14·502	14·166	40	30
41	31	16·043	15·660	15·108	14·748	14·259	13·921	41	31
42	32	15·729	15·343	14·830	14·467	14·012	13·670	42	32
43	33	15·412	15·025	14·547	14·183	13·760	13·416	43	33
44	34	15·091	14·701	14·261	13·894	13·504	13·157	44	34
45	35	14·767	14·374	13·971	13·601	13·245	12·894	45	35
46	36	14·441	14·045	13·679	13·305	12·981	12·628	46	36
47	37	14·112	13·713	13·383	13·006	12·714	12·357	47	37
48	38	13·782	13·379	13·085	12·704	12·445	12·084	48	38
49	39	13·449	13·043	12·784	12·399	12·172	11·807	49	39
0	40	13·115	12·706	12·482	12·093	11·898	11·528	50	40
1	41	12·781	12·368	12·178	11·786	11·620	11·247	51	41
2	42	12·446	12·029	11·873	11·476	11·342	10·964	52	42
53	43	12·111	11·689	11·566	11·165	11·062	10·679	53	43
54	44	11·776	11·350	11·260	10·854	10·780	10·393	54	44
55	45	11·441	11·011	10·952	10·541	10·497	10·105	55	45
56	46	11·107	10·673	10·644	10·229	10·213	9·817	56	46
57	47	10·773	10·335	10·336	9·917	9·929	9·527	57	47
58	48	10·441	9·998	10·029	9·605	9·644	9·238	58	48
59	49	10·109	9·662	9·722	9·293	9·358	8·947	59	49
60	50	9·779	9·328	9·415	8·982	9·073	8·657	60	50
61	51	9·450	8·995	9·108	8·672	8·787	8·367	61	51
62	52	9·123	8·664	8·803	8·362	8·501	8·077	62	52
63	53	8·797	8·335	8·498	8·054	8·216	7·787	63	53
64	54	8·473	8·008	8·194	7·746	7·931	7·498	64	54
65	55	8·152	7·683	7·892	7·440	7·646	7·210	65	55
66	56	7·832	7·361	7·591	7·136	7·362	6·922	66	56
67	57	7·515	7·041	7·292	6·833	7·080	6·636	67	57
68	58	7·202	6·725	6·995	6·533	6·798	6·351	68	58
69	59	6·891	6·412	6·700	6·235	6·518	6·067	69	59
70	60	6·583	6·102	6·408	5·941	6·240	5·787	70	60
71	61	6·280	5·797	6·119	5·649	5·965	5·508	71	61
72	62	5·982	5·496	5·834	5·362	5·693	5·233	72	62
73	63	5·689	5·201	5·554	5·079	5·424	4·962	73	63
74	64	5·401	4·912	5·278	4·801	5·160	4·695	74	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 10 YEARS OLDER.

Age.		2½%		3%		3½%		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
75	65	5·121	4·629	5·008	4·529	4·901	4·433	75	65
76	66	4·846	4·354	4·745	4·264	4·647	4·177	76	66
77	67	4·580	4·087	4·488	4·006	4·400	3·928	77	67
78	68	4·322	3·828	4·239	3·755	4·159	3·685	78	68
79	69	4·073	3·577	3·998	3·513	3·925	3·450	79	69
80	70	3·832	3·337	3·765	3·279	3·699	3·223	80	70
81	71	3·601	3·106	3·540	3·055	3·481	3·005	81	71
82	72	3·379	2·885	3·325	2·840	3·272	2·796	82	72
83	73	3·166	2·674	3·117	2·634	3·070	2·595	83	73
84	74	2·962	2·473	2·919	2·438	2·876	2·404	84	74
85	75	2·768	2·282	2·729	2·251	2·691	2·221	85	75
86	76	2·583	2·102	2·548	2·075	2·514	2·048	86	76
87	77	2·407	1·931	2·376	1·907	2·346	1·884	87	77
88	78	2·239	1·770	2·212	1·749	2·185	1·729	88	78
89	79	2·080	1·618	2·055	1·600	2·031	1·582	89	79
90	80	1·928	1·476	1·907	1·460	1·886	1·445	90	80
91	81	1·785	1·342	1·766	1·328	1·747	1·315	91	81
92	82	1·649	1·217	1·633	1·205	1·616	1·194	92	82
93	83	1·521	1·100	1·506	1·090	1·491	1·080	93	83
94	84	1·400	·991	1·386	·982	1·374	·974	94	84
95	85	1·285	·890	1·273	·882	1·262	·875	95	85
96	86	1·177	·795	1·167	·789	1·157	·783	96	86
97	87	1·075	·708	1·066	·703	1·057	·697	97	87
98	88	·978	·628	·970	·623	·963	·619	98	88
99	89	·887	·553	·880	·549	·874	·546	99	89
100	90	...	·484	...	·481	...	·478	100	90
101	91	...	·418	...	·416	...	·413	101	91
102	92	...	·349	...	·347	...	·345	102	92
103	93	...	·249	...	·248	...	·247	103	93

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 15 YEARS OLDER.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Male.	Female.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Female.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
35	20	18·159	...	16·962	...	15·890	...	35	20
36	21	17·880	...	16·721	...	15·681	...	36	21
37	22	17·595	...	16·473	...	15·465	...	37	22
38	23	17·305	...	16·220	...	15·243	...	38	23
39	24	17·009	...	15·961	...	15·016	...	39	24
40	25	16·707	16·336	15·696	15·349	14·782	14·456	40	25
41	26	16·400	16·028	15·426	15·078	14·543	14·216	41	26
42	27	16·088	15·715	15·150	14·800	14·299	13·970	42	27
43	28	15·772	15·397	14·870	14·518	14·049	13·718	43	28
44	29	15·451	15·074	14·585	14·230	13·795	13·462	44	29
45	30	15·126	14·748	14·295	13·938	13·536	13·200	45	30
46	31	14·798	14·418	14·001	13·642	13·273	12·934	46	31
47	32	14·466	14·083	13·703	13·342	13·005	12·663	47	32
48	33	14·132	13·746	13·402	13·038	12·734	12·388	48	33
49	34	13·794	13·405	13·098	12·730	12·458	12·110	49	34
50	35	13·455	13·063	12·792	12·421	12·180	11·828	50	35
51	36	13·115	12·720	12·483	12·108	11·900	11·543	51	36
52	37	12·774	12·374	12·172	11·793	11·617	11·256	52	37
53	38	12·431	12·027	11·860	11·476	11·331	10·966	53	38
	39	12·088	11·680	11·546	11·158	11·043	10·674	54	39
	40	11·745	11·333	11·232	10·840	10·755	10·381	55	40
	41	11·403	10·987	10·917	10·520	10·465	10·086	56	41
	42	11·061	10·641	10·603	10·200	10·175	9·790	57	42
	43	10·721	10·295	10·288	9·881	9·884	9·494	58	43
	44	10·382	9·952	9·975	9·562	9·593	9·198	59	44
60	45	10·045	9·610	9·662	9·244	9·303	8·902	60	45
61	46	9·711	9·270	9·351	8·928	9·013	8·606	61	46
62	47	9·378	8·933	9·041	8·613	8·724	8·312	62	47
63	48	9·049	8·599	8·734	8·300	8·436	8·018	63	48
64	49	8·723	8·268	8·428	7·989	8·149	7·727	64	49
65	50	8·400	7·940	8·124	7·681	7·864	7·436	65	50
66	51	8·080	7·616	7·824	7·376	7·581	7·148	66	51
67	52	7·764	7·296	7·526	7·073	7·300	6·862	67	52
68	53	7·453	6·980	7·231	6·774	7·021	6·579	68	53
69	54	7·145	6·668	6·940	6·478	6·745	6·298	69	54
70	55	6·841	6·361	6·652	6·186	6·471	6·020	70	55
71	56	6·541	6·058	6·367	5·898	6·200	5·745	71	56
72	57	6·247	5·761	6·087	5·614	5·933	5·474	72	57
73	58	5·957	5·468	5·810	5·334	5·669	5·206	73	58
74	59	5·673	5·181	5·538	5·059	5·409	4·943	74	59
75	60	5·395	4·901	5·271	4·790	5·153	4·684	75	60
76	61	5·122	4·626	5·009	4·526	4·901	4·430	76	61
77	62	4·855	4·359	4·753	4·268	4·655	4·181	77	62
78	63	4·596	4·098	4·503	4·016	4·413	3·938	78	63
79	64	4·343	3·845	4·259	3·772	4·178	3·701	79	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 15 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
80	65	4·098	3·599	4·022	3·534	3·949	3·471	80	65
81	66	3·861	3·362	3·792	3·304	3·726	3·248	81	66
82	67	3·632	3·134	3·570	3·082	3·510	3·032	82	67
83	68	3·411	2·915	3·355	2·869	3·302	2·824	83	68
84	69	3·199	2·705	3·149	2·664	3·101	2·624	84	69
85	70	2·995	2·504	2·951	2·468	2·907	2·433	85	70
86	71	2·800	2·313	2·761	2·281	2·722	2·251	86	71
87	72	2·614	2·132	2·579	2·104	2·544	2·077	87	72
88	73	2·437	1·960	2·405	1·936	2·374	1·912	88	73
89	74	2·268	1·797	2·240	1·776	2·212	1·755	89	74
90	75	2·107	1·644	2·082	1·626	2·058	1·608	90	75
91	76	1·955	1·500	1·933	1·484	1·911	1·468	91	76
92	77	1·810	1·365	1·791	1·351	1·771	1·338	92	77
93	78	1·673	1·238	1·656	1·226	1·639	1·215	93	78
94	79	1·543	1·120	1·528	1·110	1·513	1·099	94	79
95	80	1·421	1·010	1·407	1·001	1·394	·992	95	80
96	81	1·305	·907	1·293	·899	1·281	·892	96	81
97	82	1·195	·811	1·185	·805	1·174	·798	97	82
98	83	1·091	·723	1·082	·717	1·073	·712	98	83
99	84	·992	·640	·984	·636	·977	·631	99	84
100	85	...	·563	...	·559	...	·555	100	85
101	86	...	·488	...	·485	...	·481	101	86
102	87	...	·406	...	·403	...	·401	102	87
103	88	...	·285	...	·283	...	·282	103	88

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 20 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
40	20	16·963	...	15·923	...	14·983	...	40	20
41	21	16·662	...	15·658	...	14·750	...	41	21
42	22	16·354	...	15·387	...	14·510	...	42	22
43	23	16·042	...	15·111	...	14·266	...	43	23
44	24	15·724	...	14·829	...	14·015	...	44	24
45	25	15·401	15·034	14·543	14·197	13·759	13·433	45	25
46	26	15·074	14·706	14·251	13·903	13·499	13·171	46	26
47	27	14·743	14·373	13·954	13·605	13·232	12·902	47	27
48	28	14·409	14·036	13·653	13·301	12·962	12·629	48	28
49	29	14·070	13·695	13·349	12·994	12·687	12·351	49	29
50	30	13·729	13·351	13·041	12·683	12·409	12·069	50	30
51	31	13·385	13·004	12·730	12·369	12·126	11·783	51	31
52	32	13·039	12·655	12·416	12·051	11·840	11·494	52	32
53	33	12·692	12·304	12·100	11·731	11·552	11·202	53	33
54	34	12·344	11·952	11·782	11·409	11·261	10·906	54	34
55	35	11·995	11·599	11·463	11·086	10·968	10·609	55	35
56	36	11·646	11·246	11·142	10·760	10·674	10·309	56	36
57	37	11·298	10·893	10·821	10·435	10·378	10·009	57	37
58	38	10·949	10·540	10·500	10·109	10·081	9·707	58	38
59	39	10·603	10·188	10·180	9·783	9·784	9·404	59	39
60	40	10·258	9·839	9·860	9·458	9·487	9·102	60	40
61	41	9·915	9·491	9·541	9·134	9·191	8·800	61	41
62	42	9·575	9·145	9·225	8·812	8·895	8·498	62	42
63	43	9·238	8·802	8·910	8·491	8·601	8·198	63	43
64	44	8·904	8·463	8·597	8·173	8·308	7·900	64	44
65	45	8·574	8·128	8·288	7·858	8·018	7·603	65	45
66	46	8·248	7·797	7·982	7·546	7·730	7·309	66	46
67	47	7·927	7·470	7·679	7·238	7·444	7·018	67	47
68	48	7·610	7·148	7·381	6·933	7·162	6·729	68	48
69	49	7·299	6·831	7·086	6·633	6·883	6·445	69	49
70	50	6·992	6·520	6·795	6·337	6·607	6·164	70	50
71	51	6·692	6·215	6·510	6·047	6·336	5·887	71	51
72	52	6·397	5·915	6·229	5·761	6·068	5·614	72	52
73	53	6·107	5·622	5·953	5·481	5·805	5·346	73	53
74	54	5·824	5·335	5·682	5·206	5·546	5·083	74	54
75	55	5·547	5·054	5·417	4·937	5·292	4·825	75	55
76	56	5·276	4·781	5·157	4·674	5·043	4·572	76	56
77	57	5·012	4·514	4·903	4·418	4·799	4·325	77	57
78	58	4·754	4·255	4·655	4·167	4·560	4·084	78	58
79	59	4·503	4·002	4·413	3·924	4·327	3·848	79	59
80	60	4·259	3·758	4·178	3·687	4·099	3·619	80	60
81	61	4·022	3·521	3·949	3·458	3·878	3·396	81	61
82	62	3·793	3·292	3·726	3·235	3·662	3·181	82	62
83	63	3·571	3·071	3·511	3·021	3·453	2·972	83	63
84	64	3·357	2·859	3·303	2·814	3·250	2·771	84	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 20 YEARS OLDER.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Male.	Female.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Female.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
85	65	3·150	2·655	3·102	2·615	3·055	2·577	85	65
86	66	2·952	2·460	2·908	2·425	2·866	2·391	86	66
87	67	2·761	2·274	2·722	2·243	2·685	2·213	87	67
88	68	2·579	2·096	2·544	2·069	2·510	2·043	88	68
89	69	2·404	1·928	2·374	1·904	2·344	1·881	89	69
90	70	2·238	1·768	2·211	1·748	2·184	1·727	90	70
91	71	2·080	1·618	2·055	1·600	2·031	1·582	91	71
92	72	1·929	1·476	1·907	1·460	1·886	1·445	92	72
93	73	1·786	1·342	1·767	1·329	1·748	1·316	93	73
94	74	1·650	1·217	1·633	1·206	1·617	1·194	94	74
95	75	1·522	1·101	1·507	1·090	1·492	1·080	95	75
96	76	1·400	·991	1·387	·983	1·374	·974	96	76
97	77	1·285	·890	1·273	·882	1·262	·875	97	77
98	78	1·175	·795	1·165	·789	1·155	·782	98	78
99	79	1·070	·707	1·062	·701	1·053	·696	99	79
100	80	...	·623	...	·618	...	·614	100	80
101	81	...	·540	...	·536	...	·533	101	81
102	82	...	·448	...	·445	...	·442	102	82
103	83	...	·310	...	·309	...	·307	103	83

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
MALE 25 YEARS OLDER.

Age. Male. x	Age. Female. y	$2\frac{1}{2}$%. At Date of Purchase. $a_{[xy]}$	$2\frac{1}{2}$%. After Five Years from Purchase. a_{xy}	3%. At Date of Purchase. $a_{[xy]}$	3%. After Five Years from Purchase. a_{xy}	$3\frac{1}{2}$%. At Date of Purchase. $a_{[xy]}$	$3\frac{1}{2}$%. After Five Years from Purchase. a_{xy}	Age. Male. x	Age. Female. y
45	20	15·598	...	14·719	...	13·917	...	45	20
46	21	15·275	...	14·430	...	13·660	...	46	21
47	22	14·947	...	14·137	...	13·397	...	47	22
48	23	14·615	...	13·840	...	13·131	...	48	23
49	24	14·278	...	13·537	...	12·858	...	49	24
50	25	13·938	13·569	13·231	12·883	12·581	12·252	50	25
51	26	13·594	13·224	12·921	12·570	12·300	11·967	51	26
52	27	13·248	12·875	12·607	12·253	12·014	11·679	52	27
53	28	12·899	12·524	12·289	11·932	11·727	11·386	53	28
54	29	12·549	12·170	11·971	11·610	11·435	11·091	54	29
55	30	12·197	11·814	11·649	11·284	11·140	10·793	55	30
56	31	11·845	11·458	11·325	10·957	10·844	10·492	56	31
57	32	11·492	11·100	11·002	10·628	10·545	10·188	57	32
58	33	11·139	10·743	10·677	10·298	10·245	9·884	58	33
59	34	10·787	10·387	10·351	9·968	9·944	9·577	59	34
60	35	10·437	10·031	10·026	9·638	9·643	9·270	60	35
61	36	10·087	9·677	9·702	9·309	9·341	8·964	61	36
62	37	9·741	9·324	9·380	8·980	9·040	8·657	62	37
63	38	9·396	8·974	9·058	8·653	8·740	8·351	63	38
64	39	9·055	8·628	8·739	8·328	8·442	8·046	64	39
65	40	8·718	8·285	8·423	8·007	8·145	7·744	65	40
66	41	8·385	7·946	8·110	7·687	7·851	7·443	66	41
67	42	8·056	7·612	7·801	7·372	7·560	7·145	67	42
68	43	7·733	7·282	7·496	7·061	7·271	6·851	68	43
69	44	7·414	6·958	7·195	6·754	6·987	6·559	69	44
70	45	7·102	6·640	6·899	6·452	6·706	6·272	70	45
71	46	6·795	6·328	6·608	6·155	6·429	5·990	71	46
72	47	6·495	6·023	6·322	5·864	6·158	5·712	72	47
73	48	6·201	5·724	6·043	5·579	5·891	5·440	73	48
74	49	5·915	5·432	5·769	5·300	5·629	5·173	74	49
75	50	5·635	5·148	5·501	5·027	5·372	4·911	75	50
76	51	5·362	4·872	5·239	4·762	5·122	4·656	76	51
77	52	5·096	4·602	4·984	4·503	4·876	4·407	77	52
78	53	4·838	4·341	4·736	4·251	4·637	4·164	78	53
79	54	4·587	4·088	4·494	4·007	4·404	3·928	79	54
80	55	4·344	3·843	4·259	3·770	4·177	3·699	80	55
81	56	4·107	3·606	4·031	3·540	3·957	3·476	81	56
82	57	3·879	3·377	3·810	3·318	3·742	3·261	82	57
83	58	3·658	3·157	3·596	3·104	3·535	3·053	83	58
84	59	3·445	2·945	3·388	2·898	3·333	2·852	84	59
85	60	3·239	2·741	3·188	2·699	3·139	2·658	85	60
86	61	3·041	2·545	2·995	2·508	2·951	2·472	86	61
87	62	2·850	2·359	2·809	2·326	2·769	2·294	87	62
88	63	2·667	2·180	2·630	2·151	2·595	2·123	88	63
89	64	2·491	2·010	2·459	1·985	2·427	1·960	89	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 25 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male.	Female.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Female.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
90	65	2·323	1·849	2·294	1·826	2·266	1·805	90	65
91	66	2·163	1·695	2·137	1·676	2·111	1·657	91	66
92	67	2·009	1·551	1·986	1·534	1·964	1·517	92	67
93	68	1·863	1·414	1·843	1·399	1·823	1·385	93	68
94	69	1·725	1·285	1·706	1·272	1·689	1·260	94	69
95	70	1·593	1·165	1·577	1·154	1·561	1·143	95	70
96	71	1·467	1·052	1·453	1·042	1·439	1·033	96	71
97	72	1·348	·946	1·336	·938	1·324	·930	97	72
98	73	1·235	·847	1·224	·840	1·214	·833	98	73
99	74	1·126	·754	1·117	·748	1·107	·743	99	74
100	75	...	·666	...	·661	...	·656	100	75
101	76	...	·578	...	·574	...	·570	101	76
102	77	...	·478	...	·475	...	·472	102	77
103	78	...	·328	...	·327	...	·325	103	78

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 30 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female y
50	20	14·083	...	13·362	...	12·700	...	50	20
51	21	13·742	...	13·054	...	12·422	...	51	21
52	22	13·398	...	12·743	...	12·139	...	52	22
53	23	13·051	...	12·428	...	11·853	...	53	23
54	24	12·701	...	12·110	...	11·563	...	54	24
55	25	12·350	11·976	11·789	11·434	11·269	10·931	55	25
56	26	11·997	11·619	11·466	11·106	10·973	10·630	56	26
57	27	11·643	11·262	11·141	10·777	10·674	10·327	57	27
58	28	11·288	10·903	10·815	10·447	10·373	10·021	58	28
59	29	10·934	10·544	10·488	10·115	10·071	9·714	59	29
60	30	10·581	10·185	10·161	9·783	9·768	9·406	60	30
61	31	10·228	9·828	9·834	9·450	9·464	9·097	61	31
62	32	9·877	9·472	9·507	9·119	9·160	8·787	62	32
63	33	9·528	9·118	9·183	8·789	8·857	8·479	63	33
64	34	9·183	8·767	8·860	8·460	8·555	8·170	64	34
65	35	8·841	8·419	8·539	8·133	8·254	7·863	65	35
66	36	8·502	8·075	8·221	7·809	7·956	7·558	66	36
67	37	8·168	7·734	7·907	7·488	7·660	7·256	67	37
68	38	7·838	7·399	7·596	7·172	7·366	6·956	68	38
69	39	7·514	7·069	7·290	6·859	7·076	6·660	69	39
70	40	7·195	6·745	6·988	6·552	6·791	6·368	70	40
71	41	6·883	6·426	6·692	6·249	6·509	6·079	71	41
72	42	6·577	6·114	6·401	5·952	6·232	5·797	72	42
73	43	6·278	5·810	6·116	5·661	5·960	5·519	73	43
74	44	5·986	5·512	5·836	5·376	5·694	5·246	74	44
75	45	5·701	5·223	5·564	5·099	5·433	4·980	75	45
76	46	5·423	4·941	5·299	4·828	5·178	4·720	76	46
77	47	5·154	4·667	5·039	4·565	4·930	4·466	77	47
78	48	4·892	4·401	4·788	4·309	4·687	4·220	78	48
79	49	4·638	4·144	4·543	4·061	4·452	3·980	79	49
80	50	4·392	3·896	4·306	3·821	4·223	3·748	80	50
81	51	4·154	3·656	4·076	3·589	4·001	3·524	81	51
82	52	3·925	3·425	3·854	3·365	3·785	3·306	82	52
83	53	3·703	3·203	3·639	3·149	3·577	3·097	83	53
84	54	3·489	2·990	3·431	2·942	3·375	2·895	84	54
85	55	3·283	2·786	3·231	2·742	3·181	2·701	85	55
86	56	3·085	2·590	3·038	2·552	2·993	2·514	86	56
87	57	2·895	2·403	2·853	2·369	2·812	2·336	87	57
88	58	2·712	2·224	2·675	2·194	2·638	2·165	88	58
89	59	2·537	2·054	2·504	2·028	2·471	2·002	89	59
90	60	2·370	1·892	2·339	1·869	2·310	1·847	90	60
91	61	2·209	1·739	2·182	1·718	2·156	1·699	91	61
92	62	2·056	1·593	2·032	1·576	2·008	1·558	92	62
93	63	1·910	1·456	1·888	1·441	1·867	1·425	93	63
94	64	1·770	1·326	1·751	1·313	1·733	1·300	94	64

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
MALE 30 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
95	65	1·637	1·204	1·620	1·193	1·604	1·181	95	65
96	66	1·511	1·090	1·496	1·080	1·481	1·070	96	66
97	67	1·390	·982	1·377	·974	1·364	·965	97	67
98	68	1·275	·881	1·263	·874	1·252	·867	98	68
99	69	1·163	·786	1·153	·780	1·144	·774	99	69
100	70	...	·695	...	·690	...	·685	100	70
101	71	...	·603	...	·599	...	·595	101	71
102	72	...	·498	...	·495	...	·492	102	72
103	73	...	·340	...	·338	...	·337	103	73

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 35 YEARS OLDER.

Age.		$2\frac{1}{2}$ %		3 %		$3\frac{1}{2}$ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
55	20	12·453	...	11·883	...	11·355	...	55	20
56	21	12·102	...	11·561	...	11·061	...	56	21
57	22	11·748	...	11·237	...	10·763	...	57	22
58	23	11·395	...	10·913	...	10·464	...	58	23
59	24	11·041	...	10·587	...	10·162	...	59	24
60	25	10·687	10·300	10·259	9·889	9·860	9·505	60	25
61	26	10·334	9·942	9·932	9·557	9·556	9·196	61	26
62	27	9·982	9·585	9·605	9·225	9·252	8·887	62	27
63	28	9·631	9·230	9·279	8·893	8·947	8·577	63	28
64	29	9·284	8·877	8·954	8·563	8·644	8·267	64	29
65	30	8·939	8·526	8·631	8·234	8·341	7·958	65	30
66	31	8·597	8·179	8·311	7·908	8·040	7·651	66	31
67	32	8·260	7·835	7·993	7·584	7·742	7·346	67	32
68	33	7·927	7·496	7·680	7·264	7·446	7·044	68	33
69	34	7·599	7·162	7·370	6·948	7·153	6·745	69	34
70	35	7·276	6·834	7·065	6·636	6·863	6·449	70	35
71	36	6·960	6·511	6·764	6·330	6·578	6·157	71	36
72	37	6·649	6·195	6·469	6·029	6·298	5·870	72	37
73	38	6·345	5·885	6·180	5·734	6·022	5·588	73	38
74	39	6·049	5·583	5·897	5·445	5·752	5·311	74	39
75	40	5·759	5·289	5·620	5·162	5·487	5·041	75	40
76	41	5·478	5·002	5·351	4·887	5·228	4·777	76	41
77	42	5·203	4·724	5·087	4·620	4·976	4·519	77	42
78	43	4·938	4·454	4·832	4·359	4·730	4·269	78	43
79	44	4·680	4·193	4·584	4·107	4·491	4·026	79	44
80	45	4·431	3·940	4·343	3·863	4·259	3·790	80	45
81	46	4·190	3·697	4·110	3·628	4·034	3·561	81	46
82	47	3·957	3·462	3·885	3·401	3·815	3·341	82	47
83	48	3·733	3·237	3·668	3·182	3·605	3·129	83	48
84	49	3·517	3·021	3·458	2·972	3·401	2·924	84	49
85	50	3·309	2·814	3·256	2·770	3·205	2·728	85	50
86	51	3·110	2·616	3·062	2·578	3·016	2·540	86	51
87	52	2·919	2·428	2·876	2·393	2·834	2·360	87	52
88	53	2·735	2·248	2·697	2·218	2·660	2·188	88	53
89	54	2·560	2·077	2·526	2·050	2·492	2·024	89	54
90	55	2·392	1·914	2·361	1·891	2·331	1·868	90	55
91	56	2·232	1·760	2·204	1·740	2·177	1·720	91	56
92	57	2·078	1·615	2·054	1·597	2·030	1·579	92	57
93	58	1·932	1·477	1·911	1·461	1·889	1·446	93	58
94	59	1·793	1·347	1·774	1·334	1·755	1·320	94	59
95	60	1·660	1·225	1·643	1·213	1·626	1·202	95	60
96	61	1·534	1·110	1·519	1·100	1·504	1·090	96	61
97	62	1·413	1·002	1·400	·994	1·387	·985	97	62
98	63	1·297	·901	1·286	·893	1·274	·886	98	63
99	64	1·185	·805	1·175	·799	1·165	·792	99	64

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 35 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
100	65	...	·713	...	·707	...	·702	100	65
101	66	...	·619	...	·615	...	·610	101	66
102	67	...	·510	...	·507	...	·504	102	67
103	68	...	·348	...	·346	...	·344	103	68

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 40 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
60	20	10·755	...	10·323	...	9·918	...	60	20
61	21	10·404	...	9·996	...	9·616	...	61	21
62	22	10·052	...	9·670	...	9·312	...	62	22
63	23	9·702	...	9·345	...	9·009	...	63	23
64	24	9·354	...	9·020	...	8·705	...	64	24
65	25	9·009	8·602	8·697	8·306	8·403	8·026	65	25
66	26	8·667	8·255	8·376	7·979	8·102	7·719	66	26
67	27	8·328	7·910	8·058	7·655	7·802	7·413	67	27
68	28	7·994	7·570	7·743	7·334	7·505	7·110	68	28
69	29	7·664	7·234	7·432	7·016	7·211	6·809	69	29
70	30	7·339	6·904	7·125	6·703	6·920	6·512	70	30
71	31	7·020	6·579	6·822	6·394	6·634	6·219	71	31
72	32	6·708	6·260	6·525	6·091	6·351	5·930	72	32
73	33	6·401	5·948	6·233	5·793	6·073	5·646	73	33
74	34	6·102	5·643	5·947	5·502	5·800	5·366	74	34
75	35	5·810	5·345	5·668	5·217	5·533	5·093	75	35
76	36	5·525	5·055	5·396	4·938	5·272	4·827	76	36
77	37	5·248	4·773	5·130	4·668	5·017	4·566	77	37
78	38	4·978	4·500	4·871	4·404	4·768	4·312	78	38
79	39	4·718	4·236	4·620	4·149	4·526	4·066	79	39
80	40	4·465	3·980	4·377	3·902	4·291	3·827	80	40
81	41	4·221	3·733	4·141	3·663	4·063	3·596	81	41
82	42	3·986	3·496	3·913	3·433	3·843	3·373	82	42
83	43	3·759	3·268	3·693	3·212	3·629	3·158	83	43
84	44	3·540	3·049	3·481	2·999	3·424	2·951	84	44
85	45	3·331	2·839	3·277	2·795	3·225	2·752	85	45
86	46	3·129	2·639	3·081	2·600	3·034	2·561	86	46
87	47	2·936	2·448	2·893	2·413	2·851	2·379	87	47
88	48	2·751	2·266	2·713	2·235	2·675	2·205	88	48
89	49	2·574	2·093	2·540	2·066	2·506	2·040	89	49
90	50	2·405	1·929	2·374	1·906	2·344	1·882	90	50
91	51	2·244	1·774	2·216	1·753	2·189	1·733	91	51
92	52	2·090	1·627	2·065	1·609	2·041	1·591	92	52
93	53	1·944	1·489	1·922	1·473	1·900	1·457	93	53
94	54	1·804	1·358	1·784	1·345	1·765	1·331	94	54
95	55	1·671	1·236	1·654	1·224	1·637	1·212	95	55
96	56	1·544	1·121	1·529	1·110	1·514	1·100	96	56
97	57	1·424	1·012	1·410	1·003	1·397	·995	97	57
98	58	1·308	·911	1·296	·903	1·285	·895	98	58
99	59	1·196	·814	1·185	·808	1·175	·801	99	59
100	60	...	·721	...	·716	...	·711	100	60
101	61	...	·627	...	·622	...	·618	101	61
102	62	...	·517	...	·514	...	·511	102	62
103	63	...	·352	...	·350	...	·348	103	63

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 45 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male.	Female.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	At Date of Purchase.	After Five Years from Purchase.	Male.	Female.
x	y	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	$a_{[xy]}$	a_{xy}	x	y
65	20	9·052	...	8·737	...	8·440	...	65	20
66	21	8·710	...	8·417	...	8·140	...	66	21
67	22	8·372	...	8·099	...	7·841	...	67	22
68	23	8·038	...	7·785	...	7·545	...	68	23
69	24	7·708	...	7·473	...	7·250	...	69	24
70	25	7·383	6·952	7·166	6·749	6·959	6·556	70	25
71	26	7·063	6·627	6·863	6·440	6·672	6·262	71	26
72	27	6·750	6·307	6·565	6·136	6·389	5·973	72	27
73	28	6·442	5·994	6·272	5·837	6·110	5·688	73	28
74	29	6·141	5·687	5·986	5·544	5·836	5·407	74	29
75	30	5·848	5·388	5·705	5·258	5·568	5·133	75	30
76	31	5·561	5·097	5·431	4·978	5·305	4·865	76	31
77	32	5·282	4·813	5·163	4·706	5·049	4·603	77	32
78	33	5·012	4·538	4·903	4·441	4·798	4·348	78	33
79	34	4·749	4·271	4·650	4·184	4·555	4·099	79	34
80	35	4·495	4·013	4·405	3·935	4·318	3·858	80	35
81	36	4·249	3·764	4·167	3·694	4·089	3·625	81	36
82	37	4·011	3·525	3·938	3·461	3·866	3·400	82	37
83	38	3·782	3·294	3·716	3·238	3·651	3·183	83	38
84	39	3·562	3·073	3·502	3·023	3·444	2·974	84	39
85	40	3·350	2·862	3·296	2·817	3·244	2·773	85	40
86	41	3·147	2·659	3·098	2·620	3·051	2·581	86	41
87	42	2·952	2·467	2·908	2·431	2·866	2·397	87	42
88	43	2·765	2·283	2·727	2·252	2·688	2·221	88	43
89	44	2·587	2·108	2·552	2·081	2·518	2·054	89	44
90	45	2·417	1·943	2·386	1·919	2·355	1·895	90	45
91	46	2·254	1·786	2·226	1·765	2·199	1·744	91	46
92	47	2·099	1·638	2·074	1·619	2·050	1·601	92	47
93	48	1·952	1·498	1·930	1·482	1·908	1·466	93	48
94	49	1·811	1·367	1·792	1·353	1·772	1·339	94	49
95	50	1·678	1·243	1·660	1·231	1·643	1·219	95	50
96	51	1·551	1·127	1·535	1·117	1·520	1·106	96	51
97	52	1·430	1·018	1·416	1·009	1·403	1·000	97	52
98	53	1·313	·916	1·302	·908	1·290	·901	98	53
99	54	1·201	·819	1·190	·813	1·180	·806	99	54
100	55	...	·726	...	·720	...	·715	100	55
101	56	...	·631	...	·626	...	·622	101	56
102	57	...	·520	...	·517	...	·514	102	57
103	58	...	·354	...	·352	...	·350	103	58

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 50 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
70	20	7·408	...	7·189	...	6·982	...	70	20
71	21	7·089	...	6·887	...	6·695	...	71	21
72	22	6·775	...	6·589	...	6·412	...	72	22
73	23	6·468	...	6·297	...	6·133	...	73	23
74	24	6·167	...	6·010	...	5·860	...	74	24
75	25	5·873	5·417	5·729	5·286	5·591	5·159	75	25
76	26	5·586	5·125	5·455	5·006	5·328	4·891	76	26
77	27	5·307	4·841	5·187	4·733	5·071	4·628	77	27
78	28	5·035	4·565	4·926	4·467	4·820	4·373	78	28
79	29	4·772	4·297	4·672	4·209	4·576	4·124	79	29
80	30	4·516	4·038	4·426	3·959	4·339	3·882	80	30
81	31	4·269	3·788	4·187	3·717	4·108	3·648	81	31
82	32	4·031	3·547	3·956	3·483	3·885	3·421	82	32
83	33	3·801	3·316	3·734	3·259	3·669	3·203	83	33
84	34	3·579	3·093	3·519	3·042	3·460	2·993	84	34
85	35	3·366	2·880	3·312	2·835	3·259	2·791	85	35
86	36	3·162	2·677	3·113	2·637	3·065	2·598	86	36
87	37	2·966	2·482	2·922	2·447	2·879	2·412	87	37
88	38	2·778	2·297	2·739	2·266	2·700	2·235	88	38
89	39	2·599	2·122	2·563	2·094	2·529	2·067	89	39
90	40	2·427	1·955	2·396	1·931	2·365	1·907	90	40
91	41	2·263	1·797	2·236	1·775	2·208	1·755	91	41
92	42	2·108	1·648	2·083	1·629	2·058	1·611	92	42
93	43	1·959	1·507	1·937	1·491	1·915	1·475	93	43
94	44	1·818	1·374	1·798	1·360	1·779	1·346	94	44
95	45	1·683	1·250	1·666	1·238	1·649	1·226	95	45
96	46	1·556	1·133	1·540	1·122	1·525	1·112	96	46
97	47	1·434	1·023	1·420	1·014	1·407	1·005	97	47
98	48	1·317	·920	1·305	·913	1·294	·905	98	48
99	49	1·204	·823	1·194	·816	1·184	·810	99	49
100	50	...	·729	...	·724	...	·718	100	50
101	51	...	·633	...	·629	...	·625	101	51
102	52	...	·522	...	·519	...	·516	102	52
103	53	...	·355	...	·353	...	·351	103	53

MALE AND FEMALE.
VALUE OF A JOINT-LIFE ANNUITY OF 1.
MALE 55 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
75	20	5·887	...	5·742	...	5·603	...	75	20
76	21	5·600	...	5·467	...	5·341	...	76	21
77	22	5·321	...	5·200	...	5·084	...	77	22
78	23	5·049	...	4·939	...	4·833	...	78	23
79	24	4·785	...	4·685	...	4·589	...	79	24
80	25	4·530	4·054	4·439	3·974	4·351	3·897	80	25
81	26	4·283	3·804	4·200	3·732	4·121	3·663	81	26
82	27	4·044	3·563	3·969	3·498	3·897	3·436	82	27
83	28	3·813	3·331	3·746	3·273	3·681	3·217	83	28
84	29	3·591	3·108	3·530	3·056	3·471	3·007	84	29
85	30	3·378	2·894	3·323	2·848	3·270	2·804	85	30
86	31	3·173	2·690	3·124	2·649	3·076	2·610	86	31
87	32	2·976	2·495	2·932	2·459	2·889	2·424	87	32
88	33	2·788	2·309	2·748	2·277	2·710	2·246	88	33
89	34	2·608	2·132	2·572	2·104	2·538	2·077	89	34
90	35	2·436	1·965	2·404	1·940	2·373	1·916	90	35
91	36	2·271	1·806	2·243	1·784	2·215	1·763	91	36
92	37	2·115	1·656	2·090	1·637	2·065	1·619	92	37
93	38	1·966	1·514	1·943	1·498	1·921	1·482	93	38
94	39	1·824	1·381	1·804	1·367	1·784	1·353	94	39
95	40	1·689	1·256	1·671	1·244	1·654	1·231	95	40
96	41	1·560	1·138	1·545	1·128	1·530	1·117	96	41
97	42	1·438	1·028	1·424	1·019	1·411	1·010	97	42
98	43	1·321	·925	1·309	·917	1·297	·909	98	43
99	44	1·207	·827	1·197	·820	1·187	·813	99	44
100	45	...	·732	...	·727	...	·721	100	45
101	46	...	·636	...	·632	...	·627	101	46
102	47	...	·524	...	·521	...	·518	102	47
103	48	...	·356	...	·354	...	·352	103	48

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 60 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
80	20	4·537	...	4·445	...	4·357	...	80	20
81	21	4·290	...	4·207	...	4·127	...	81	21
82	22	4·051	...	3·976	...	3·903	...	82	22
83	23	3·820	...	3·753	...	3·687	...	83	23
84	24	3·598	...	3·537	...	3·478	...	84	24
85	25	3·385	2·903	3·330	2·857	3·276	2·812	85	25
86	26	3·179	2·698	3·130	2·657	3·082	2·618	86	26
87	27	2·983	2·503	2·938	2·467	2·895	2·432	87	27
88	28	2·794	2·317	2·754	2·285	2·716	2·254	88	28
89	29	2·614	2·139	2·578	2·111	2·544	2·084	89	29
90	30	2·441	1·972	2·410	1·947	2·379	1·923	90	30
91	31	2·277	1·812	2·248	1·791	2·221	1·770	91	31
92	32	2·120	1·662	2·095	1·643	2·070	1·625	92	32
93	33	1·970	1·520	1·948	1·504	1·926	1·488	93	33
94	34	1·828	1·386	1·808	1·372	1·789	1·358	94	34
95	35	1·693	1·261	1·675	1·248	1·658	1·236	95	35
96	36	1·564	1·143	1·549	1·132	1·533	1·122	96	36
97	37	1·442	1·032	1·428	1·023	1·414	1·014	97	37
98	38	1·324	·928	1·312	·920	1·300	·912	98	38
99	39	1·210	·830	1·199	·823	1·189	·816	99	39
100	40	...	·735	...	·729	...	·724	100	40
101	41	...	·638	...	·634	...	·629	101	41
102	42	...	·526	...	·522	...	·519	102	42
103	43	...	·357	...	·355	...	·353	103	43

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 65 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
85	20	3·388	...	3·333	...	3·279	...	85	20
86	21	3·183	...	3·133	...	3·085	...	86	21
87	22	2·986	...	2·941	...	2·898	...	87	22
88	23	2·797	...	2·758	...	2·719	...	88	23
89	24	2·617	...	2·581	...	2·547	...	89	24
90	25	2·444	1·976	2·413	1·951	2·382	1·927	90	25
91	26	2·280	1·817	2·252	1·795	2·224	1·774	91	26
92	27	2·123	1·666	2·098	1·647	2·073	1·629	92	27
93	28	1·973	1·524	1·951	1·507	1·929	1·491	93	28
94	29	1·831	1·390	1·811	1·376	1·792	1·362	94	29
95	30	1·696	1·264	1·678	1·252	1·661	1·239	95	30
96	31	1·567	1·146	1·551	1·135	1·536	1·125	96	31
97	32	1·444	1·035	1·430	1·026	1·417	1·017	97	32
98	33	1·326	·931	1·314	·923	1·302	·915	98	33
99	34	1·212	·832	1·201	·825	1·191	·819	99	34
100	35	...	·737	...	·731	...	·726	100	35
101	36	...	·640	...	·635	...	·631	101	36
102	37	...	·527	...	·524	...	·521	102	37
103	38	...	·357	...	·356	...	·354	103	38

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 70 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
90	20	2·446	...	2·414	...	2·383	...	90	20
91	21	2·281	...	2·253	...	2·225	...	91	21
92	22	2·124	...	2·099	...	2·074	...	92	22
93	23	1·975	...	1·952	...	1·930	...	93	23
94	24	1·832	...	1·813	...	1·793	...	94	24
95	25	1·697	1·266	1·679	1·254	1·662	1·241	95	25
96	26	1·568	1·148	1·553	1·137	1·537	1·127	96	26
97	27	1·445	1·037	1·432	1·028	1·418	1·018	97	27
98	28	1·328	·932	1·316	·925	1·304	·917	98	28
99	29	1·213	·834	1·203	·827	1·192	·820	99	29
100	30	...	·738	...	·733	...	·727	100	30
101	31	...	·641	...	·637	...	·632	101	31
102	32	...	·528	...	·525	...	·522	102	32
103	33	...	·358	...	·356	...	·354	103	33

MALE AND FEMALE.

VALUE OF A JOINT-LIFE ANNUITY OF 1.

MALE 75 YEARS OLDER.

Age.		2½ %		3 %		3½ %		Age.	
Male. x	Female. y	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	At Date of Purchase. $a_{[xy]}$	After Five Years from Purchase. a_{xy}	Male. x	Female. y
95	20	1·698	...	1·680	...	1·663	...	95	20
96	21	1·569	...	1·553	...	1·538	...	96	21
97	22	1·446	...	1·432	...	1·419	...	97	22
98	23	1·328	...	1·316	...	1·304	...	98	23
99	24	1·214	...	1·203	...	1·193	...	99	24
100	25	...	·739	...	·734	...	·728	100	25
101	26	...	·642	...	·637	...	·633	101	26
102	27	...	·529	...	·525	...	·522	102	27
103	28	...	·358	...	·356	...	·355	103	28

BRITISH OFFICES LIFE ANNUITY TABLES, 1893.

TABLE OF UNIFORM SENIORITY.

Applicable at all ages, and all rates of interest, to the calculation of SELECT and ULTIMATE values of

JOINT ANNUITIES ON TWO MALE LIVES.*

* For Examples of the application of this and the following Tables, see pp. 229–233.

Table showing the number of years (t), to be added to the age of the younger of two Male lives, (x), ($x+h$), to obtain the age of the two equivalent lives of equal ages, ($x+t$), and ($x+t$).

$$c^x + c^{x+h} = 2c^{x+t}$$

$$a_{[x]:[x+h]} = a_{[x+t]:[x+t]}, \quad a_{x:x+h} = a_{x+t:x+t}$$

h	t	h	t
0	0·00	40	32·42
1	0·51	1	33·39
2	1·04	2	34·37
3	1·60	3	35·34
4	2·17	4	36·32
5	2·77	45	37·30
6	3·39	6	38·28
7	4·03	7	39·26
8	4·69	8	40·25
9	5·36	9	41·23
10	6·06	50	42·22
1	6·78	1	43·21
2	7·51	2	44·20
3	8·26	3	45·19
4	9·02	4	46·18
15	9·80	55	47·17
6	10·60	6	48·16
7	11·41	7	49·16
8	12·23	8	50·15
9	13·06	9	51·14
20	13·91	60	52·14
1	14·77	1	53·13
2	15·64	2	54·13
3	16·51	3	55·12
4	17·40	4	56·12
25	18·29	65	57·12
6	19·20	6	58·12
7	20·11	7	59·11
8	21·03	8	60·11
9	21·95	9	61·11
30	22·88	70	62·10
1	23·81	1	63·10
2	24·75	2	64·10
3	25·70	3	65·10
4	26·65	4	66·10
35	27·60	75	67·10
6	28·56	6	68·09
7	29·52	7	69·09
8	30·48	8	70·09
9	31·45	9	71·09
		80	72·09
		1	73·09
		2	74·09
		3	75·09

BRITISH OFFICES LIFE ANNUITY TABLES, 1893.

VALUES OF ANNUITIES

ON

TWO JOINT LIVES OF EQUAL AGE.

TWO MALES . . . . $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, and 5 per cent.

TWO FEMALES. . . 4 and 5 per cent.

MALE AND FEMALE 4 and 5 per cent.

SELECT AND ULTIMATE VALUES.

TWO MALES.

$2\frac{1}{2}$ PER CENT. SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. $2\frac{1}{2}$ PER CENT.

x	At Date of Purchase $a_{[xx]}$										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
20	20·565	·543	·521	·498	·476	·454	·432	·410	·387	·365	22	20
21	·343	·320	·298	·275	·253	·230	·207	·185	·162	·140	23	21
22	·117	·094	·070	·047	·024	·001	**·977**	**·954**	**·931**	**·907**	23	22
23	19·884	·860	·836	·812	·788	·764	·740	·716	·692	·668	24	23
24	·644	·620	·595	·571	·546	·522	·498	·473	·449	·424	24	24
25	·400	·375	·350	·325	·300	·275	·249	·224	·199	·174	25	25
26	·149	·123	·098	·072	·047	·021	**·995**	**·970**	**·944**	**·919**	26	26
27	18·893	·867	·841	·814	·788	·762	·736	·710	·683	·657	26	27
28	·631	·604	·577	·550	·523	·497	·470	·443	·416	·389	27	28
29	·362	·335	·307	·280	·253	·226	·198	·171	·144	·116	27	29
30	·089	·061	·033	·005	**·977**	**·949**	**·921**	**·893**	**·865**	**·837**	28	30
31	17·809	·780	·752	·723	·695	·666	·637	·609	·580	·552	29	31
32	·523	·494	·465	·436	·407	·378	·348	·319	·290	·261	29	32
33	·232	·202	·173	·143	·113	·084	·054	·024	**·994**	**·965**	30	33
34	16·935	·905	·875	·844	·814	·784	·754	·724	·693	·663	30	34
35	·633	·602	·572	·541	·510	·480	·449	·418	·387	·357	31	35
36	·326	·295	·264	·232	·201	·170	·139	·108	·076	·045	31	36
37	·014	**·982**	**·951**	**·919**	**·887**	**·856**	**·824**	**·792**	**·760**	**·729**	32	37
38	15·697	·665	·633	·600	·568	·536	·504	·472	·439	·407	32	38
39	·375	·342	·310	·277	·244	·212	·179	·146	·113	·081	33	39
40	·048	·015	**·982**	**·949**	**·916**	**·883**	**·850**	**·817**	**·784**	**·751**	33	40
41	14·718	·685	·651	·618	·584	·551	·518	·484	·451	·417	33	41
42	·384	·350	·316	·283	·249	·215	·181	·147	·114	·080	34	42
43	·046	·012	**·978**	**·944**	**·910**	**·876**	**·841**	**·807**	**·773**	**·739**	34	43
44	13·705	·671	·636	·602	·567	·533	·499	·464	·430	·395	34	44
45	·361	·326	·292	·257	·222	·188	·153	·118	·083	·049	35	45
46	·014	**·979**	**·944**	**·909**	**·874**	**·840**	**·805**	**·770**	**·735**	**·700**	35	46
47	12·665	·630	·595	·560	·525	·490	·455	·420	·385	·350	35	47
48	·315	·280	·244	·209	·174	·139	·103	·068	·033	**·997**	35	48
49	11·962	·927	·892	·856	·821	·786	·751	·716	·680	·645	35	49
50	·610	·575	·539	·504	·469	·434	·398	·363	·328	·292	35	50
51	·257	·222	·186	·151	·115	·080	·045	·009	**·974**	**·938**	35	51
52	10·903	·868	·833	·797	·762	·727	·692	·657	·621	·586	35	52
53	·551	·516	·481	·445	·410	·375	·340	·305	·269	·234	35	53
54	·199	·164	·129	·094	·059	·024	**·989**	**·954**	**·919**	**·884**	35	54
55	9·849	·814	·779	·745	·710	·675	·640	·605	·571	·536	35	55
56	·501	·466	·432	·397	·362	·328	·293	·258	·223	·189	35	56
57	·154	·120	·085	·051	·017	**·983**	**·948**	**·914**	**·880**	**·845**	34	57
58	8·811	·777	·743	·709	·675	·642	·608	·574	·540	·506	34	58
59	·472	·439	·405	·372	·338	·305	·271	·238	·204	·171	34	59

TWO MALES.

$2\frac{1}{2}$ PER CENT. — SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. — $2\frac{1}{2}$ PER CENT

x	At Date of Purchase $a_{[xx]}$										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
60	8·137	·104	·071	·038	·005	·972	·938	·905	·872	·839	33	60
61	7·806	·773	·741	·708	·676	·643	·610	·578	·545	·513	33	61
62	·480	·448	·416	·384	·352	·320	·287	·255	·223	·191	32	62
63	·159	·127	·096	·064	·033	·001	·969	·938	·906	·875	32	63
64	6·843	·812	·781	·750	·719	·689	·658	·627	·596	·565	31	64
65	·534	·504	·474	·443	·413	·383	·353	·323	·292	·262	30	65
66	·232	·202	·173	·143	·114	·084	·054	·025	·995	·966	30	66
67	5·936	·907	·878	·850	·821	·792	·763	·734	·706	·677	29	67
68	·648	·620	·592	·564	·536	·508	·480	·452	·424	·396	28	68
69	·368	·341	·313	·286	·258	·231	·204	·176	·149	·121	27	69
70	·094	·068	·041	·015	·988	·962	·936	·909	·883	·856	26	70
71	4·830	·804	·778	·753	·727	·701	·675	·649	·624	·598	26	71
72	·572	·547	·522	·497	·472	·448	·423	·398	·373	·348	25	72
73	·323	·299	·275	·251	·227	·203	·179	·155	·131	·107	24	73
74	·083	·060	·037	·013	·990	·967	·944	·921	·897	·874	23	74
75	3·851	·829	·806	·784	·762	·740	·717	·695	·673	·650	22	75
76	·628	·607	·585	·564	·542	·521	·499	·478	·456	·435	22	76
77	·413	·392	·372	·351	·331	·310	·289	·269	·248	·228	21	77
78	·207	·187	·167	·148	·128	·108	·088	·068	·049	·029	20	78
79	·009	·990	·971	·952	·933	·914	·895	·876	·857	·838	19	79
80	2·819	·801	·783	·765	·747	·729	·710	·692	·674	·656	18	80
81	·638	·621	·603	·586	·568	·551	·534	·516	·499	·481	17	81
82	·464	·447	·431	·414	·398	·381	·364	·348	·331	·315	17	82
83	·298	·282	·267	·251	·235	·220	·204	·188	·172	·157	16	83
84	·141	·126	·111	·096	·081	·066	·050	·035	·020	·005	15	84
85	1·990	·976	·961	·947	·933	·919	·904	·890	·876	·861	14	85
86	·847	·833	·820	·806	·793	·779	·765	·752	·738	·725	14	86
87	·711	·698	·685	·672	·659	·647	·634	·621	·608	·595	13	87
88	·582	·570	·558	·545	·533	·521	·509	·497	·484	·472	12	88
89	·460	·448	·437	·425	·414	·402	·390	·379	·367	·356	12	89
90	·344	·333	·322	·311	·300	·289	·278	·267	·256	·245	11	90
91	·234	·224	·213	203	·193	·183	·172	·162	·152	·141	10	91
92	·131	·121	·111	·101	·091	·081	·071	·061	·051	·041	10	92
93	·031	·022	·013	·004	·995	·986	·977	·968	·959	·950	9	93
94	0·941	·932	·924	·915	·906	·898	·889	·880	·871	·863	9	94
95	·854	·846	·838	·830	·822	·814	·805	·797	·789	·781	8	95
96	·773	·765	·758	·750	·743	·735	·727	·720	·712	·705	8	96
97	·697	·690	·683	·676	·669	·662	·654	·647	·640	·633	7	97
98	·626	·619	·613	·606	·599	·593	·586	·579	·572	·566	7	98
99	·559	...	...	...	...	...	...	...	...	...	...	99

TWO MALES.

$2\frac{1}{2}$ PER CENT. | ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. | $2\frac{1}{2}$ PER CENT.

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
25	18·998	·973	·948	·924	·899	·874	·849	·824	·800	·775	25	25
26	·750	·725	·699	·674	·648	·623	·598	·572	·547	·521	25	26
27	·496	·470	·444	·418	·392	·366	·340	·314	·288	·262	26	27
28	·236	·209	·183	·156	·130	·103	·076	·050	·023	·997	27	28
29	17·970	·943	·915	·888	·861	·834	·806	·779	·752	·724	27	29
30	·697	·669	·642	·614	·586	·559	·531	·503	·475	·448	28	30
31	·420	·392	·363	·335	·306	·278	·250	·221	·193	·164	28	31
32	·136	·107	·078	·049	·020	·992	·963	·934	·905	·876	29	32
33	16·847	·818	·788	·759	·729	·700	·670	·641	·611	·582	30	33
34	·552	·522	·492	·462	·432	·402	·371	·341	·311	·281	30	34
35	·251	·220	·190	·159	·129	·098	·067	·037	·006	·976	31	35
36	15·945	·914	·883	·852	·821	·790	·758	·727	·696	·665	31	36
37	·634	·602	·571	·539	·508	·476	·444	·413	·381	·350	32	37
38	·318	·286	·254	·222	·190	·158	·125	·093	·061	·029	32	38
39	14·997	·964	·932	·899	·867	·834	·801	·769	·736	·704	33	39
40	·671	·638	·605	·572	·539	·506	·473	·440	·407	·374	33	40
41	·341	·308	·274	·241	·207	·174	·140	·107	·073	·040	34	41
42	·006	·972	·939	·905	·871	·838	·804	·770	·736	·703	34	42
43	13·669	·635	·601	·566	·532	·498	·464	·430	·395	·361	34	43
44	·327	·293	·258	·224	·189	·155	·120	·086	·051	·017	35	44
45	12·982	·947	·913	·878	·843	·809	·774	·739	·704	·670	35	45
46	·635	·600	·565	·530	·495	·460	·425	·390	·355	·320	35	46
47	·285	·250	·214	·179	·144	·109	·073	·038	·003	·967	35	47
48	11·932	·897	·861	·826	·790	·755	·720	·684	·649	·613	35	48
49	·578	·543	·507	·472	·436	·401	·365	·330	·294	·259	36	49
50	·223	·188	·152	·117	·081	·046	·010	·975	·939	·904	36	50
51	10·868	·832	·797	·761	·725	·690	·654	·618	·582	·547	36	51
52	·511	·475	·440	·404	·369	·333	·297	·262	·226	·191	36	52
53	·155	·120	·084	·049	·013	·978	·943	·907	·872	·836	35	53
54	9·801	·766	·730	·695	·659	·624	·589	·553	·518	·482	35	54
55	·447	·412	·377	·341	·306	·271	·236	·201	·165	·130	35	55
56	·095	·060	·025	·990	·955	·920	·884	·849	·814	·779	35	56
57	8·744	·709	·675	·640	·605	·571	·536	·501	·466	·432	35	57
58	·397	·363	·328	·294	·259	·225	·191	·156	·122	·087	34	58
59	·053	·019	·985	·951	·917	·883	·849	·815	·781	·747	34	59
60	7·713	·679	·646	·612	·579	·545	·511	·478	·444	·411	34	60
61	·377	·344	·311	·278	·245	·212	·178	·145	·112	·079	33	61
62	·046	·013	·981	·948	·916	·883	·850	·818	·785	·753	33	62
63	6·720	·688	·656	·624	·592	·560	·528	·496	·464	·432	32	63
64	·400	·369	·337	·306	·274	·243	·212	·180	·149	·117	31	64

TWO MALES.

$2\frac{1}{2}$ PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. $2\frac{1}{2}$ PER CENT.

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
65	6·086	·055	·025	·994	·963	·933	·902	·871	·840	·810	31	65
66	5·779	·749	·719	·689	·659	·629	·598	·568	·538	·508	30	66
67	·478	·449	·420	·390	·361	·332	·303	·274	·244	·215	29	67
68	·186	·158	·129	·101	·072	·044	·015	·987	·958	·930	29	68
69	4·901	·873	·846	·818	·790	·763	·735	·707	·679	·652	28	69
70	·624	·597	·570	·543	·516	·490	·463	·436	·409	·382	27	70
71	·355	·329	·303	·277	·251	·225	·199	·173	·147	·121	26	71
72	·095	·070	·045	·020	·995	·970	·944	·919	·894	·869	25	72
73	3·844	·820	·796	·771	·747	·723	·699	·675	·650	·626	24	73
74	·602	·579	·555	·532	·508	·485	·462	·438	·415	·391	23	74
75	·368	·346	·323	·301	·278	·256	·234	·211	·189	·166	22	75
76	·144	·123	·101	·080	·058	·037	·016	·994	·973	·951	21	76
77	2·930	·909	·889	·868	·848	·827	·806	·786	·765	·745	21	77
78	·724	·704	·685	·665	·646	·626	·606	·587	·567	·548	20	78
79	·528	·509	·491	·472	·453	·435	·416	·397	·378	·360	19	79
80	·341	·323	·305	·288	·270	·252	·234	·216	·199	·181	18	80
81	·163	·146	·129	·112	·095	·079	·062	·045	·028	·011	17	81
82	1·994	·978	·962	·946	·930	·914	·898	·882	·866	·850	16	82
83	·834	·819	·804	·789	·774	·759	·743	·728	·713	·698	15	83
84	·683	·669	·654	·640	·626	·612	·597	·583	·569	·554	14	84
85	·540	·527	·513	·500	·486	·473	·459	·446	·432	·419	14	85
86	·405	·392	·380	·367	·355	·342	·329	·317	·304	·292	13	86
87	·279	·267	·255	·243	·231	·220	·208	·196	·184	·172	12	87
88	·160	·149	·138	·127	·116	·105	·093	·082	·071	·060	11	88
89	·049	·039	·028	·018	·007	·997	·987	·976	·966	·955	10	89
90	0·945	·935	·926	·916	·907	·897	·887	·878	·868	·859	10	90
91	·849	·840	·831	·822	·813	·804	·795	·786	·777	·768	9	91
92	·759	·751	·742	·734	·726	·718	·709	·701	·693	·684	8	92
93	·676	·668	·661	·653	·645	·638	·630	·622	·614	·607	8	93
94	·599	·592	·585	·578	·571	·564	·556	·549	·542	·535	7	94
95	·528	·522	·515	·509	·502	·496	·489	·483	·476	·470	7	95
96	·463	·457	·451	·445	·439	·434	·428	·422	·416	·410	6	96
97	·404	·399	·393	·388	·382	·377	·372	·366	·361	·355	5	97
98	·350	·345	·340	·335	·330	·326	·321	·316	·311	·306	5	98
99	·301	·297	·292	·288	·283	·279	·274	·270	·265	·261	5	99
100	·256	·252	·248	·244	·240	·236	·232	·228	·224	·220	4	100
101	·216	·212	·208	·205	·201	·197	·193	·189	·186	·182	4	101
102	·178	·174	·169	·165	·160	·156	·151	·147	·142	·138	5	102
103	·133	...	...	...	...	...	...	...	...	...	...	103

TWO MALES.

3 PER CENT. — SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. — 3 PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
20	19·011	·992	·974	·955	·937	·918	·899	·881	·862	·844	19	20
21	18·825	·806	·787	·768	·749	·730	·711	·692	·673	·654	19	21
22	·635	·615	·596	·576	·557	·537	·517	·498	·478	·459	20	22
23	·439	·419	·399	·378	·358	·338	·318	·298	·277	·257	20	23
24	·237	·216	·195	·175	·154	·133	·112	·091	·071	·050	21	24
25	·029	·008	·986	·965	·943	·922	·901	·879	·858	·836	21	25
26	17·815	·793	·771	·749	·727	·706	·684	·662	·640	·618	22	26
27	·596	·574	·551	·529	·506	·484	·461	·439	·416	·394	23	27
28	·371	·348	·325	·302	·279	·256	·232	·209	·186	·163	23	28
29	·140	·116	·093	·069	·046	·022	·998	·975	·951	·928	24	29
30	16·904	·880	·855	·831	·807	·783	·758	·734	·710	·685	24	30
31	·661	·636	·611	·587	·562	·537	·512	·487	·463	·438	25	31
32	·413	·388	·362	·337	·311	·286	·261	·235	·210	·184	25	32
33	·159	·133	·107	·081	·055	·029	·003	·977	·951	·925	26	33
34	15·899	·872	·846	·819	·793	·766	·739	·713	·686	·660	27	34
35	·633	·606	·579	·552	·525	·498	·471	·444	·417	·390	27	35
36	·363	·335	·308	·280	·253	·225	·197	·170	·142	·115	28	36
37	·087	·059	·031	·003	·975	·947	·918	·890	·862	·834	28	37
38	14·806	·777	·749	·720	·691	·663	·634	·605	·576	·548	29	38
39	·519	·490	·461	·432	·403	·374	·344	·315	·286	·257	29	39
40	·228	·199	·169	·140	·110	·081	·051	·022	·992	·963	30	40
41	13·933	·903	·873	·843	·813	·783	·753	·723	·693	·663	30	41
42	·633	·603	·572	·542	·511	·481	·451	·420	·390	·359	30	42
43	·329	·298	·267	·236	·205	·175	·144	·113	·082	·051	31	43
44	·020	·989	·958	·927	·896	·865	·834	·803	·772	·741	31	44
45	12·710	·679	·647	·616	·584	·553	·521	·490	·458	·427	32	45
46	·395	·363	·331	·299	·267	·236	·204	·172	·140	·108	32	46
47	·076	·044	·012	·980	·948	·917	·885	·853	·821	·789	32	47
48	11·757	·725	·692	·660	·628	·596	·563	·531	·499	·466	32	48
49	·434	·402	·369	·337	·304	·272	·240	·207	·175	·142	32	49
50	·110	·078	·045	·013	·980	·948	·916	·883	·851	·818	32	50
51	10·786	·753	·721	·688	·655	·623	·590	·557	·524	·492	33	51
52	·459	·426	·394	·361	·329	·296	·263	·231	·198	·166	33	52
53	·133	·100	·068	·035	·003	·970	·937	·905	·872	·840	33	53
54	9·807	·774	·742	·709	·677	·644	·611	·579	·546	·514	33	54
55	·481	·449	·416	·384	·351	·319	·286	·254	·221	·189	33	55
56	·156	·124	·091	·059	·027	·995	·962	·930	·898	·865	32	56
57	8·833	·801	·769	·737	·705	·673	·640	·608	·576	·544	32	57
58	·512	·480	·448	·416	·384	·353	·321	·289	·257	·225	32	58
59	·193	·162	·130	·099	·067	·036	·004	·973	·941	·910	32	59

TWO MALES.

3 PER CENT. — SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. — 3 PER CENT.

x	At Date of Purchase $a_{[xx]}$										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
60	7·878	·847	·815	·784	·753	·722	·690	·659	·628	·596	31	60
61	·565	·534	·503	·473	·442	·411	·380	·349	·319	·288	31	61
62	·257	·227	·196	·166	·135	·105	·075	·044	·014	·983	30	62
63	6·953	·923	·893	·863	·833	·804	·774	·744	·714	·684	30	63
64	·654	·625	·595	·566	·536	·507	·478	·448	·419	·389	29	64
65	·360	·331	·302	·274	·245	·216	·187	·158	·130	·101	29	65
66	·072	·044	·016	·987	·959	·931	·903	·875	·846	·818	28	66
67	5·790	·762	·735	·707	·680	·652	·624	·597	·569	·542	28	67
68	·514	·487	·460	·433	·406	·380	·353	·326	·299	·272	27	68
69	·245	·219	·192	·166	·140	·114	·087	·061	·035	·008	26	69
70	4·982	·957	·931	·906	·880	·855	·829	·804	·778	·753	26	70
71	·727	·702	·678	·653	·628	·604	·579	·554	·529	·505	25	71
72	·480	·456	·432	·408	·384	·360	·336	·312	·288	·264	24	72
73	·240	·217	·193	·170	·147	·124	·100	·077	·054	·030	23	73
74	·007	·985	·962	·940	·917	·895	·873	·850	·828	·805	22	74
75	3·783	·761	·740	·718	·696	·675	·653	·631	·609	·588	22	75
76	·566	·545	·524	·504	·483	·462	·441	·420	·400	·379	21	76
77	·358	·338	·318	·298	·278	·258	·237	·217	·197	·177	20	77
78	·157	·138	·118	·099	·080	·061	·041	·022	·003	·983	19	78
79	2·964	·946	·927	·909	·890	·872	·853	·835	·816	·798	19	79
80	·779	·761	·744	·726	·708	·691	·673	·655	·637	·620	18	80
81	·602	·585	·568	·551	·534	·517	·500	·483	·466	·449	17	81
82	·432	·416	·400	·383	·367	·351	·335	·319	·302	·286	16	82
83	·270	·255	·239	·224	·208	·193	·177	·162	·146	·131	16	83
84	·115	·100	·085	·071	·056	·041	·026	·011	·997	·982	15	84
85	1·967	·953	·939	·925	·911	·897	·883	·869	·855	·841	14	85
86	·827	·814	·800	·787	·773	·760	·747	·733	·720	·706	13	86
87	·693	·680	·668	·655	·642	·630	·617	·604	·591	·579	13	87
88	·566	·554	·542	·530	·518	·506	·494	·482	·470	·458	12	88
89	·446	·435	·423	·412	·400	·389	·378	·366	·355	·343	11	89
90	·332	·321	·310	·300	·289	·278	·267	·256	·246	·235	11	90
91	·224	·214	·203	·193	·183	·173	·162	·152	·142	·131	10	91
92	·121	·111	·102	·092	·083	·073	·063	·054	·044	·035	10	92
93	·025	·016	·007	·998	·989	·980	·970	·961	·952	·943	9	93
94	0·934	·925	·917	·908	·900	·891	·882	·874	·865	·857	9	94
95	·848	·840	·832	·824	·816	·808	·800	·792	·784	·776	8	95
96	·768	·760	·753	·745	·738	·730	·722	·715	·707	·700	8	96
97	·692	·685	·678	·671	·664	·657	·649	·642	·635	·628	7	97
98	·621	·614	·608	·601	·595	·588	·581	·575	·568	·562	7	98
99	·555	...	...	...	...	...	...	...	...	...	...	99

TWO MALES.

3 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 3 PER CENT.

x	After Five Years from Purchase a_{xx} ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
25	17·656	·635	·614	·593	·572	·551	·529	·508	·487	·466	21	25
26	·445	·423	·402	·380	·358	·337	·315	·293	·271	·250	22	26
27	·228	·206	·183	·161	·138	·116	·094	·071	·049	·026	22	27
28	·004	·981	·958	·935	·912	·890	·867	·844	·821	·798	23	28
29	16·775	·751	·728	·704	·681	·657	·633	·610	·586	·563	24	29
30	·539	·515	·491	·467	·443	·419	·395	·371	·347	·323	24	30
31	·299	·274	·250	·225	·200	·176	·151	·126	·101	·077	25	31
32	·052	·027	·001	·976	·951	·926	·900	·875	·850	·824	25	32
33	15·799	·773	·747	·722	·696	·670	·644	·618	·593	·567	26	33
34	·541	·515	·488	·462	·435	·409	·382	·356	·329	·303	27	34
35	·276	·249	·222	·195	·168	·141	·114	·087	·060	·033	27	35
36	·006	·979	·951	·924	·896	·869	·841	·814	·786	·759	28	36
37	14·731	·703	·675	·646	·618	·590	·562	·534	·505	·477	28	37
38	·449	·421	·392	·364	·335	·307	·278	·250	·221	·193	29	38
39	·164	·135	·106	·077	·048	·019	·989	·960	·931	·902	29	39
40	13·873	·843	·814	·784	·755	·725	·695	·666	·636	·607	30	40
41	·577	·547	·517	·487	·457	·427	·396	·366	·336	·306	30	41
42	·276	·246	·215	·185	·154	·124	·094	·063	·033	·002	30	42
43	12·972	·941	·910	·879	·848	·818	·787	·756	·725	·694	31	43
44	·663	·632	·600	·569	·538	·507	·475	·444	·413	·381	31	44
45	·350	·318	·287	·255	·224	·192	·160	·129	·097	·066	32	45
46	·034	·002	·970	·938	·906	·875	·843	·811	·779	·747	32	46
47	11·715	·683	·651	·618	·586	·554	·522	·490	·457	·425	32	47
48	·393	·361	·328	·296	·263	·231	·198	·166	·133	·101	33	48
49	·068	·035	·003	·970	·937	·905	.872	·839	·806	·774	33	49
50	10·741	·708	·676	·643	·610	·578	·545	·512	·479	·447	33	50
51	·414	·381	·348	·315	·282	·250	·217	·184	·151	·118	33	51
52	·085	·052	·019	·986	·953	·920	·886	·853	·820	·787	33	52
53	9·754	·721	·688	·655	·622	·590	·557	·524	·491	·458	33	53
54	·425	·392	·359	·326	·293	·260	·227	·194	·161	·128	33	54
55	·095	·062	·029	·996	·963	·931	·898	·865	·832	·799	33	55
56	8·766	·733	·701	·668	·635	·603	·570	·537	·504	·472	33	56
57	·439	·406	·374	·341	·309	·276	·243	·211	·178	·146	33	57
58	·113	·081	·048	·016	·983	·951	·919	·886	·854	·821	32	58
59	7·789	·757	·725	·693	·661	·629	·596	·564	·532	·500	32	59
60	·468	·436	·405	·373	·341	·310	·278	·246	·214	·183	32	60
61	·151	·120	·088	·057	·026	·995	·963	·932	·901	·869	31	61
62	6·838	·807	·776	·745	·714	·683	·652	·621	·590	·559	31	62
63	·528	·498	·467	·437	·406	·376	·346	·315	·285	·254	30	63
64	·224	·194	·164	·134	·104	·075	·045	·015	·985	·955	30	64

TWO MALES.

3 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 3 PER CENT

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
65	5·925	·896	·866	·837	·808	·779	·749	·720	·691	·661	29	65
66	·632	·603	·574	·546	·517	·488	·459	·430	·402	·373	29	66
67	·344	·316	·288	·260	·232	·204	·176	·148	·120	·092	28	67
68	·064	·037	·009	·982	·954	·927	·900	·872	·845	·817	27	68
69	4·790	·763	·737	·710	·684	·657	·630	·604	·577	·551	27	69
70	·524	·498	·472	·446	·420	·395	·369	·343	·317	·291	26	70
71	·265	·240	·215	·190	·165	·140	·114	·089	·064	·039	25	71
72	·014	·990	·965	·941	·917	·893	·868	·844	·820	·795	24	72
73	3·771	·748	·724	·701	·677	·654	·630	·607	·583	·560	24	73
74	·536	·513	·491	·468	·446	·423	·400	·378	·355	·333	23	74
75	·310	·288	·266	·245	·223	·201	·179	·157	·136	·114	22	75
76	·092	·071	·050	·029	·008	·988	·967	·946	·925	·904	21	76
77	2·883	·863	·843	·823	·803	·783	·763	·743	·723	·703	20	77
78	·683	·664	·645	·625	·606	·587	·568	·549	·529	·510	19	78
79	·491	·473	·454	·436	·418	·400	·381	·363	·345	·326	18	79
80	·308	·291	·273	·256	·238	·221	·204	·186	·169	·151	17	80
81	·134	·118	·101	·085	·068	·052	·035	·019	·002	·986	17	81
82	1·969	·953	·938	·922	·906	·891	·875	·859	·843	·828	16	82
83	·812	·797	·782	·767	·752	·738	·723	·708	·693	·678	15	83
84	·663	·649	·635	·621	·607	·593	·579	·565	·551	·537	14	84
85	·523	·510	·496	·483	·470	·457	·443	·430	·417	·403	13	85
86	·390	·378	·365	·353	·340	·328	·316	·303	·291	·278	12	86
87	·266	·254	·243	·231	·219	·208	·196	·184	·172	·161	12	87
88	·149	·138	·127	·116	·105	·095	·084	·073	·062	·051	11	88
89	·040	·030	·019	·009	·999	·989	·978	·968	·958	·947	10	89
90	0·937	·928	·918	·909	·899	·890	·880	·871	·861	·852	10	90
91	·842	·833	·824	·815	·806	·798	·789	·780	·771	·762	9	91
92	·753	·745	·737	·728	·720	·712	·704	·696	·687	·679	8	92
93	·671	·663	·656	·648	·641	·633	·625	·618	·610	·603	8	93
94	·595	·588	·581	·574	·567	·560	·553	·546	·539	·532	7	94
95	·525	·519	·512	·506	·499	·493	·486	·480	·473	·467	7	95
96	·460	·454	·448	·442	·436	·431	·425	·419	·413	·407	6	96
97	·401	·396	·390	·385	·380	·375	·369	·364	·359	·353	5	97
98	·348	·343	·338	·333	·328	·324	·319	·314	·309	·304	5	98
99	·299	·295	·290	·286	·281	·277	·273	·268	·264	·259	4	99
100	·255	·251	·247	·243	·239	·235	·231	·227	·223	·219	4	100
101	·215	·211	·208	·204	·200	·197	·193	·189	·185	·182	4	101
102	·178	·174	·169	·165	·160	·156	·151	·147	·142	·138	5	102
103	·133	...	...	...	...	...	...	...	...	...	...	103

TWO MALES.

$3\frac{1}{2}$ PER CENT. SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. $3\frac{1}{2}$ PER CENT.

x	At Date of Purchase $a_{[xx]}$										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
20	17·643	·627	·612	·596	·581	·565	·549	·534	·518	·503	16	20
21	·487	·471	·455	·439	·423	·407	·390	·374	·358	·342	16	21
22	·326	·309	·293	·276	·260	·243	·226	·210	·193	·177	17	22
23	·160	·143	·126	·108	·091	·074	·057	·040	·022	·005	17	23
24	16·988	·970	·953	·935	·917	·900	·882	·864	·846	·829	18	24
25	·811	·793	·774	·756	·738	·720	·701	·683	·665	·646	18	25
26	·628	·609	·590	·572	·553	·534	·515	·496	·478	·459	19	26
27	·440	·421	·401	·382	·362	·343	·324	·304	·285	·265	19	27
28	·246	·226	·206	·186	·166	·146	·126	·106	·086	·066	20	28
29	·046	·026	·005	**·985**	**·964**	**·944**	**·924**	**·903**	**·883**	**·862**	20	29
30	15·842	·821	·800	·778	·757	·736	·715	·694	·672	·651	21	30
31	·630	·608	·587	·565	·543	·522	·500	·478	·456	·435	22	31
32	·413	·391	·369	·346	·324	·302	·280	·258	·235	·213	22	32
33	·191	·168	·145	·123	·100	·077	·054	·031	·009	**·986**	23	33
34	14·963	·940	·916	·893	·869	·846	·823	·799	·776	·752	23	34
35	·729	·705	·681	·657	·633	·609	·585	·561	·537	·513	24	35
36	·489	·465	·440	·416	·391	·367	·343	·318	·294	·269	24	36
37	·245	·220	·195	·170	·145	·120	·095	·070	·045	·020	25	37
38	13·995	·969	·944	·918	·893	·867	·841	·816	·790	·765	26	38
39	·739	·713	·687	·661	·635	·609	·583	·557	·531	·505	26	39
40	·479	·453	·426	·400	·373	·347	·320	·294	·267	·241	27	40
41	·214	·187	·160	·133	·106	·079	·052	·025	**·998**	**·971**	27	41
42	12·944	·917	·889	·862	·834	·807	·780	·752	·725	·697	27	42
43	·670	·642	·614	·586	·558	·531	·503	·475	·447	·419	28	43
44	·391	·363	·334	·306	·278	·250	·221	·193	·165	·136	28	44
45	·108	·079	·051	·022	**·994**	**·965**	**·936**	**·908**	**·879**	**·851**	29	45
46	11·822	·793	·764	·735	·706	·677	·648	·619	·590	·561	29	46
47	·532	·503	·474	·444	·415	·386	·357	·328	·298	·269	29	47
48	·240	·210	·181	·151	·122	·092	·062	·033	·003	**·974**	30	48
49	10·944	·914	·884	·855	·825	·795	·765	·735	·706	·676	30	49
50	·646	·616	·586	·556	·526	·496	·466	·436	·406	·376	30	50
51	·346	·316	·286	·256	·226	·196	·165	·135	·105	·075	30	51
52	·045	·015	**·985**	**·954**	**·924**	**·894**	**·864**	**·834**	**·803**	**·773**	30	52
53	9·743	·713	·682	·652	·621	·591	·561	·530	·500	·469	30	53
54	·439	·409	·378	·348	·318	·288	·257	·227	·197	·166	30	54
55	·136	·106	·075	·045	·015	**·985**	**·954**	**·924**	**·894**	**·863**	30	55
56	8·833	·803	·773	·742	·712	·682	·652	·622	·591	·561	30	56
57	·531	·501	·471	·440	·410	·380	·350	·320	·289	·259	30	57
58	·229	·199	·169	·139	·109	·080	·050	·020	**·990**	**·960**	30	58
59	7·930	·900	·870	·841	·811	·781	·751	·721	·692	·662	30	59

TWO MALES.

$3\frac{1}{2}$ PER CENT. SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. $3\frac{1}{2}$ PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
60	7·632	·603	·573	·544	·514	·485	·456	·426	·397	·367	29	60
61	·338	·309	·280	·250	·221	·192	·163	·134	·104	·075	29	61
62	·046	·017	·988	·960	·931	·902	·873	·844	·816	·787	29	62
63	6·758	·730	·701	·673	·644	·616	·588	·559	·531	·502	28	63
64	·474	·446	·418	·390	·362	·334	·306	·278	·250	·222	28	64
65	·194	·167	·139	·112	·084	·057	·029	·002	·974	·947	28	65
66	5·919	·892	·865	·838	·811	·784	·757	·730	·703	·676	27	66
67	·649	·623	·596	·570	·543	·517	·491	·464	·438	·411	26	67
68	·385	·359	·333	·308	·282	·256	·230	·204	·179	·153	26	68
69	·127	·102	·077	·051	·026	·001	·976	·951	·925	·900	25	69
70	4·875	·850	·826	·801	·777	·752	·727	·703	·678	·654	25	70
71	·629	·605	·581	·558	·534	·510	·486	·462	·439	·415	24	71
72	·391	·368	·345	·321	·298	·275	·252	·229	·205	·182	23	72
73	·159	·137	·114	·092	·069	·047	·024	·002	·979	·957	23	73
74	3·934	·912	·890	·869	·847	·825	·803	·781	·760	·738	22	74
75	·716	·695	·674	·653	·632	·611	·590	·569	·548	·527	21	75
76	·506	·486	·465	·445	·425	·405	·384	·364	·344	·323	20	76
77	·303	·284	·264	·245	·225	·206	·186	·167	·147	·128	20	77
78	·108	·089	·070	·052	·033	·014	·995	·976	·958	·939	19	78
79	2·920	·902	·884	·866	·848	·830	·811	·793	·775	·757	18	79
80	·739	·722	·704	·687	·670	·653	·635	·618	·601	·583	17	80
81	·566	·549	·533	·516	·500	·483	·466	·450	·433	·417	17	81
82	·400	·384	·368	·353	·337	·321	·305	·289	·274	·258	16	82
83	·242	·227	·212	·196	·181	·166	·151	·136	·120	·105	15	83
84	·090	·076	·061	·047	·032	·018	·003	·989	·974	·960	15	84
85	1·945	·931	·917	·904	·890	·876	·862	·848	·835	·821	14	85
86	·807	·794	·781	·768	·755	·742	·728	·715	·702	·689	13	86
87	·676	·664	·651	·639	·626	·614	·601	·589	·576	·564	13	87
88	·551	·539	·527	·515	·503	·492	·480	·468	·456	·444	12	88
89	·432	·421	·409	·398	·387	·376	·364	·353	·342	·330	11	89
90	·319	·308	·298	·287	·277	·266	·255	·245	·234	·224	11	90
91	·213	·203	·193	·183	·173	·163	·152	·142	·132	·122	10	91
92	·112	·102	·093	·083	·074	·064	·054	·045	·035	·026	10	92
93	·016	·007	·998	·989	·980	·971	·962	·953	·944	·935	9	93
94	0·926	·918	·909	·901	·892	·884	·876	·867	·859	·850	8	94
95	·842	·834	·826	·818	·810	·802	·794	·786	·778	·770	8	95
96	·762	·755	·747	·740	·732	·725	·717	·710	·702	·695	8	96
97	·687	·680	·673	·666	·659	·652	·645	·638	·631	·624	7	97
98	·617	·611	·604	·598	·591	·585	·578	·572	·565	·559	7	98
99	·552	...	...	...	...	...	...	...	...	...	...	99

TWO MALES.

$3\frac{1}{2}$ PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. $3\frac{1}{2}$ PER CENT.

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
25	16·465	·447	·429	·411	·393	·375	·356	·338	·320	·302	18	25
26	·284	·265	·247	·228	·209	·191	·172	·153	·134	·116	19	26
27	·097	·078	·059	·039	·020	·001	·982	·963	·943	·924	19	27
28	15·905	·885	·865	·845	·825	·805	·785	·765	·745	·725	20	28
29	·705	·685	·664	·644	·623	·603	·583	·562	·542	·521	20	29
30	·501	·480	·459	·438	·417	·397	·376	·355	·334	·313	21	30
31	·292	·270	·249	·227	·206	·184	·162	·141	·119	·098	22	31
32	·076	·054	·032	·009	·987	·965	·943	·921	·898	·876	22	32
33	14·854	·831	·808	·786	·763	·740	·717	·694	·672	·649	23	33
34	·626	·603	·579	·556	·533	·510	·486	·463	·440	·416	23	34
35	·393	·369	·345	·321	·297	·274	·250	·226	·202	·178	24	35
36	·154	·130	·105	·081	·056	·032	·007	·983	·958	·934	25	36
37	13·909	·884	·859	·834	·809	·784	·759	·734	·709	·684	25	37
38	·659	·634	·608	·583	·557	·532	·506	·481	·455	·430	26	38
39	·404	·378	·352	·326	·300	·274	·247	·221	·195	·169	26	39
40	·143	·116	·090	·063	·037	·010	·983	·957	·930	·904	27	40
41	12·877	·850	·823	·796	·769	·742	·715	·688	·661	·634	27	41
42	·607	·580	·552	·525	·497	·470	·442	·415	·387	·360	28	42
43	·332	·304	·276	·248	·220	·192	·163	·135	·107	·079	28	43
44	·051	·023	·994	·966	·938	·910	·881	·853	·825	·796	28	44
45	11·768	·739	·710	·682	·653	·624	·595	·566	·538	·509	29	45
46	·480	·451	·422	·392	·363	·334	·305	·276	·246	·217	29	46
47	·188	·159	·129	·100	·070	·041	·011	·982	·952	·923	30	47
48	10·893	·863	·833	·803	·773	·744	·714	·684	·654	·624	30	48
49	·594	·564	·534	·504	·474	·444	·414	·384	·354	·324	30	49
50	·294	·264	·233	·203	·173	·143	·112	·082	·052	·021	30	50
51	9·991	·961	·930	·900	·869	·839	·808	·778	·747	·717	31	51
52	·686	·655	·625	·594	·564	·533	·502	·472	·441	·411	31	52
53	·380	·349	·319	·288	·257	·227	·196	·165	·134	·104	31	53
54	·073	·042	·011	·981	·950	·919	·888	·857	·827	·796	31	54
55	8·765	·734	·704	·673	·642	·612	·581	·550	·519	·489	31	55
56	·458	·427	·397	·366	·335	·305	·274	·243	·212	·182	31	56
57	·151	·120	·090	·059	·029	·998	·967	·937	·906	·876	31	57
58	7·845	·815	·784	·754	·723	·693	·662	·632	·601	·571	31	58
59	·540	·510	·479	·449	·419	·389	·358	·328	·298	·267	30	59
60	·237	·207	·177	·147	·117	·087	·057	·027	·997	·967	30	60
61	6·937	·907	·878	·848	·818	·789	·759	·729	·699	·670	30	61
62	·640	·611	·581	·552	·522	·493	·464	·434	·405	·375	29	62
63	·346	·317	·288	·259	·230	·202	·173	·144	·115	·086	29	63
64	·057	·028	·000	·971	·943	·914	·885	·857	·828	·800	29	64

TWO MALES.

$3\frac{1}{2}$ PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. $3\frac{1}{2}$ PER CENT.

x	After Five Years from Purchase a_{xx} ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
65	5·771	·743	·715	·687	·659	·631	·603	·575	·547	·519	28	65
66	·491	·464	·436	·409	·381	·354	·326	·299	·271	·244	28	66
67	·216	·189	·162	·135	·108	·082	·055	·028	·001	·974	27	67
68	4·947	·921	·894	·868	·842	·816	·789	·763	·737	·710	26	68
69	·684	·658	·633	·607	·581	·556	·530	·504	·478	·453	26	69
70	·427	·402	·377	·352	·327	·302	·277	·252	·227	·202	25	70
71	·177	·153	·129	·104	·080	·056	·032	·008	·983	·959	24	71
72	3·935	·912	·888	·865	·841	·818	·794	·771	·747	·724	24	72
73	·700	·677	·654	·632	·609	·586	·563	·540	·518	·495	23	73
74	·472	·450	·428	406	·384	·363	·341	·319	·297	·275	22	74
75	·253	·232	·211	·189	·168	·147	·126	·105	·083	·062	21	75
76	·041	·021	·000	·980	·960	·940	·919	·899	·879	·858	20	76
77	2·838	·819	·799	·780	·760	·741	·721	·702	·682	·663	20	77
78	·643	·624	·606	·587	·568	·550	·531	·512	·493	·475	19	78
79	·456	·438	·420	·402	·384	·367	·349	·331	·313	·295	18	79
80	·277	·260	·243	·226	·209	·192	·175	·158	·141	·124	17	80
81	·107	·091	·074	·058	·042	·026	·009	·993	·977	·960	16	81
82	1·944	·929	·913	·898	·883	·868	·852	·837	·822	·806	15	82
83	·791	·776	·762	·747	·733	·718	·703	·689	·674	·660	15	83
84	·645	·631	·617	·604	·590	·576	·562	·548	·535	·521	14	84
85	·507	·494	·481	·468	·455	·442	·428	·415	·402	·389	13	85
86	·376	·364	·352	·339	·327	·315	·303	·291	·278	·266	12	86
87	·254	·242	·231	·219	·208	·196	·184	·173	·161	·150	12	87
88	·138	·127	·116	·106	·095	·084	·073	·062	·052	·041	11	88
89	·030	·020	·010	·000	·990	·980	·969	·959	·949	·939	10	89
90	0·929	·920	·910	·901	·891	·882	·873	·863	·854	·844	9	90
91	·835	·826	·817	·809	·800	·791	·782	·773	·765	·756	9	91
92	·747	·739	·731	·723	·715	·707	·698	·690	·682	·674	8	92
93	·666	·659	·651	·644	·636	·629	·621	·614	·606	·599	8	93
94	·591	·584	·577	·570	·563	·556	·549	·542	·535	·528	7	94
95	·521	·515	·508	·502	·495	·489	·483	·476	·470	·463	6	95
96	·457	·451	·445	·440	·434	·428	·422	·416	·411	·405	6	96
97	·399	·394	·388	·383	·377	·372	·367	·361	·356	·350	5	97
98	·345	·340	·335	·331	·326	·321	·316	·311	·307	·302	5	98
99	·297	·293	·288	·284	·279	·275	·271	·266	·262	·257	4	99
100	·253	·249	·245	·241	·237	·234	·230	·226	·222	·218	4	100
101	·214	·210	·207	·203	·199	·196	·192	·188	·184	·181	4	101
102	·177	·173	·168	·164	·159	·155	·150	·146	·141	·137	5	102
103	·132	...	...	...	...	...	...	...	...	...	...	103

TWO MALES.

4 PER CENT. SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 4 PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
20	16·433	·420	·407	·393	·380	·367	·354	·341	·327	·314	13	20
21	·301	·287	·274	·260	·247	·233	·219	·206	·192	·179	14	21
22	·165	·151	·137	·123	·109	·095	·080	·066	·052	·038	14	22
23	·024	·009	**·995**	**·980**	**·965**	**·951**	**·936**	**·921**	**·906**	**·892**	15	23
24	15·877	·862	·847	·831	·816	·801	·786	·771	·755	·740	15	24
25	·725	·709	·694	·678	·662	·647	·631	·615	·599	·584	16	25
26	·568	·552	·535	·519	·503	·487	·470	·454	·438	·421	16	26
27	·405	·388	·371	·355	·338	·321	·304	·287	·271	·254	17	27
28	·237	·220	·202	·185	·168	·151	·133	·116	·099	·081	17	28
29	·064	·046	·028	·011	**·993**	**·975**	**·957**	**·939**	**·922**	**·904**	18	29
30	14·886	·868	·849	·831	·812	·794	·775	·757	·738	·720	19	30
31	·701	·682	·663	·644	·625	·607	·588	·569	·550	·531	19	31
32	·512	·492	·473	·453	·434	·414	·394	·375	·355	·336	20	32
33	·316	·296	·276	·256	·236	·216	·195	·175	·155	·135	20	33
34	·115	·094	·074	·053	·032	·012	**·991**	**·970**	**·949**	**·929**	21	34
35	13·908	·887	·866	·844	·823	·802	·781	·760	·738	·717	21	35
36	·696	·674	·652	·631	·609	·587	·565	·543	·522	·500	22	36
37	·478	·456	·433	·411	·389	·367	·344	·322	·300	·277	22	37
38	·255	·232	·209	·187	·164	·141	·118	·095	·073	·050	23	38
39	·027	·004	**·980**	**·957**	**·933**	**·910**	**·887**	**·863**	**·840**	**·816**	23	39
40	12·793	·769	·745	·722	·698	·674	·650	·626	·603	·579	24	40
41	·555	·531	·506	·482	·457	·433	·409	·384	·360	·335	24	41
42	·311	·286	·262	·237	·212	·188	·163	·138	·113	·089	25	42
43	·064	·039	·013	**·988**	**·962**	**·937**	**·912**	**·886**	**·861**	**·835**	25	43
44	11·810	·784	·759	·733	·708	·682	·656	·631	·605	·580	26	44
45	·554	·528	·502	·476	·450	·424	·397	·371	·345	·319	26	45
46	·293	·266	·240	·213	·187	·160	·133	·107	·080	·054	27	46
47	·027	·000	**·973**	**·947**	**·920**	**·893**	**·866**	**·839**	**·813**	**·786**	27	47
48	10·759	·732	·705	·677	·650	·623	·596	·569	·541	·514	27	48
49	·487	·460	·432	·405	·377	·350	·323	·295	·268	·240	27	49
50	·213	·185	·158	·130	·102	·075	·047	·019	**·991**	**·964**	28	50
51	9·936	·908	·880	·852	·824	·797	·769	·741	·713	·685	28	51
52	·657	·629	·601	·573	·545	·517	·489	·461	·433	·405	28	52
53	·377	·349	·320	·292	·264	·236	·207	·179	·151	·122	28	53
54	·094	·066	·037	·009	**·981**	**·953**	**·924**	**·896**	**·868**	**·839**	28	54
55	8·811	·783	·754	·726	·698	·670	·641	·613	·585	·556	28	55
56	·528	·500	·471	·443	·415	·387	·358	·330	·302	·273	28	56
57	·245	·217	·188	·160	·132	·104	·075	·047	·019	**·990**	28	57
58	7·962	·934	·906	·877	·849	·821	·793	·765	·736	·708	28	58
59	·680	·652	·624	·596	·568	·540	·512	·484	·456	·428	28	59

TWO MALES.

SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE.

4 PER CENT. | 4 PER CENT.

x	At Date of Purchase $a_{[xx]}$										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
60	7·400	·372	·344	·316	·288	·261	·233	·205	·177	·149	28	60
61	·121	·093	·066	·038	·011	·983	·955	·928	·900	·893	28	61
62	6·845	·818	·790	·763	·736	·709	·681	·654	·627	·599	27	62
63	·572	·545	·518	·491	·464	·437	·409	·382	·355	·328	27	63
64	·301	·274	·248	·221	·195	·168	·141	·115	·088	·062	27	64
65	·035	·009	·982	·956	·930	·904	·877	·851	·825	·798	26	65
66	5·772	·746	·720	·695	·669	·643	·617	·591	·566	·540	26	66
67	·514	·489	·463	·438	·413	·388	·362	·337	·312	·286	25	67
68	·261	·236	·212	·187	·162	·138	·113	·088	·063	·039	25	68
69	·014	·990	·965	·941	·917	·893	·868	·844	·820	·795	24	69
70	4·771	·747	·724	·700	·677	·653	·629	·606	·582	·559	24	70
71	·535	·512	·489	·466	·443	·420	·396	·373	·350	·327	23	71
72	·304	·282	·259	·237	·214	·192	·170	·147	·125	·102	22	72
73	·080	·058	·037	·015	·993	·972	·950	·928	·906	·885	22	73
74	3·863	·842	·821	·800	·779	·758	·736	·715	·694	·673	21	74
75	·652	·632	·611	·591	·570	·550	·530	·509	·489	·468	20	75
76	·448	·428	·409	·389	·369	·350	·330	·310	·290	·271	20	76
77	·251	·232	·213	·194	·175	·156	·137	·118	·099	·080	19	77
78	·061	·043	·024	·006	·987	·969	·951	·932	·914	·895	18	78
79	2·877	·859	·842	·824	·807	·789	·771	·754	·736	·719	18	79
80	·701	·684	·667	·650	·633	·617	·600	·583	·566	·549	17	80
81	·532	·516	·500	·483	·467	·451	·435	·419	·402	·386	16	81
82	·370	·354	·339	·323	·308	·292	·276	·261	·245	·230	16	82
83	·214	·199	·184	·169	·154	·140	·125	·110	·095	·080	15	83
84	·065	·051	·037	·022	·008	·994	·980	·966	·951	·937	14	84
85	1·923	·910	·896	·883	·869	·856	·842	·829	·815	·802	14	85
86	·788	·775	·762	·749	·736	·723	·710	·697	·684	·671	13	86
87	·658	·646	·633	·621	·609	·597	·584	·572	·560	·547	12	87
88	·535	·523	·512	·500	·489	·477	·465	·454	·442	·431	12	88
89	·419	·408	·397	·385	·374	·363	·352	·341	·329	·318	11	89
90	·307	·297	·286	·276	·265	·255	·244	·234	·223	·213	11	90
91	·202	·192	·182	·172	·162	·153	·143	·133	·123	·113	10	91
92	·103	·094	·084	·075	·065	·056	·046	·037	·027	·018	10	92
93	·008	·999	·990	·981	·972	·964	·955	·946	·937	·928	9	93
94	0·919	·911	·902	·894	·885	·877	·869	·860	·852	·843	8	94
95	·835	·827	·819	·812	·804	·796	·788	·780	·773	·765	8	95
96	·757	·750	·742	·735	·727	·720	·712	·705	·697	·690	8	96
97	·682	·675	·668	·661	·654	·648	·641	·634	·627	·620	7	97
98	·613	·607	·600	·594	·587	·581	·574	·568	·561	·555	7	98
99	·548	...	...	...	...	...	...	...	...	...	...	99

TWO MALES.

4 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 4 PER CENT.

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
25	15·402	·387	·371	·356	·340	·325	·309	·294	·278	·263	16	25
26	·247	·231	·215	·198	·182	·166	·150	·134	·117	·101	16	26
27	·085	·068	·052	·035	·018	·002	·985	·968	·951	·935	17	27
28	14·918	·901	·884	·866	·849	·832	·815	·798	·780	·763	17	28
29	·746	·728	·710	·692	·674	·657	·639	·621	·603	·585	18	29
30	·567	·549	·530	·512	·494	·476	·457	·439	·421	·402	18	30
31	·384	·365	·346	·327	·308	·290	·271	·252	·233	·214	19	31
32	·195	·176	·156	·137	·117	·098	·078	·059	·039	·020	20	32
33	·000	·980	·960	·940	·920	·900	·879	·859	·839	·819	20	33
34	13·799	·778	·758	·737	·716	·696	·675	·654	·633	·613	21	34
35	·592	·571	·550	·528	·507	·486	·465	·444	·422	·401	21	35
36	·380	·358	·336	·315	·293	·271	·249	·227	·206	·184	22	36
37	·162	·140	·117	·095	·073	·051	·028	·006	·984	·961	22	37
38	12·939	·916	·893	·870	·847	·825	·802	·779	·756	·733	23	38
39	·710	·687	·663	·640	·616	·593	·570	·546	·523	·499	23	39
40	·476	·452	·428	·404	·380	·356	·332	·308	·284	·260	24	40
41	·236	·212	·187	·163	·138	·114	·090	·065	·041	·016	24	41
42	11·992	·967	·942	·917	·892	·867	·842	·817	·792	·767	25	42
43	·742	·717	·691	·666	·640	·615	·590	·564	·539	·513	25	43
44	·488	·462	·436	·410	·384	·359	·333	·307	·281	·255	26	44
45	·229	·203	·177	·150	·124	·098	·072	·046	·019	·993	26	45
46	10·967	·940	·913	·887	·860	·833	·806	·779	·753	·726	27	46
47	·699	·672	·645	·618	·591	·564	·536	·509	·482	·455	27	47
48	·428	·401	·373	·346	·318	·291	·263	·236	·208	·181	28	48
49	·153	·125	·098	·070	·042	·015	·987	·959	·931	·904	28	49
50	9·876	·848	·820	·792	·764	·736	·708	·680	·652	·624	28	50
51	·596	·568	·539	·511	·483	·455	·426	·398	·370	·341	28	51
52	·313	·285	·256	·228	·199	·171	·143	·114	·086	·057	28	52
53	·029	·000	·972	·943	·914	·886	·857	·828	·799	·771	29	53
54	8·742	·713	·685	·656	·627	·599	·570	·541	·512	·484	29	54
55	·455	·426	·397	·369	·340	·311	·282	·253	·225	·196	29	55
56	·167	·138	·109	·081	·052	·023	·994	·965	·937	·908	29	56
57	7·879	·850	·821	·793	·764	·735	·706	·677	·649	·620	29	57
58	·591	·562	·534	·505	·476	·448	·419	·390	·361	·333	29	58
59	·304	·275	·247	·218	·190	·161	·132	·104	·075	·047	29	59
60	·018	·990	·961	·933	·904	·876	·848	·819	·791	·762	28	60
61	6·734	·706	·678	·649	·621	·593	·565	·537	·508	·480	28	61
62	·452	·424	·396	·368	·340	·312	·284	·256	·228	·200	28	62
63	·172	·144	·117	·089	·062	·034	·006	·979	·951	·924	28	63
64	5·896	·869	·842	·814	·787	·760	·733	·706	·678	·651	27	64

TWO MALES.

4 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 4 PER CENT.

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
65	5·624	·597	·570	·544	·517	·490	·463	·436	·410	·383	27	65
66	·356	·330	·303	·277	·251	·225	·198	·172	·146	·119	26	66
67	·093	·067	·041	·016	·990	·964	·938	·912	·887	·861	26	67
68	4·835	·810	·784	·759	·733	·708	·683	·657	·632	·606	25	68
69	·581	·556	·532	·507	·482	·458	·433	·408	·383	·359	25	69
70	·334	·310	·286	·262	·238	·214	·190	·166	·142	·118	24	70
71	·094	·071	·047	·024	·000	·977	·953	·930	·906	·883	24	71
72	3·859	·836	·813	·791	·768	·745	·722	·699	·677	·654	23	72
73	·631	·609	·587	·565	·543	·521	·499	·477	·455	·433	22	73
74	·411	·390	·368	·347	·326	·305	·283	·262	·241	·219	21	74
75	·198	·177	·157	·136	·116	·095	·074	·054	·033	·013	21	75
76	2·992	·972	·952	·933	·913	·893	·873	·853	·834	·814	20	76
77	·794	·775	·756	·737	·718	·699	·679	·660	·641	·622	19	77
78	·603	·585	·567	·548	·530	·512	·494	·476	·457	·439	18	78
79	·421	·404	·386	·369	·351	·334	·316	·299	·281	·264	18	79
80	·246	·229	·213	·196	·179	·163	·146	·129	·112	·096	17	80
81	·079	·063	·047	·032	·016	·000	·984	·968	·953	·937	16	81
82	1·921	·906	·891	·875	·860	·845	·830	·815	·799	·784	15	82
83	·769	·755	·740	·726	·712	·698	·683	·669	·655	·640	14	83
84	·626	·612	·599	·585	·572	·558	·544	·531	·517	·504	14	84
85	·490	·477	·464	·452	·439	·426	·413	·400	·388	·375	13	85
86	·362	·350	·338	·326	·314	·302	·289	·277	·265	·253	12	86
87	·241	·230	·218	·207	·196	·185	·173	·162	·151	·139	11	87
88	·128	·117	·107	·096	·085	·075	·064	·053	·042	·032	11	88
89	·021	·011	·001	·991	·981	·971	·961	·951	·941	·931	10	89
90	0·921	·912	·902	·893	·884	·875	·865	·856	·847	·837	9	90
91	·828	·819	·811	·802	·793	·785	·776	·767	·758	·750	9	91
92	·741	·733	·725	·717	·709	·701	·693	·685	·677	·669	8	92
93	·661	·654	·646	·639	·631	·624	·616	·609	·601	·594	8	93
94	·586	·579	·572	·565	·558	·552	·545	·538	·531	·524	7	94
95	·517	·511	·504	·498	·492	·486	·479	·473	·467	·460	6	95
96	·454	·448	·442	·437	·431	·425	·419	·413	·408	·402	6	96
97	·396	·391	·385	·380	·375	·370	·364	·359	·354	·348	5	97
98	·343	·338	·333	·329	·324	·319	·314	·309	·305	·300	5	98
99	·295	·291	·286	·282	·278	·274	·269	·265	·261	·256	4	99
100	·252	·248	·244	·240	·236	·232	·228	·224	·220	·216	4	100
101	·212	·208	·205	·201	·198	·194	·190	·187	·183	·180	4	101
102	·176	·172	·167	·163	·158	·154	·150	·145	·141	·136	4	102
103	·132	...	...	...	...	...	...	...	...	...	...	103

TWO MALES.

5 PER CENT. SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 5 PER CENT.

x	At Date of Purchase $a_{[xx]}$										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
20	14·399	·389	·380	·370	·361	·351	·341	·332	·322	·313	10	20
21	·303	·293	·283	·273	·263	·254	·244	·234	·224	·214	10	21
22	·204	·194	·183	·173	·162	·152	·142	·131	·121	·110	10	22
23	·100	·089	·078	·068	·057	·046	·035	·024	·014	·003	11	23
24	13·992	·981	·969	·958	·946	·935	·924	·912	·901	·889	11	24
25	·878	·866	·855	·843	·831	·820	·808	·796	·784	·773	12	25
26	·761	·749	·736	·724	·712	·700	·687	·675	·663	·650	12	26
27	·638	·625	·613	·600	·587	·575	·562	·549	·536	·524	13	27
28	·511	·498	·485	·472	·459	·446	·432	·419	·406	·393	13	28
29	·380	·366	·353	·339	·325	·312	·298	·284	·270	·257	14	29
30	·243	·229	·215	·200	·186	·172	·158	·144	·129	·115	14	30
31	·101	·086	·071	·057	·042	·027	·012	**·997**	**·983**	**·968**	15	31
32	12·953	·938	·923	·907	·892	·877	·862	·847	·831	·816	15	32
33	·801	·785	·769	·754	·738	·722	·706	·690	·675	·659	16	33
34	·643	·627	·610	·594	·578	·562	·545	·529	·513	·496	16	34
35	·480	·463	·446	·429	·412	·396	·379	·362	·345	·328	17	35
36	·311	·294	·276	·259	·242	·225	·207	·190	·173	·155	17	36
37	·138	·120	·102	·084	·066	·049	·031	·013	**·995**	**·977**	18	37
38	11·959	·941	·922	·904	·885	·867	·849	·830	·812	·793	18	38
39	·775	·756	·737	·718	·699	·681	·662	·643	·624	·605	19	39
40	·586	·567	·547	·528	·508	·489	·469	·450	·430	·411	20	40
41	·391	·371	·351	·331	·311	·292	·272	·252	·232	·212	20	41
42	·192	·172	·151	·131	·110	·090	·069	·049	·028	·008	21	42
43	10·987	·966	·945	·924	·903	·883	·862	·841	·820	·799	21	43
44	·778	·757	·735	·714	·692	·671	·650	·628	·607	·585	21	44
45	·564	·542	·520	·498	·476	·455	·433	·411	·389	·367	22	45
46	·345	·323	·301	·278	·256	·234	·212	·190	·167	·145	22	46
47	·123	·100	·078	·055	·032	·010	**·987**	**·964**	**·941**	**·919**	23	47
48	9·896	·873	·850	·827	·804	·781	·757	·734	·711	·688	23	48
49	·665	·642	·618	·595	·571	·548	·525	·501	·478	·454	23	49
50	·431	·407	·384	·360	·336	·313	·289	·265	·241	·218	24	50
51	·194	·170	·146	·122	·098	·074	·049	·025	·001	**·977**	24	51
52	8·953	·929	·904	·880	·856	·832	·807	·783	·759	·734	24	52
53	·710	·686	·661	·637	·612	·588	·563	·539	·514	·490	25	53
54	·465	·440	·416	·391	·367	·342	·317	·293	·268	·244	25	54
55	·219	·194	·169	·144	·119	·095	·070	·045	·020	**·995**	25	55
56	7·970	·945	·920	·895	·870	·845	·820	·795	·770	·745	25	56
57	·720	·695	·670	·645	·620	·595	·570	·545	·520	·495	25	57
58	·470	·445	·420	·395	·370	·345	·320	·295	·270	·245	25	58
59	·220	·195	·170	·145	·120	·095	·070	·045	·020	**·995**	25	59

TWO MALES.

5 PER CENT. **SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE.** 5 PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
60	6·970	·945	·920	·895	·870	·845	·820	·795	·770	·745	25	60
61	·720	·695	·670	·646	·621	·596	·571	·546	·522	·497	25	61
62	·472	·447	·423	·398	·373	·349	·324	·299	·274	·250	25	62
63	·225	·201	·176	·152	·127	·103	·078	·054	·029	·005	25	63
64	5·980	·956	·931	·907	·883	·859	·834	·810	·786	·761	24	64
65	·737	·713	·689	·665	·641	·617	·593	·569	·545	·521	24	65
66	·497	·473	·450	·426	·403	·379	·355	·332	·308	·285	24	66
67	·261	·238	·215	·191	·168	·145	·122	·099	·075	·052	23	67
68	·029	·006	**·983**	**·960**	**·937**	**·915**	**·892**	**·869**	**·846**	**·823**	23	68
69	4·800	·778	·755	·733	·710	·688	·665	·643	·620	·598	23	69
70	·575	·553	·531	·509	·487	·466	·444	·422	·400	·378	22	70
71	·356	·335	·313	·292	·270	·249	·227	·206	·184	·163	22	71
72	·141	·120	·099	·078	·057	·036	·015	**·994**	**·973**	**·952**	21	72
73	3·931	·911	·890	·870	·849	·829	·809	·788	·768	·747	20	73
74	·727	·707	·687	·668	·648	·628	·608	·588	·569	·549	20	74
75	·529	·510	·491	·471	·452	·433	·414	·395	·375	·356	19	75
76	·337	·318	·300	·281	·262	·244	·225	·206	·187	·169	19	76
77	·150	·132	·114	·096	·078	·060	·042	·024	·006	**·988**	18	77
78	2·970	·953	·935	·918	·900	·883	·865	·848	·830	·813	18	78
79	·795	·778	·761	·745	·728	·711	·694	·677	·661	·644	17	79
80	·627	·611	·595	·579	·563	·547	·530	·514	·498	·482	16	80
81	·466	·450	·435	·419	·404	·388	·372	·357	·341	·326	16	81
82	·310	·295	·280	·265	·250	·236	·221	·206	·191	·176	15	82
83	·161	·147	·132	·118	·104	·090	·075	·061	·047	·032	14	83
84	·018	·004	**·991**	**·977**	**·963**	**·950**	**·936**	**·922**	**·908**	**·895**	14	84
85	1·881	·868	·855	·842	·829	·816	·802	·789	·776	·763	13	85
86	·750	·738	·725	·713	·700	·688	·675	·663	·650	·638	13	86
87	·625	·613	·601	·589	·577	·566	·554	·542	·530	·518	12	87
88	·506	·495	·483	·472	·460	·449	·438	·426	·415	·403	11	88
89	·392	·381	·370	·360	·349	·338	·327	·316	·306	·295	11	89
90	·284	·274	·264	·253	·243	·233	·223	·213	·202	·192	10	90
91	·182	·172	·162	·153	·143	·133	·123	·113	·104	·094	10	91
92	·084	·075	·066	·056	·047	·038	·029	·020	·010	·001	9	92
93	0·992	·983	·975	·966	·957	·949	·940	·931	·922	·914	9	93
94	·905	·897	·889	·880	·872	·864	·856	·848	·839	·831	8	94
95	·823	·815	·808	·800	·792	·785	·777	·769	·761	·754	8	95
96	·746	·739	·731	·724	·717	·710	·702	·695	·688	·680	7	96
97	·673	·666	·659	·653	·646	·639	·632	·625	·619	·612	7	97
98	·605	·599	·592	·586	·579	·573	·567	·560	·554	·547	6	98
99	·541	...	...	...	...	...	...	...	...	...	...	99

TWO MALES.

5 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 5 PER CENT.

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
25	13·596	·584	·573	·561	·549	·538	·526	·514	·502	·491	12	25
26	·479	·467	·455	·442	·430	·418	·406	·394	·381	·369	12	26
27	·357	·344	·332	·319	·307	·294	·281	·269	·256	·244	13	27
28	·231	·218	·205	·191	·178	·165	·152	·139	·125	·112	13	28
29	·099	·085	·071	·058	·044	·030	·016	·002	·989	·975	14	29
30	12·961	·947	·933	·919	·905	·891	·876	·862	·848	·834	14	30
31	·820	·805	·791	·776	·761	·747	·732	·717	·702	·688	15	31
32	·673	·658	·642	·627	·612	·597	·581	·566	·551	·535	15	32
33	·520	·504	·488	·473	·457	·441	·425	·409	·394	·378	16	33
34	·362	·346	·329	·313	·297	·281	·264	·248	·232	·215	16	34
35	·199	·182	·165	·148	·131	·115	·098	·081	·064	·047	17	35
36	·030	·013	·995	·978	·960	·943	·926	·908	·891	·873	17	36
37	11·856	·838	·820	·802	·784	·766	·748	·730	·712	·694	18	37
38	·676	·658	·639	·621	·602	·584	·565	·547	·528	·510	19	38
39	·491	·472	·453	·434	·415	·396	·376	·357	·338	·319	19	39
40	·300	·280	·261	·241	·222	·202	·182	·163	·143	·124	20	40
41	·104	·084	·064	·044	·024	·004	·984	·964	·944	·924	20	41
42	10·904	·883	·863	·842	·821	·801	·780	·759	·738	·718	21	42
43	·697	·676	·655	·634	·613	·592	·570	·549	·528	·507	21	43
44	·486	·464	·443	·421	·400	·378	·356	·335	·313	·292	22	44
45	·270	·248	·226	·204	·182	·160	·137	·115	·093	·071	22	45
46	·049	·027	·004	·982	·959	·937	·914	·892	·869	·847	23	46
47	9·824	·801	·778	·755	·732	·709	·686	·663	·640	·617	23	47
48	·594	·571	·547	·524	·500	·477	·454	·430	·407	·383	23	48
49	·360	·336	·312	·289	·265	·241	·217	·193	·170	·146	24	49
50	·122	·098	·074	·050	·026	·002	·977	·953	·929	·905	24	50
51	8·881	·857	·832	·808	·783	·759	·735	·710	·686	·661	24	51
52	·637	·612	·588	·563	·538	·514	·489	·464	·439	·415	25	52
53	·390	·365	·340	·315	·290	·265	·240	·215	·190	·165	25	53
54	·140	·115	·090	·064	·039	·014	·989	·964	·938	·913	25	54
55	7·888	·863	·837	·812	·787	·762	·736	·711	·686	·660	25	55
56	·635	·610	·584	·559	·533	·508	·482	·457	·431	·406	26	56
57	·380	·354	·329	·303	·278	·252	·226	·201	·175	·150	26	57
58	·124	·098	·073	·047	·022	·996	·970	·945	·919	·894	26	58
59	6·868	·842	·817	·791	·766	·740	·714	·689	·663	·638	26	59
60	·612	·587	·561	·536	·510	·485	·459	·434	·408	·383	26	60
61	·357	·332	·306	·281	·255	·230	·205	·179	·154	·128	25	61
62	·103	·078	·052	·027	·001	·976	·951	·925	·900	·874	25	62
63	5·849	·824	·799	·774	·749	·724	·698	·673	·648	·623	25	63
64	·598	·573	·548	·523	·498	·474	·449	·424	·399	·374	25	64

TWO MALES.

ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE.

5 PER CENT. **5 PER CENT.**

x	After Five Years from Purchase $a_{x,x}$										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
65	5·349	·325	·300	·276	·251	·227	·202	·178	·153	·129	25	65
66	·104	·080	·055	·031	·007	·983	·958	·934	·910	·885	24	66
67	4·861	·837	·813	·790	·766	·742	·718	·694	·671	·647	24	67
68	·623	·600	·576	·553	·529	·506	·482	·459	·435	·412	24	68
69	·388	·365	·342	·319	·296	·274	·251	·228	·205	·182	23	69
70	·159	·137	·114	·092	·069	·047	·024	·002	·979	·957	23	70
71	3·934	·912	·890	·868	·846	·825	·803	·781	·759	·737	22	71
72	·715	·694	·672	·651	·629	·608	·587	·565	·544	·522	21	72
73	·501	·480	·460	·439	·418	·398	·377	·356	·335	·315	21	73
74	·294	·274	·254	·233	·213	·193	·173	·153	·132	·112	20	74
75	·092	·073	·053	·034	·014	·995	·976	·956	·937	·917	19	75
76	2·898	·879	·860	·841	·822	·804	·785	·766	·747	·728	19	76
77	·709	·691	·673	·655	·637	·619	·600	·582	·564	·546	18	77
78	·528	·511	·493	·476	·458	·441	·424	·406	·389	·371	17	78
79	·354	·337	·321	·304	·287	·271	·254	·237	·220	·204	17	79
80	·187	·171	·155	·139	·123	·107	·091	·075	·059	·043	16	80
81	·027	·012	·996	·981	·966	·951	·935	·920	·905	·889	15	81
82	1·874	·860	·845	·831	·816	·802	·787	·773	·758	·744	15	82
83	·729	·715	·701	·687	·673	·660	·646	·632	·618	·604	14	83
84	·590	·577	·564	·551	·538	·525	·511	·498	·485	·472	13	84
85	·459	·447	·434	·422	·409	·397	·385	·372	·360	·347	12	85
86	·335	·323	·312	·300	·288	·277	·265	·253	·241	·230	12	86
87	·218	·207	·196	·185	·174	·163	·151	·140	·129	·118	11	87
88	·107	·097	·086	·076	·065	·055	·045	·034	·024	·013	10	88
89	·003	·993	·984	·974	·964	·955	·945	·935	·925	·916	10	89
90	0·906	·897	·888	·879	·870	·861	·851	·842	·833	·824	9	90
91	·815	·807	·798	·790	·781	·773	·764	·756	·747	·739	9	91
92	·730	·722	·714	·706	·698	·691	·683	·675	·667	·659	8	92
93	·651	·644	·636	·629	·622	·615	·607	·600	·593	·585	7	93
94	·578	·571	·564	·558	·551	·544	·537	·530	·524	·517	7	94
95	·510	·504	·498	·491	·485	·479	·473	·467	·460	·454	6	95
96	·448	·442	·437	·431	·425	·420	·414	·408	·402	·397	6	96
97	·391	·386	·381	·375	·370	·365	·360	·355	·349	·344	5	97
98	·339	·334	·330	·325	·320	·316	·311	·306	·301	·297	5	98
99	·292	·288	·283	·279	·275	·271	·266	·262	·258	·253	4	99
100	·249	·245	·241	·237	·233	·230	·226	·222	·218	·214	4	100
101	·210	·206	·203	·199	·196	·192	·188	·185	·181	·178	4	101
102	·174	·170	·165	·161	·156	·152	·148	·143	·139	·134	4	102
103	·130	...	...	...	...	...	...	...	...	...	...	103

TWO FEMALES.

SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE.

4 PER CENT. 4 PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
20	16·540	·527	·515	·502	·490	·477	·464	·452	·439	·427	13	20
21	·414	·401	·388	·374	·361	·348	·335	·322	·308	·295	13	21
22	·282	·268	·255	·241	·228	·214	·200	·187	·173	·160	14	22
23	·146	·132	·117	·103	·089	·075	·060	·046	·032	·017	14	23
24	·003	**·988**	**·974**	**·959**	**·944**	**·930**	**·915**	**·900**	**·885**	**·871**	15	24
25	15·856	·841	·826	·810	·795	·780	·765	·750	·734	·719	15	25
26	·704	·688	·673	·657	·641	·626	·610	·594	·578	·563	16	26
27	·547	·531	·515	·498	·482	·466	·450	·434	·417	·401	16	27
28	·385	·369	·352	·336	·319	·303	·286	·270	·253	·237	17	28
29	·220	·203	·186	·169	·152	·135	·118	·101	·084	·067	17	29
30	·050	·033	·015	**·998**	**·980**	**·963**	**·945**	**·928**	**·910**	**·893**	18	30
31	14·875	·857	·840	·822	·804	·787	·769	·751	·733	·716	18	31
32	·698	·680	·662	·644	·626	·608	·589	·571	·553	·535	18	32
33	·517	·499	·480	·462	·443	·425	·407	·388	·370	·351	18	33
34	·333	·314	·296	·277	·259	·240	·221	·203	·184	·166	19	34
35	·147	·128	·109	·090	·071	·053	·034	·015	**·996**	**·977**	19	35
36	13·958	·939	·920	·900	·881	·862	·843	·824	·804	·785	19	36
37	·766	·747	·727	·708	·689	·670	·650	·631	·612	·592	19	37
38	·573	·554	·534	·515	·495	·476	·456	·437	·417	·398	20	38
39	·378	·358	·338	·319	·299	·279	·259	·239	·220	·200	20	39
40	·180	·160	·141	·121	·101	·082	·062	·042	·022	·003	20	40
41	12·983	·963	·943	·923	·903	·883	·863	·843	·823	·803	20	41
42	·783	·763	·743	·723	·703	·683	·663	·643	·623	·603	20	42
43	·583	·563	·542	·522	·502	·482	·461	·441	·421	·400	20	43
44	·380	·360	·339	·319	·298	·278	·258	·237	·217	·196	20	44
45	·176	·156	·135	·115	·094	·074	·053	·033	·012	**·992**	21	45
46	11·971	·950	·929	·909	·888	·867	·846	·825	·805	·784	21	46
47	·763	·742	·721	·700	·679	·658	·637	·616	·595	·574	21	47
48	·553	·532	·510	·489	·468	·447	·425	·404	·383	·361	21	48
49	·340	·318	·297	·275	·253	·232	·210	·188	·166	·145	22	49
50	·123	·101	·079	·057	·035	·013	**·991**	**·969**	**·947**	**·925**	22	50
51	10·903	·881	·858	·836	·813	·791	·768	·746	·723	·701	23	51
52	·678	·655	·632	·609	·586	·563	·539	·516	·493	·470	23	52
53	·447	·423	·400	·376	·352	·329	·305	·281	·257	·234	24	53
54	·210	·186	·161	·137	·113	·089	·064	·040	·016	**·991**	24	54
55	9·967	·942	·917	·891	·866	·841	·816	·791	·765	·740	25	55
56	·715	·689	·663	·638	·612	·586	·560	·534	·509	·483	26	56
57	·457	·430	·404	·377	·350	·324	·297	·270	·243	·217	27	57
58	·190	·162	·135	·107	·080	·052	·024	**·997**	**·969**	**·942**	28	58
59	8·914	·886	·858	·829	·801	·773	·745	·717	·688	·660	28	59

TWO FEMALES.

4 PER CENT. SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 4 PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
60	8·632	·603	·574	·545	·516	·487	·457	·428	·399	·370	29	60
61	·341	·311	·282	·252	·222	·193	·163	·133	·103	·074	30	61
62	·044	·014	·984	·953	·923	·893	·863	·833	·802	·772	30	62
63	7·742	·711	·681	·650	·620	·589	·558	·528	·497	·467	31	63
64	·436	·405	·374	·343	·312	·282	·251	·220	·189	·158	31	64
65	·127	·096	·065	·034	·003	·972	·941	·910	·879	·848	31	65
66	6·817	·786	·755	·724	·693	·662	·631	·600	·569	·538	31	66
67	·507	·476	·446	·415	·385	·354	·323	·293	·262	·232	31	67
68	·201	·171	·140	·110	·080	·050	·019	·989	·959	·928	30	68
69	5·898	·868	·839	·809	·779	·750	·720	·690	·660	·631	30	69
70	·601	·572	·543	·514	·485	·456	·426	·397	·368	·339	29	70
71	·310	·282	·253	·225	·197	·169	·140	·112	·084	·055	29	71
72	·027	·000	·972	·945	·917	·890	·862	·835	·807	·780	28	72
73	4·752	·725	·699	·672	·646	·619	·592	·566	·539	·513	27	73
74	·486	·460	·435	·409	·384	·358	·332	·307	·281	·256	26	74
75	·230	·205	·180	·156	·131	·106	·081	·056	·032	·007	25	75
76	3·982	·958	·935	·911	·887	·864	·840	·816	·792	·769	24	76
77	·745	·722	·700	·677	·654	·632	·609	·586	·563	·541	23	77
78	·518	·496	·474	·453	·431	·409	·387	·365	·344	·322	22	78
79	·300	·279	·258	·237	·216	·196	·175	·154	·133	·112	21	79
80	·091	·071	·051	·032	·012	·992	·972	·952	·933	·913	20	80
81	2·893	·874	·855	·836	·817	·798	·778	·759	·740	·721	19	81
82	·702	·684	·666	·648	·630	·612	·594	·576	·558	·540	18	82
83	·522	·505	·487	·470	·453	·436	·418	·401	·384	·366	17	83
84	·349	·333	·316	·300	·283	·267	·251	·234	·218	·201	16	84
85	·185	·170	·154	·139	·123	·108	·092	·077	·061	·046	16	85
86	·030	·015	·000	·986	·971	·956	·941	·926	·912	·897	15	86
87	1·882	·868	·854	·840	·826	·812	·797	·783	·769	·755	14	87
88	·741	·728	·715	·701	·688	·675	·662	·649	·635	·622	13	88
89	·609	·596	·584	·571	·558	·546	·533	·520	·507	·495	13	89
90	·482	·470	·458	·447	·435	·423	·411	·399	·388	·376	12	90
91	·364	·353	·342	·330	·319	·308	·297	·286	·274	·263	11	91
92	·252	·241	·231	·220	·210	·199	·188	·178	·167	·157	11	92
93	·146	·136	·126	·116	·106	·097	·087	·077	·067	·057	10	93
94	·047	·038	·028	·019	·009	·000	·990	·981	·971	·962	10	94
95	0·952	·944	·935	·927	·918	·910	·901	·893	·884	·876	9	95
96	·867	·859	·850	·842	·833	·825	·817	·808	·800	·791	8	96
97	·783	·776	·768	·761	·753	·746	·739	·731	·724	·716	7	97
98	·709	·702	·694	·687	·680	·673	·665	·658	·651	·643	7	98
99	·636	...	...	...	...	...	...	...	...	...	...	99

TWO FEMALES.

4 PER CENT. — ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. — 4 PER CENT.

x	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
	After Five Years from Purchase a_{xx}											
25	15·553	·538	·522	·507	·491	·476	·460	·445	·429	·414	16	25
26	·398	·382	·366	·350	·334	·318	·301	·285	·269	·253	16	26
27	·237	·221	·204	·188	·171	·155	·138	·122	·105	·089	17	27
28	·072	·055	·038	·021	·004	·987	·970	·953	·936	·919	17	28
29	14·902	·885	·867	·850	·832	·815	·797	·780	·762	·745	18	29
30	·727	·709	·691	·673	·655	·638	·620	·602	·584	·566	18	30
31	·548	·530	·512	·493	·475	·457	·439	·421	·402	·384	18	31
32	·366	·347	·329	·310	·292	·273	·254	·236	·217	·199	19	32
33	·180	·161	·142	·123	·104	·085	·066	·047	·028	·009	19	33
34	13·990	·971	·952	·932	·913	·894	·875	·856	·836	·817	19	34
35	·798	·779	·759	·740	·720	·701	·681	·662	·642	·623	20	35
36	·603	·583	·563	·544	·524	·504	·484	·464	·445	·425	20	36
37	·405	·385	·365	·345	·325	·306	·286	·266	·246	·226	20	37
38	·206	·186	·166	·145	·125	·105	·085	·065	·044	·024	20	38
39	·004	·984	·963	·943	·923	·903	·882	·862	·842	·821	20	39
40	12·801	·781	·760	·740	·719	·699	·678	·658	·637	·617	21	40
41	·596	·575	·555	·534	·514	·493	·472	·452	·431	·411	21	41
42	·390	·369	·348	·328	·307	·286	·265	·244	·224	·203	21	42
43	·182	·161	·140	·119	·098	·078	·057	·036	·015	·994	21	43
44	11·973	·952	·931	·910	·889	·868	·847	·826	·805	·784	21	44
45	·763	·742	·721	·699	·678	·657	·636	·615	·593	·572	21	45
46	·551	·530	·508	·487	·466	·445	·423	·402	·381	·359	21	46
47	·338	·316	·295	·273	·252	·230	·208	·187	·165	·144	22	47
48	·122	·100	·078	·057	·035	·013	·991	·969	·948	·926	22	48
49	10·904	·882	·860	·838	·816	·794	·772	·750	·728	·706	22	49
50	·684	·662	·639	·617	·594	·572	·550	·527	·505	·482	22	50
51	·460	·437	·414	·392	·369	·346	·323	·300	·278	·255	23	51
52	·232	·209	·185	·162	·139	·116	·092	·069	·046	·022	23	52
53	9·999	·975	·951	·928	·904	·880	·856	·832	·809	·785	24	53
54	·761	·737	·712	·688	·663	·639	·615	·590	·566	·541	24	54
55	·517	·492	·467	·442	·417	·392	·366	·341	·316	·291	25	55
56	·266	·240	·214	·189	·163	·137	·111	·085	·060	·034	26	56
57	·008	·981	·955	·928	·902	·875	·848	·822	·795	·769	27	57
58	8·742	·715	·687	·660	·633	·606	·578	·551	·524	·496	27	58
59	·469	·441	·413	·385	·357	·329	·300	·272	·244	·216	28	59
60	·188	·159	·130	·101	·072	·044	·015	·986	·957	·928	29	60
61	7·899	·870	·840	·811	·781	·752	·722	·693	·663	·634	30	61
62	·604	·574	·544	·514	·484	·454	·423	·393	·363	·333	30	62
63	·303	·272	·242	·211	·181	·150	·119	·089	·058	·028	31	63
64	6·997	·966	·935	·904	·873	·843	·812	·781	·750	·719	31	64

TWO FEMALES.

4 PER CENT. | ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. | 4 PER CENT.

x	After Five Years from Purchase a_{xx} ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
65	6·688	·657	·626	·595	·564	·533	·501	·470	·439	·408	31	65
66	·377	·346	·315	·284	·253	·222	·190	·159	·128	·097	31	66
67	·066	·035	·004	·973	·942	·911	·880	·849	·818	·787	31	67
68	5·756	·726	·695	·665	·634	·604	·573	·543	·512	·482	31	68
69	·451	·421	·391	·361	·331	·301	·270	·240	·210	·180	30	69
70	·150	·121	·091	·062	·032	·003	·973	·944	·914	·885	30	70
71	4·855	·826	·798	·769	·740	·712	·683	·654	·625	·597	29	71
72	·568	·540	·512	·484	·456	·429	·401	·373	·345	·317	28	72
73	·289	·262	·235	·208	·181	·154	·127	·100	·073	·046	27	73
74	·019	·993	·967	·941	·915	·890	·864	·838	·812	·786	26	74
75	3·760	·735	·710	·685	·660	·635	·610	·585	·560	·535	25	75
76	·510	·486	·462	·438	·414	·391	·367	·343	·319	·295	24	76
77	·271	·248	·225	·202	·179	·157	·134	·111	·088	·065	23	77
78	·042	·020	·998	·976	·954	·933	·911	·889	·867	·845	22	78
79	2·823	·802	·782	·761	·740	·720	·699	·678	·657	·637	21	79
80	·616	·596	·576	·557	·537	·517	·497	·477	·458	·438	20	80
81	·418	·399	·381	·362	·343	·325	·306	·287	·268	·250	19	81
82	·231	·213	·196	·178	·160	·143	·125	·107	·089	·072	18	82
83	·054	·037	·020	·004	·987	·970	·953	·936	·920	·903	17	83
84	1·886	·870	·854	·839	·823	·807	·791	·775	·760	·744	16	84
85	·728	·713	·698	·684	·669	·654	·639	·624	·610	·595	15	85
86	·580	·566	·552	·538	·524	·510	·496	·482	·468	·454	14	86
87	·440	·427	·414	·401	·388	·375	·361	·348	·335	·322	13	87
88	·309	·297	·284	·272	·260	·248	·235	·223	·211	·198	12	88
89	·186	·175	·163	·152	·140	·129	·117	·106	·094	·083	12	89
90	·071	·060	·050	·039	·029	·018	·007	·997	·986	·976	11	90
91	0·965	·955	·945	·935	·925	·915	·905	·895	·885	·875	10	91
92	·865	·856	·847	·837	·828	·819	·810	·801	·791	·782	9	92
93	·773	·765	·756	·748	·739	·731	·722	·714	·705	·697	9	93
94	·688	·680	·672	·664	·656	·649	·641	·633	·625	·617	8	94
95	·609	·602	·594	·587	·580	·573	·565	·558	·551	·543	7	95
96	·536	·529	·522	·516	·509	·502	·495	·488	·482	·475	7	96
97	·468	·463	·457	·452	·446	·441	·435	·430	·424	·419	6	97
98	·413	·407	·401	·394	·388	·382	·376	·370	·363	·357	6	98
99	·351	·348	·344	·341	·337	·334	·330	·327	·323	·320	4	99
100	·316	·311	·306	·300	·295	·290	·285	·280	·274	·269	5	100
101	·264	·257	·250	·243	·236	·229	·221	·214	·207	·200	7	101
102	·193	·189	·185	·181	·177	·174	·170	·166	·162	·158	4	102
103	·154	...	...	...	...	...	...	...	...	...	...	103

TWO FEMALES.

5 PER CENT. SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 5 PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
20	14·463	·454	·445	·435	·426	·417	·408	·399	·389	·380	9	20
21	·371	·361	·352	·342	·333	·323	·313	·304	·294	·285	10	21
22	·275	·265	·255	·245	·235	·225	·215	·205	·195	·185	10	22
23	·175	·164	·154	·143	·133	·122	·111	·101	·090	·080	11	23
24	·069	·058	·047	·036	·025	·014	·003	·992	·981	·970	11	24
25	13·959	·948	·936	·925	·913	·902	·891	·879	·868	·856	11	25
26	·845	·833	·821	·809	·797	·786	·774	·762	·750	·738	12	26
27	·726	·714	·701	·689	·677	·665	·652	·640	·628	·615	12	27
28	·603	·590	·578	·565	·553	·540	·527	·515	·502	·490	13	28
29	·477	·464	·451	·438	·425	·412	·399	·386	·373	·360	13	29
30	·347	·334	·320	·307	·293	·280	·266	·253	·239	·226	14	30
31	·212	·198	·184	·171	·157	·143	·129	·115	·102	·088	14	31
32	·074	·060	·046	·032	·018	·004	·989	·975	·961	·947	14	32
33	12·933	·919	·904	·890	·875	·861	·847	·832	·818	·803	14	33
34	·789	·774	·760	·745	·731	·716	·701	·687	·672	·658	15	34
35	·643	·628	·613	·598	·583	·568	·553	·538	·523	·508	15	35
36	·493	·478	·463	·448	·433	·418	·402	·387	·372	·357	15	36
37	·342	·327	·311	·296	·280	·265	·250	·234	·219	·203	15	37
38	·188	·172	·157	·141	·126	·110	·094	·079	·063	·048	16	38
39	·032	·016	·000	·985	·969	·953	·937	·921	·906	·890	16	39
40	11·874	·858	·842	·827	·811	·795	·779	·763	·748	·732	16	40
41	·716	·700	·684	·668	·652	·636	·619	·603	·587	·571	16	41
42	·555	·539	·523	·506	·490	·474	·458	·442	·425	·409	16	42
43	·393	·377	·360	·344	·327	·311	·294	·278	·261	·245	17	43
44	·228	·212	·195	·179	·162	·146	·129	·113	·096	·080	17	44
45	·063	·046	·029	·013	·996	·979	·962	·945	·929	·912	17	45
46	10·895	·878	·861	·844	·827	·810	·793	·776	·759	·742	17	46
47	·725	·708	·691	·673	·656	·639	·622	·605	·587	·570	17	47
48	·553	·535	·518	·500	·483	·465	·447	·430	·412	·395	18	48
49	·377	·359	·341	·323	·305	·287	·269	·251	·233	·215	18	49
50	·197	·179	·161	·142	·124	·106	·088	·070	·051	·033	18	50
51	·015	·996	·977	·958	·939	·921	·902	·883	·864	·845	19	51
52	9·826	·807	·787	·768	·749	·730	·710	·691	·672	·652	19	52
53	·633	·613	·593	·573	·553	·533	·513	·493	·473	·453	20	53
54	·433	·412	·392	·371	·350	·330	·309	·288	·267	·247	21	54
55	·226	·205	·183	·162	·140	·119	·098	·076	·055	·033	21	55
56	·012	·990	·968	·945	·923	·901	·879	·857	·834	·812	22	56
57	8·790	·767	·744	·721	·698	·675	·651	·628	·605	·582	23	57
58	·559	·535	·511	·487	·463	·440	·416	·392	·368	·344	24	58
59	·320	·295	·271	·246	·221	·197	·172	·147	·122	·098	25	59

TWO FEMALES.

5 PER CENT. — SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. — 5 PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
60	8·073	·048	·022	·997	·971	·946	·920	·895	·869	·844	26	60
61	7·818	·792	·765	·739	·713	·687	·660	·634	·608	·581	26	61
62	·555	·528	·501	·475	·448	·421	·394	·367	·341	·314	27	62
63	·287	·260	·232	·205	·177	·150	·123	·095	·068	·040	27	63
64	·013	·985	·958	·930	·902	·875	·847	·819	·791	·764	28	64
65	6·736	·708	·680	·652	·624	·596	·568	·540	·512	·484	28	65
66	·456	·428	·400	·372	·344	·316	·288	·260	·232	·204	28	66
67	·176	·148	·120	·092	·064	·036	·008	·980	·952	·924	28	67
68	5·896	·868	·841	·813	·786	·758	·730	·703	·675	·648	28	68
69	·620	·593	·565	·538	·511	·484	·456	·429	·402	·374	27	69
70	·347	·320	·293	·267	·240	·213	·186	·159	·133	·106	27	70
71	·079	·053	·027	·000	·974	·948	·922	·896	·869	·843	26	71
72	4·817	·791	·766	·740	·715	·689	·663	·638	·612	·587	26	72
73	·561	·536	·512	·487	·462	·438	·413	·388	·363	·339	25	73
74	·314	·290	·266	·242	·218	·194	·170	·146	·122	·098	24	74
75	·074	·051	·028	·004	·981	·958	·935	·912	·888	·865	23	75
76	3·842	·820	·797	·775	·753	·731	·708	·686	·664	·641	22	76
77	·619	·598	·576	·555	·533	·512	·490	·469	·447	·426	22	77
78	·404	·383	·363	·342	·322	·301	·280	·260	·239	·219	21	78
79	·198	·178	·158	·139	·119	·099	·079	·059	·040	·020	20	79
80	·000	·981	·962	·943	·924	·906	·887	·868	·849	·830	19	80
81	2·811	·793	·775	·756	·738	·720	·702	·684	·665	·647	18	81
82	·629	·612	·595	·577	·560	·543	·526	·509	·491	·474	17	82
83	·457	·440	·424	·407	·391	·374	·357	·341	·324	·308	17	83
84	·291	·275	·260	·244	·228	·213	·197	·181	·165	·150	16	84
85	·134	·119	·104	·089	·074	·059	·044	·029	·014	·999	15	85
86	1·984	·970	·955	·941	·927	·913	·898	·884	·870	·855	14	86
87	·841	·827	·814	·800	·787	·773	·759	·746	·732	·719	14	87
88	·705	·692	·679	·667	·654	·641	·628	·615	·603	·590	13	88
89	·577	·565	·552	·540	·528	·516	·503	·491	·479	·466	12	89
90	·454	·443	·431	·420	·408	·397	·386	·374	·363	·351	11	90
91	·340	·329	·318	·307	·296	·285	·274	·263	·252	·241	11	91
92	·230	·220	·209	·199	·189	·179	·168	·158	·148	·137	10	92
93	·127	·117	·108	·098	·088	·079	·069	·059	·049	·040	10	93
94	·030	·021	·011	·002	·993	·984	·974	·965	·956	·946	9	94
95	0·937	·929	·920	·912	·904	·896	·887	·879	·871	·862	8	95
96	·854	·846	·838	·829	·821	·813	·805	·797	·788	·780	8	96
97	·772	·765	·757	·750	·743	·736	·728	·721	·714	·706	7	97
98	·699	·692	·685	·677	·670	·663	·656	·649	·641	·634	7	98
99	·627	...	...	...	...	...	...	...	...	...	...	99

TWO FEMALES.

5 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 5 PER CENT.

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
25	13·694	·682	·671	·659	·647	·636	·624	·612	·600	·589	12	25
26	·577	·565	·553	·540	·528	·516	·504	·492	·479	·467	12	26
27	·455	·442	·430	·417	·404	·392	·379	·366	·353	·341	13	27
28	·328	·315	·302	·289	·276	·263	·249	·236	·223	·210	13	28
29	·197	·184	·170	·157	·143	·130	·116	·103	·089	·076	14	29
30	·062	·048	·034	·021	·007	·993	·979	·965	·952	·938	14	30
31	12·924	·910	·895	·881	·867	·853	·838	·824	·810	·795	14	31
32	·781	·766	·752	·737	·723	·708	·693	·679	·664	·650	15	32
33	·635	·620	·605	·590	·575	·561	·546	·531	·516	·501	15	33
34	·486	·471	·455	·440	·425	·410	·394	·379	·364	·348	15	34
35	·333	·318	·302	·287	·271	·256	·240	·225	·209	·194	16	35
36	·178	·162	·146	·131	·115	·099	·083	·067	·052	·036	16	36
37	·020	·004	·988	·972	·956	·941	·925	·909	·893	·877	16	37
38	11·861	·845	·829	·812	·796	·780	·764	·748	·731	·715	16	38
39	·699	·683	·666	·650	·633	·617	·601	·584	·568	·551	16	39
40	·535	·518	·502	·485	·469	·452	·435	·419	·402	·386	17	40
41	·369	·352	·336	·319	·302	·286	·269	·252	·235	·219	17	41
42	·202	·185	·168	·151	·134	·118	·101	·084	·067	·050	17	42
43	·033	·016	·999	·982	·965	·948	·930	·913	·896	·879	17	43
44	10·862	·845	·828	·810	·793	·776	·759	·742	·724	·707	17	44
45	·690	·673	·655	·638	·620	·603	·586	·568	·551	·533	17	45
46	·516	·498	·481	·463	·446	·428	·410	·393	·375	·358	18	46
7	·340	·322	·304	·287	·269	·251	·233	·215	·198	·180	18	47
	·162	·144	·126	·108	·090	·072	·053	·035	·017	·999	18	48
	9·981	·963	·944	·926	·907	·889	·871	·852	·834	·815	18	49
	·797	·778	·760	·741	·722	·704	·685	·666	·647	·629	19	50
,1	·610	·591	·572	·553	·534	·515	·495	·476	·457	·438	19	51
52	·419	·399	·380	·360	·340	·321	·301	·281	·261	·242	20	52
53	·222	·202	·182	·161	·141	·121	·101	·081	·060	·040	20	53
54	·020	·999	·978	·958	·937	·916	·895	·874	·854	·833	21	54
55	8·812	·791	·769	·748	·726	·705	·683	·662	·640	·619	22	55
56	·597	·575	·553	·530	·508	·486	·464	·442	·419	·397	22	56
57	·375	·352	·329	·306	·283	·260	·236	·213	·190	·167	23	57
58	·144	·120	·096	·073	·049	·025	·001	·977	·954	·930	24	58
59	7·906	·881	·857	·832	·808	·783	·758	·734	·709	·685	25	59
60	·660	·635	·609	·584	·558	·533	·508	·482	·457	·431	25	60
61	·406	·380	·354	·327	·301	·275	·249	·223	·196	·170	26	61
62	·144	·117	·090	·064	·037	·010	·983	·956	·930	·903	27	62
63	6·876	·849	·821	·794	·766	·739	·712	·684	·657	·629	27	63
64	·602	·574	·546	·518	·490	·463	·435	·407	·379	·351	28	64

TWO FEMALES.

5 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 5 PER CENT

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
65	6·323	·295	·267	·239	·211	·183	·154	·126	·098	·070	28	65
66	·042	·014	·985	·957	·929	·901	·872	·844	·816	·787	28	66
67	5·759	·731	·702	·674	·646	·618	·589	·561	·533	·504	28	67
68	·476	·448	·420	·392	·364	·336	·308	·280	·252	·224	28	68
69	·196	·168	·141	·113	·085	·058	·030	·002	·974	·947	28	69
70	4·919	·892	·864	·837	·810	·783	·755	·728	·701	·673	27	70
71	·646	·619	·593	·566	·539	·513	·486	·459	·432	·406	27	71
72	·379	·353	·327	·301	·275	·250	·224	·198	·172	·146	26	72
73	·120	·095	·069	·044	·019	·994	·968	·943	·918	·892	25	73
74	3·867	·843	·818	·794	·769	·745	·721	·696	·672	·647	24	74
75	·623	·600	·576	·553	·529	·506	·482	·459	·435	·412	24	75
76	·388	·366	·343	·321	·298	·276	·253	·231	·208	·186	23	76
77	·163	·141	·120	·098	·076	·055	·033	·011	·989	·968	22	77
78	2·946	·925	·905	·884	·863	·843	·822	·801	·780	·760	21	78
79	·739	·719	·699	·680	·660	·640	·620	·600	·581	·561	20	79
80	·541	·522	·503	·484	·465	·447	·428	·409	·390	·371	19	80
81	·352	·334	·316	·298	·280	·263	·245	·227	·209	·191	18	81
82	·173	·156	·139	·122	·105	·088	·071	·054	·037	·020	17	82
83	·003	·987	·971	·955	·939	·923	·906	·890	·874	·858	16	83
84	1·842	·827	·811	·796	·781	·766	·750	·735	·720	·704	15	84
85	·689	·675	·660	·646	·632	·618	·603	·589	·575	·560	14	85
86	·546	·532	·519	·505	·492	·478	·464	·451	·437	·424	14	86
87	·410	·397	·385	·372	·359	·347	·334	·321	·308	·296	13	87
88	·283	·271	·259	·247	·235	·224	·212	·200	·188	·176	12	88
89	·164	·153	·142	·130	·119	·108	·097	·086	·074	·063	11	89
90	·052	·042	·031	·021	·011	·001	·990	·980	·970	·959	10	90
91	0·949	·939	·929	·920	·910	·900	·890	·880	·871	·861	10	91
92	·851	·842	·833	·824	·815	·806	·797	·788	·779	·770	9	92
93	·761	·753	·744	·736	·728	·720	·711	·703	·695	·686	8	93
94	·678	·670	·663	·655	·647	·640	·632	·624	·616	·609	8	94
95	·601	·594	·587	·579	·572	·565	·558	·551	·543	·536	7	95
96	·529	·522	·516	·509	·502	·496	·489	·482	·475	·469	7	96
97	·462	·457	·451	·446	·440	·435	·430	·424	·419	·413	5	97
98	·408	·402	·396	·390	·384	·378	·371	·365	·359	·353	6	98
99	·347	·344	·340	·337	·333	·330	·327	·323	·320	·316	3	99
100	·313	·308	·303	·297	·292	·287	·282	·277	·271	·266	5	100
101	·261	·254	·247	·240	·233	·226	·219	·212	·205	·198	7	101
102	·191	·187	·183	·179	·175	·172	·168	·164	·160	·156	4	102
103	·152	...	...	...	...	...	...	...	...	...	...	103

MALE AND FEMALE.

SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE.

4 PER CENT. 4 PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
20	16·482	·469	·456	·443	·430	·417	·404	·391	·378	·365	13	20
21	·352	·339	·325	·312	·298	·285	·272	·258	·245	·231	13	21
22	·218	·204	·190	·176	·162	·149	·135	·121	·107	·093	14	22
23	·079	·065	·050	·036	·021	·007	·992	·978	·963	·949	15	23
24	15·934	·919	·904	·889	·874	·859	·844	·829	·814	·799	15	24
25	·784	·769	·753	·738	·722	·707	·691	·676	·660	·645	16	25
26	·629	·613	·597	·581	·565	·549	·533	·517	·501	·485	16	26
27	·469	·452	·436	·419	·403	·386	·369	·353	·336	·320	17	27
28	·303	·286	·269	·253	·236	·219	·202	·185	·169	·152	17	28
29	·135	·118	·100	·083	·065	·048	·030	·013	·995	·978	18	29
30	14·960	·942	·924	·906	·888	·870	·852	·834	·816	·798	18	30
31	·780	·762	·743	·725	·706	·688	·670	·651	·633	·614	18	31
32	·596	·577	·558	·539	·520	·502	·483	·464	·445	·426	19	32
33	·407	·388	·368	·349	·329	·310	·291	·271	·252	·232	19	33
34	·213	·193	·174	·154	·135	·115	·095	·076	·056	·037	20	34
35	·017	·997	·977	·957	·937	·917	·896	·876	·856	·836	20	35
36	13·816	·795	·775	·754	·734	·713	·692	·672	·651	·631	21	36
37	·610	·589	·568	·547	·526	·506	·485	·464	·443	·422	21	37
38	·401	·380	·358	·337	·316	·295	·273	·252	·231	·209	21	38
39	·188	·166	·145	·123	·102	·080	·058	·037	·015	·994	22	39
40	12·972	·950	·928	·906	·884	·863	·841	·819	·797	·775	22	40
41	·753	·731	·708	·686	·664	·642	·619	·597	·575	·552	22	41
42	·530	·507	·485	·462	·440	·417	·394	·372	·349	·327	23	42
43	·304	·281	·258	·235	·212	·190	·167	·144	·121	·098	23	43
44	·075	·052	·029	·005	·982	·959	·936	·913	·889	·866	23	44
45	11·843	·820	·796	·773	·749	·726	·702	·679	·655	·632	24	45
46	·608	·584	·560	·536	·512	·489	·465	·441	·417	·393	24	46
47	·369	·345	·321	·297	·273	·249	·225	·201	·177	·153	24	47
48	·129	·105	·080	·056	·031	·007	·982	·958	·933	·909	25	48
49	10·884	·859	·834	·810	·785	·760	·735	·710	·686	·661	25	49
50	·636	·611	·586	·561	·536	·511	·486	·461	·436	·411	25	50
51	·386	·361	·335	·310	·284	·259	·233	·208	·182	·157	26	51
52	·131	·105	·080	·054	·028	·003	·977	·951	·925	·900	26	52
53	9·874	·848	·822	·795	·769	·743	·717	·691	·664	·638	26	53
54	·612	·586	·559	·533	·506	·480	·453	·427	·400	·374	27	54
55	·347	·320	·293	·266	·239	·213	·186	·159	·132	·105	27	55
56	·078	·051	·023	·996	·969	·942	·914	·887	·860	·832	27	56
57	8·805	·777	·750	·722	·695	·667	·639	·612	·584	·557	28	57
58	·529	·501	·473	·445	·417	·390	·362	·334	·306	·278	28	58
59	·250	·222	·194	·166	·138	·110	·081	·053	·025	·997	28	59

MALE AND FEMALE.

4 PER CENT. SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 4 PER CENT.

x	At Date of Purchase $a_{[xx]}$										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
60	7·969	·941	·912	·884	·855	·827	·798	·770	·741	·713	29	60
61	·684	·655	·627	·598	·570	·541	·512	·484	·455	·427	29	61
62	·398	·369	·341	·312	·284	·255	·226	·198	·169	·141	29	62
63	·112	·083	·055	·026	**·997**	**·969**	**·940**	**·911**	**·882**	**·854**	29	63
64	6·825	·796	·768	·739	·711	·682	·653	·625	·596	·568	29	64
65	·539	·511	·482	·454	·425	·397	·369	·340	·312	·283	28	65
66	·255	·227	·199	·171	·143	·115	·086	·058	·030	·002	28	66
67	5·974	·946	·919	·891	·863	·836	·808	·780	·752	·725	28	67
68	·697	·670	·642	·615	·588	·561	·533	·506	·479	·451	27	68
69	·424	·397	·370	·344	·317	·290	·263	·236	·210	·183	27	69
70	·156	·130	·104	·078	·052	·026	**·999**	**·973**	**·947**	**·921**	26	70
71	4·895	·870	·844	·819	·793	·768	·743	·717	·692	·666	25	71
72	·641	·616	·591	·567	·542	·517	·492	·467	·443	·418	25	72
73	·393	·369	·345	·321	·297	·274	·250	·226	·202	·178	24	73
74	·154	·131	·108	·084	·061	·038	·015	**·992**	**·968**	**·945**	23	74
75	3·922	·900	·877	·855	·832	·810	·788	·765	·743	·720	22	75
76	·698	·677	·655	·634	·612	·591	·569	·548	·526	·505	22	76
77	·483	·462	·441	·421	·400	·379	·358	·337	·317	·296	21	77
78	·275	·255	·235	·215	·195	·176	·156	·136	·116	·096	20	78
79	·076	·057	·038	·019	·000	**·981**	**·961**	**·942**	**·923**	**·904**	19	79
80	2·885	·867	·848	·830	·812	·794	·775	·757	·739	·720	18	80
81	·702	·684	·667	·649	·632	·614	·596	·579	·561	·544	18	81
82	·526	·509	·493	·476	·459	·443	·426	·409	·392	·376	17	82
83	·359	·343	·327	·311	·295	·280	·264	·248	·232	·216	16	83
84	·200	·185	·169	·154	·139	·124	·108	·093	·078	·062	15	84
85	·047	·033	·018	·004	**·989**	**·975**	**·960**	**·946**	**·931**	**·917**	15	85
86	1·902	·888	·874	·861	·847	·833	·819	·805	·792	·778	14	86
87	·764	·751	·738	·725	·712	·699	·685	·672	·659	·646	13	87
88	·633	·621	·608	·596	·583	·571	·559	·546	·534	·521	12	88
89	·509	·497	·485	·474	·462	·450	·438	·426	·415	·403	12	89
90	·391	·380	·369	·357	·346	·335	·324	·313	·301	·290	11	90
91	·279	·269	·258	·248	·237	·227	·216	·206	·195	·185	11	91
92	·174	·164	·154	·144	·134	·124	·114	·104	·094	·084	10	92
93	·074	·065	·055	·046	·036	·027	·018	·008	**·999**	**·989**	9	93
94	0·980	·971	·962	·953	·944	·936	·927	·918	·909	·900	9	94
95	·891	·883	·875	·866	·858	·850	·842	·834	·825	·817	8	95
96	·809	·801	·793	·785	·777	·770	·762	·754	·746	·738	8	96
97	·730	·723	·716	·708	·701	·694	·687	·680	·672	·665	7	97
98	·658	·651	·644	·638	·631	·624	·617	·610	·604	·597	7	98
99	·590	...	...	...	...	...	...	...	...	...	...	99

MALE AND FEMALE.

4 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 4 PER CENT.

x	After Five Years from Purchase a_{xx} ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
25	15·471	·456	·440	·425	·409	·394	·378	·363	·347	·332	16	25
26	·316	·300	·284	·267	·251	·235	·219	·203	·186	·170	16	26
27	·154	·137	·121	·104	·088	·071	·054	·038	·021	·005	17	27
28	14·988	·971	·954	·936	·919	·902	·885	·868	·850	·833	17	28
29	·816	·798	·781	·763	·745	·728	·710	·692	·674	·657	18	29
30	·639	·621	·603	·585	·567	·549	·530	·512	·494	·476	18	30
31	·458	·439	·421	·402	·384	·365	·346	·328	·309	·291	19	31
32	·272	·253	·234	·215	·196	·177	·157	·138	·119	·100	19	32
33	·081	·061	·042	·022	·002	·983	·963	·943	·923	·904	20	33
34	13·884	·864	·844	·824	·804	·785	·765	·745	·725	·705	20	34
35	·685	·665	·644	·624	·603	·583	·563	·542	·522	·501	20	35
36	·481	·460	·439	·418	·397	·377	·356	·335	·314	·293	21	36
37	·272	·251	·230	·208	·187	·166	·145	·124	·102	·081	21	37
38	·060	·038	·017	·995	·973	·952	·930	·908	·886	·865	22	38
39	12·843	·821	·799	·777	·755	·734	·712	·690	·668	·646	22	39
40	·624	·602	·579	·557	·535	·513	·490	·468	·446	·423	22	40
41	·401	·378	·356	·333	·310	·288	·265	·242	·219	·197	23	41
42	·174	·151	·128	·105	·082	·059	·036	·013	·990	·967	23	42
43	11·944	·921	·898	·874	·851	·828	·805	·782	·758	·735	23	43
44	·712	·688	·665	·641	·618	·594	·570	·547	·523	·500	24	44
45	·476	·452	·428	·404	·380	·357	·333	·309	·285	·261	24	45
46	·237	·213	·189	·164	·140	·116	·092	·068	·043	·019	24	46
47	10·995	·971	·946	·922	·897	·873	·848	·824	·799	·775	25	47
48	·750	·725	·700	·676	·651	·626	·601	·576	·552	·527	25	48
49	·502	·477	·452	·427	·402	·377	·351	·326	·301	·276	25	49
50	·251	·226	·200	·175	·149	·124	·099	·073	·048	·022	25	50
51	9·997	·971	·945	·920	·894	·868	·842	·816	·791	·765	26	51
52	·739	·713	·687	·661	·635	·609	·583	·557	·531	·505	26	52
53	·479	·453	·426	·400	·373	·347	·321	·294	·268	·241	26	53
54	·215	·188	·161	·135	·108	·081	·054	·027	·001	·974	27	54
55	8·947	·920	·893	·866	·839	·812	·784	·757	·730	·703	27	55
56	·676	·649	·621	·594	·566	·539	·511	·484	·456	·429	28	56
57	·401	·373	·345	·318	·290	·262	·234	·206	·179	·151	28	57
58	·123	·095	·067	·039	·011	·983	·954	·926	·898	·870	28	58
59	7·842	·814	·785	·757	·728	·700	·672	·643	·615	·586	28	59
60	·558	·529	·501	·472	·443	·415	·386	·357	·328	·300	29	60
61	·271	·242	·213	·185	·156	·127	·098	·069	·041	·012	29	61
62	6·983	·954	·925	·896	·867	·839	·810	·781	·752	·723	29	62
63	·694	·665	·636	·607	·578	·549	·520	·491	·462	·433	29	63
64	·404	·375	·346	·317	·288	·260	·231	·202	·173	·144	29	64

MALE AND FEMALE.

4 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 4 PER CENT.

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
65	6·115	·086	·057	·029	·000	·971	·942	·913	·885	·856	29	65
66	5·827	·799	·770	·742	·713	·685	·656	·628	·599	·571	29	66
67	·542	·514	·486	·458	·430	·402	·373	·345	·317	·289	28	67
68	·261	·233	·206	·178	·150	·123	·095	·067	·039	·012	28	68
69	4·984	·957	·930	·902	·875	·848	·821	·794	·766	·739	27	69
70	·712	·686	·659	·633	·606	·580	·553	·527	·500	·474	27	70
71	·447	·421	·395	·369	·343	·318	·292	·266	·240	·214	26	71
72	·188	·163	·138	·113	·088	·063	·037	·012	·987	·962	25	72
73	3·937	·913	·888	·864	·840	·816	·791	·767	·743	·718	24	73
74	·694	·671	·647	·624	·600	·577	·554	·530	·507	·483	23	74
75	·460	·437	·415	·392	·370	·347	·324	·302	·279	·257	23	75
76	·234	·212	·191	·169	·147	·126	·104	·082	·060	·039	22	76
77	·017	·996	·975	·955	·934	·913	·892	·871	·851	·830	21	77
78	2·809	·789	·769	·749	·729	·710	·690	·670	·650	·630	20	78
79	·610	·591	·572	·553	·534	·515	·496	·477	·458	·439	19	79
80	·420	·402	·384	·366	·348	·330	·311	·293	·275	·257	18	80
81	·239	·222	·204	·187	·170	·153	·135	·118	·101	·083	17	81
82	·066	·050	·033	·017	·001	·985	·968	·952	·936	·919	16	82
83	1·903	·888	·872	·857	·841	·826	·811	·795	·780	·764	15	83
84	·749	·734	·720	·705	·691	·676	·661	·647	·632	·618	15	84
85	·603	·589	·575	·562	·548	·534	·520	·506	·493	·479	14	85
86	·465	·452	·439	·426	·413	·400	·387	·374	·361	·348	13	86
87	·335	·323	·311	·298	·286	·274	·262	·250	·237	·225	12	87
88	·213	·202	·190	·179	·167	·156	·145	·133	·122	·110	11	88
89	·099	·088	·078	·067	·056	·046	·035	·024	·013	·003	11	89
90	0·992	·982	·972	·962	·952	·943	·933	·923	·913	·903	10	90
91	·893	·884	·874	·865	·856	·847	·837	·828	·819	·809	9	91
92	·800	·791	·783	·774	·766	·757	·748	·740	·731	·723	9	92
93	·714	·706	·698	·690	·682	·674	·666	·658	·650	·642	8	93
94	·634	·627	·619	·612	·605	·598	·590	·583	·576	·568	7	94
95	·561	·554	·547	·541	·534	·527	·520	·513	·507	·500	7	95
96	·493	·487	·480	·474	·468	·462	·455	·449	·443	·436	6	96
97	·430	·425	·419	·414	·408	·403	·398	·392	·387	·381	5	97
98	·376	·371	·365	·360	·354	·349	·344	·338	·333	·327	5	98
99	·322	·318	·314	·310	·306	·302	·298	·294	·290	·286	4	99
100	·282	·278	·273	·269	·264	·260	·255	·251	·246	·242	5	100
101	·237	·232	·226	·221	·216	·211	·205	·200	·195	·189	5	101
102	·184	·180	·176	·171	·167	·163	·159	·155	·150	·146	4	102
103	·142	...	...	...	...	...	...	...	...	...	...	103

MALE AND FEMALE.

SELECT VALUES OF ANNUITIES

ON TWO JOINT LIVES OF EQUAL AGE.

5 PER CENT. 5 PER CENT.

x	At Date of Purchase $a_{[x,x]}$										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
20	14·428	·419	·409	·400	·390	·381	·372	·362	·353	·343	9	20
21	·334	·324	·314	·305	·295	·285	·275	·265	·256	·246	10	21
22	·236	·226	·216	·205	·195	·185	·175	·165	·154	·144	10	22
23	·134	·123	·113	·102	·091	·081	·070	·059	·048	·038	11	23
24	·027	·016	·005	·993	·982	·971	·960	·949	·937	·926	11	24
25	13·915	·903	·892	·880	·869	·857	·845	·834	·822	·811	12	25
26	·799	·787	·775	·763	·751	·739	·726	·714	·702	·690	12	26
27	·678	·666	·653	·641	·628	·616	·603	·591	·578	·566	13	27
28	·553	·540	·527	·514	·501	·488	·475	·462	·449	·436	13	28
29	·423	·410	·396	·383	·369	·356	·343	·329	·316	·302	13	29
30	·289	·275	·261	·248	·234	·220	·206	·192	·179	·165	14	30
31	·151	·137	·122	·108	·093	·079	·065	·050	·036	·021	14	31
32	·007	·992	·978	·963	·948	·934	·919	·904	·889	·875	15	32
33	12·860	·845	·830	·815	·800	·785	·769	·754	·739	·724	15	33
34	·709	·694	·678	·663	·647	·632	·616	·601	·585	·570	16	34
35	·554	·538	·522	·506	·490	·474	·458	·442	·426	·410	16	35
36	·394	·378	·361	·345	·329	·313	·296	·280	·264	·247	16	36
37	·231	·214	·198	·181	·165	·148	·131	·115	·098	·082	17	37
38	·065	·048	·031	·014	·997	·980	·962	·945	·928	·911	17	38
39	11·894	·877	·859	·842	·824	·807	·789	·772	·754	·737	18	39
40	·719	·701	·684	·666	·648	·631	·613	·595	·577	·560	18	40
41	·542	·524	·506	·488	·470	·452	·433	·415	·397	·379	18	41
42	·361	·343	·324	·306	·287	·269	·250	·232	·213	·195	19	42
43	·176	·157	·138	·120	·101	·082	·063	·044	·026	·007	19	43
44	10·988	·969	·950	·931	·912	·893	·873	·854	·835	·816	19	44
45	·797	·778	·758	·739	·719	·700	·680	·661	·641	·622	20	45
46	·602	·582	·562	·543	·523	·503	·483	·463	·444	·424	20	46
47	·404	·384	·364	·344	·324	·304	·283	·263	·243	·223	20	47
48	·203	·183	·162	·142	·121	·101	·080	·060	·039	·019	21	48
49	9·998	·977	·956	·935	·914	·894	·873	·852	·831	·810	21	49
50	·789	·768	·747	·725	·704	·683	·662	·641	·619	·598	21	50
51	·577	·555	·534	·512	·490	·469	·447	·425	·403	·382	22	51
52	·360	·338	·316	·294	·272	·250	·228	·206	·184	·162	22	52
53	·140	·118	·095	·073	·050	·028	·005	·983	·960	·938	23	53
54	8·915	·892	·869	·847	·824	·801	·778	·755	·733	·710	23	54
55	·687	·664	·640	·617	·594	·571	·547	·524	·501	·477	23	55
56	·454	·430	·406	·383	·359	·335	·311	·287	·264	·240	24	56
57	·216	·192	·168	·144	·120	·096	·071	·047	·023	·999	24	57
58	7·975	·950	·926	·901	·877	·852	·827	·803	·778	·754	25	58
59	·729	·704	·679	·655	·630	·605	·580	·555	·531	·506	25	59

MALE AND FEMALE.

5 PER CENT. — SELECT VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. — 5 PER CENT.

x	At Date of Purchase $a_{[xx]}$ ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
60	7·481	·456	·430	·405	·380	·355	·329	·304	·279	·253	25	60
61	·228	·203	·177	·152	·126	·101	·075	·050	·024	·999	26	61
62	6·973	·947	·922	·896	·870	·845	·819	·793	·767	·742	26	62
63	·716	·690	·664	·639	·613	·587	·561	·535	·510	·484	26	63
64	·458	·432	·406	·381	·355	·329	·303	·277	·252	·226	26	64
65	·200	·174	·148	·122	·096	·071	·045	·019	·993	·967	26	65
66	5·941	·915	·890	·864	·839	·813	·787	·762	·736	·711	26	66
67	·685	·660	·634	·609	·583	·558	·533	·507	·482	·456	25	67
68	·431	·406	·381	·356	·331	·306	·281	·256	·231	·206	25	68
69	·181	·156	·132	·107	·082	·058	·033	·008	·983	·959	25	69
70	4·934	·910	·886	·861	·837	·813	·789	·765	·740	·716	24	70
71	·692	·668	·645	·621	·598	·574	·550	·527	·503	·480	24	71
72	·456	·433	·410	·387	·364	·341	·318	·295	·272	·249	23	72
73	·226	·204	·181	·159	·136	·114	·091	·069	·046	·024	23	73
74	·001	·979	·958	·936	·914	·893	·871	·849	·827	·806	22	74
75	3·784	·763	·742	·721	·700	·679	·658	·637	·616	·595	21	75
76	·574	·554	·533	·513	·492	·472	·452	·431	·411	·390	20	76
77	·370	·350	·331	·311	·292	·272	·252	·233	·213	·194	20	77
78	·174	·155	·136	·117	·098	·080	·061	·042	·023	·004	19	78
79	2·985	·967	·949	·930	·912	·894	·876	·858	·839	·821	18	79
80	·803	·786	·768	·751	·733	·716	·699	·681	·664	·646	17	80
81	·629	·612	·595	·579	·562	·545	·528	·511	·495	·478	17	81
82	·461	·445	·429	·413	·397	·381	·365	·349	·333	·317	16	82
83	·301	·286	·270	·255	·239	·224	·209	·193	·178	·162	15	83
84	·147	·132	·118	·103	·089	·074	·059	·045	·030	·016	15	84
85	·001	·987	·973	·959	·945	·931	·917	·903	·889	·875	14	85
86	1·861	·848	·834	·821	·808	·795	·781	·768	·755	·741	13	86
87	·728	·715	·702	·690	·677	·664	·651	·638	·626	·613	13	87
88	·600	·588	·576	·564	·552	·540	·528	·516	·504	·492	12	88
89	·480	·469	·457	·446	·434	·423	·411	·400	·388	·377	12	89
90	·365	·354	·343	·333	·322	·311	·300	·289	·279	·268	11	90
91	·257	·247	·236	·226	·216	·206	·195	·185	·175	·164	10	91
92	·154	·144	·134	·125	·115	·105	·095	·085	·076	·066	10	92
93	·056	·047	·038	·029	·020	·011	·001	·992	·983	·974	9	93
94	0·965	·956	·947	·939	·930	·921	·912	·903	·895	·886	9	94
95	·877	·869	·861	·853	·845	·837	·829	·821	·813	·805	8	95
96	·797	·789	·782	·774	·766	·759	·751	·743	·735	·728	8	96
97	·720	·713	·706	·699	·692	·685	·677	·670	·663	·656	7	97
98	·649	·642	·636	·629	·622	·616	·609	·602	·595	·589	7	98
99	·582	...	...	...	...	...	...	...	...	...	...	99

MALE AND FEMALE.

5 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 5 PER CENT.

x	After Five Years from Purchase a_{xx} ·0	·1	·2	·3	·4	·5	·6	·7	·8	·9	Diff.	x
25	13·641	·629	·618	·606	·594	·583	·571	·559	·547	·536	12	25
26	·524	·512	·500	·487	·475	·463	·451	·439	·426	·414	12	26
27	·402	·389	·377	·364	·351	·339	·326	·313	·300	·288	13	27
28	·275	·262	·249	·235	·222	·209	·196	·183	·169	·156	13	28
29	·143	·129	·116	·102	·088	·075	·061	·047	·033	·020	14	29
30	·006	·992	·978	·964	·950	·936	·922	·908	·894	·880	14	30
31	12·866	·852	·837	·823	·808	·794	·779	·765	·750	·736	15	31
32	·721	·706	·691	·676	·661	·647	·632	·617	·602	·587	15	32
33	·572	·557	·541	·526	·510	·495	·479	·464	·448	·433	16	33
34	·417	·401	·385	·370	·354	·338	·322	·306	·291	·275	16	34
35	·259	·243	·227	·210	·194	·178	·162	·146	·129	·113	16	35
36	·097	·080	·063	·047	·030	·013	·996	·979	·963	·946	17	36
37	11·929	·912	·895	·878	·861	·844	·827	·810	·793	·776	17	37
38	·759	·742	·724	·707	·689	·672	·655	·637	·620	·602	17	38
39	·585	·567	·549	·532	·514	·496	·478	·460	·443	·425	18	39
40	·407	·389	·371	·352	·334	·316	·298	·280	·261	·243	18	40
41	·225	·207	·188	·170	·151	·133	·114	·096	·077	·059	19	41
42	·040	·021	·002	·984	·965	·946	·927	·908	·890	·871	19	42
43	10·852	·833	·814	·794	·775	·756	·737	·718	·698	·679	19	43
44	·660	·641	·621	·602	·582	·563	·543	·524	·504	·485	20	44
45	·465	·445	·425	·405	·385	·366	·346	·326	·306	·286	20	45
46	·266	·246	·226	·205	·185	·165	·145	·125	·104	·084	20	46
47	·064	·043	·023	·002	·982	·961	·940	·920	·899	·879	21	47
48	9·858	·837	·816	·795	·774	·754	·733	·712	·691	·670	21	48
49	·649	·628	·607	·585	·564	·543	·522	·501	·479	·458	21	49
50	·437	·415	·394	·372	·351	·329	·307	·286	·264	·243	22	50
51	·221	·199	·177	·155	·133	·111	·089	·067	·045	·023	22	51
52	·001	·979	·956	·934	·911	·889	·867	·844	·822	·799	22	52
53	8·777	·754	·731	·709	·686	·663	·640	·617	·595	·572	23	53
54	·549	·526	·503	·479	·456	·433	·410	·387	·363	·340	23	54
55	·317	·294	·270	·247	·223	·200	·176	·153	·129	·106	24	55
56	·082	·058	·034	·010	·986	·962	·938	·914	·890	·866	24	56
57	7·842	·818	·793	·769	·744	·720	·695	·671	·646	·622	25	57
58	·597	·572	·547	·523	·498	·473	·448	·423	·399	·374	25	58
59	·349	·324	·299	·273	·248	·223	·198	·173	·147	·122	25	59
60	·097	·072	·046	·021	·995	·970	·944	·919	·893	·868	26	60
61	6·842	·816	·790	·765	·739	·713	·687	·661	·636	·610	26	61
62	·584	·558	·532	·506	·480	·454	·428	·402	·376	·350	26	62
63	·324	·298	·272	·245	·219	·193	·167	·141	·114	·088	26	63
64	·062	·036	·010	·983	·957	·931	·905	·879	·852	·826	26	64

MALE AND FEMALE.

5 PER CENT. ULTIMATE VALUES OF ANNUITIES ON TWO JOINT LIVES OF EQUAL AGE. 5 PER CENT.

x	After Five Years from Purchase a_{xx}										Diff.	x
	·0	·1	·2	·3	·4	·5	·6	·7	·8	·9		
65	5·800	·774	·748	·721	·695	·669	·643	·617	·590	·564	26	65
66	·538	·512	·486	·460	·434	·408	·381	·355	·329	·303	26	66
67	·277	·251	·225	·199	·173	·148	·122	·096	·070	·044	26	67
68	·018	·993	·967	·942	·916	·891	·865	·840	·814	·789	26	68
69	4·763	·738	·713	·688	·663	·638	·612	·587	·562	·537	25	69
70	·512	·487	·463	·438	·413	·389	·364	·339	·314	·290	25	70
71	·265	·241	·217	·193	·169	·145	·120	·096	·072	·048	24	71
72	·024	·001	·977	·954	·930	·907	·883	·860	·836	·813	24	72
73	3·789	·766	·743	·721	·698	·675	·652	·629	·607	·584	23	73
74	·561	·539	·517	·495	·473	·451	·428	·406	·384	·362	22	74
75	·340	·319	·297	·276	·255	·234	·212	·191	·170	·148	21	75
76	·127	·107	·086	·066	·045	·025	·004	·984	·963	·943	21	76
77	2·922	·902	·882	·863	·843	·823	·803	·783	·764	·744	20	77
78	·724	·705	·686	·667	·648	·629	·610	·591	·572	·553	19	78
79	·534	·516	·498	·480	·462	·444	·425	·407	·389	·371	18	79
80	·353	·336	·318	·301	·284	·267	·249	·232	·215	·197	17	80
81	·180	·164	·147	·131	·114	·098	·081	·065	·048	·032	17	81
82	·015	·999	·984	·968	·952	·937	·921	·905	·889	·874	16	82
83	1·858	·843	·828	·813	·798	·784	·769	·754	·739	·724	15	83
84	·709	·695	·681	·667	·653	·639	·624	·610	·596	·582	14	84
85	·568	·555	·541	·528	·514	·501	·488	·474	·461	·447	13	85
86	·434	·422	·409	·397	·384	·372	·359	·347	·334	·322	13	86
87	·309	·297	·285	·273	·261	·250	·238	·226	·214	·202	12	87
88	·190	·179	·168	·157	·146	·135	·123	·112	·101	·090	11	88
89	·079	·069	·058	·048	·037	·027	·017	·006	·996	·985	10	89
90	0·975	·965	·956	·946	·936	·927	·917	·907	·897	·888	10	90
91	·878	·869	·860	·851	·842	·833	·823	·814	·805	·796	9	91
92	·787	·779	·770	·762	·753	·745	·737	·728	·720	·711	8	92
93	·703	·695	·687	·680	·672	·664	·656	·648	·641	·633	8	93
94	·625	·618	·611	·603	·596	·589	·582	·575	·567	·560	7	94
95	·553	·546	·540	·533	·526	·520	·513	·506	·499	·493	7	95
96	·486	·480	·474	·468	·462	·456	·449	·443	·437	·431	6	96
97	·425	·420	·414	·409	·403	·398	·393	·387	·382	·376	5	97
98	·371	·366	·360	·355	·350	·345	·339	·334	·329	·323	5	98
99	·318	·314	·310	·306	·302	·299	·295	·291	·287	·283	4	99
100	·279	·275	·270	·266	·261	·257	·252	·248	·243	·239	5	100
101	·234	·229	·224	·218	·213	·208	·203	·198	·192	·187	5	101
102	·182	·178	·174	·170	·166	·162	·157	·153	·149	·145	4	102
103	·141	...	...	...	...	...	...	...	...	...	...	103

MEMORANDUM AS TO THE TWO-LIFE TABLES.

(1) The Mortality Table for Female Annuitants does not follow Makeham's Law: hence the method of Uniform Seniority does not apply to joint-life annuities if either (or both) of the lives be Female. The joint-life annuities have, therefore, been calculated at $2\frac{1}{2}$ per cent., 3 per cent. and $3\frac{1}{2}$ per cent. interest for each pair of ages differing by a multiple of 5 years. When the difference of age is *not* a multiple of 5 years, the annuity value must be found by interpolating between the nearest tabular values. Usually, an interpolation by first differences will suffice, but in some cases this may involve an error of about 2 in the second decimal place, and, if greater accuracy be required, second differences must be employed. The process will be as follows:

(2) Let x be the age of the elder life, and let the age of the younger be $y+t$, lying between y and $y+5$, where $a_{x:y}$ and $a_{x:y+5}$ are given in the Tables. Then, if $a_{xy}=u_0$, $a_{x:y+5}=u_5$ and $a_{x:y+10}=u_{10}$, we shall have by the ordinary interpolation formula (stopping at second differences)

$$a_{x:y+t}=u_0+\frac{t}{5}\Delta u_0-\frac{t.\overline{5-t}}{50}\Delta^2 u_0 \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (1)$$

(3) By Woolhouse's Central Difference Interpolation formula (which usually gives slightly more accurate results with precisely the same labour) the result will be

$$a_{x:y+t}=u_0+\frac{t}{5}\Delta u_0-\frac{t.\overline{5-t}}{50}\Delta^2 u_{-5} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (2)$$

where $u_{-5}=a_{x:y-5}$, and $\Delta^2 u_{-5}$ is the *central second difference.**

(4) For integral ages the value of t will be either 1, 2, 3 or 4, and the following Table shews the numerical value of the coefficients in each case.

t	Coeff$^{t.}$ of Δ $\frac{t}{5}$	Coeff$^{t.}$ of Δ^2 $-\frac{t.\overline{5-t}}{50}$
1	·2	−·08
2	·4	−·12
3	·6	−·12
4	·8	−·08

* Alternative formulæ, expressed in terms of u_0, u_5 and u_{10} (or of u_{-5}, u_0 and u_5), instead of u_0 and its differences, will be found in the *Journal of the Institute of Actuaries*, xxxii, 289, where also Tables of the numerical coefficients are given.

(5) For example, if $a^{F}_{[40]:}{}^{M}_{[33]}$ be required, at $2\frac{1}{2}$ per cent., the calculation will be as follows by Formula (2):

$$
\begin{array}{lll}
u_{-5}=a^{F}_{[40]:}{}^{M}_{[25]}=17\cdot183 & & \\
 & -\cdot444 & \\
u_{0}\ =a_{[40]:[30]}=16\cdot739 & & -\cdot167 \\
 & -\cdot611 & \\
u_{+5}=a_{[40]:[35]}=16\cdot128 & &
\end{array}
$$

$$
\begin{aligned}
u_3=a^{F}_{[40]:}{}^{M}_{[33]}&=16\cdot739+(\cdot6\times-\cdot611)-(\cdot12\times-\cdot167)\\
&=16\cdot739-\cdot367+\cdot020\\
&=16\cdot392
\end{aligned}
$$

If only first differences be used, the last term will be omitted, and the result will be 16·372. If formula (1) be employed, the calculated value of $a^{F}_{[40]:}{}^{M}_{[33]}$ will be 16·395.

(6) For the sake of completeness the tables of annuity values, for each pair of ages differing by a multiple of 5 years, have been given for Two Male Lives, as well as for Two Female Lives, and for a Male and Female jointly. As, however, the Mortality Table for Male Lives follows strictly Makeham's first modification of Gompertz's Law, the principle of "Uniform Seniority" will apply in all cases of joint life annuities on Two Male Lives, and this gives an alternative method of calculation which will usually be more advantageous. A Table of Uniform Seniority for Male Lives will be found on p. 190, from which can be found by inspection the equal ages (correct to two decimal places) equivalent to any pair of Male Lives of unequal age; it is specially to be noted that the equivalent equal ages will be the same whether the Select annuity, or the annuity after five years from purchase, be required. The values of annuities on Two Male Lives of equal ages at $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, and 5 per cent. are given on pp. 192–211, and for convenience in applying the method of equal ages, such annuity values are tabulated according to each tenth of a year of age.

(7) For example, if $a^{M}_{[43]:}{}^{M}_{[31]}$ be required at $3\frac{1}{2}$ per cent. the calculation will be as follows:—

By the method of equal ages.

Here the difference h between the ages=12, and entering the Table on p. 190 with this value of h, the tabular value t=7·51. Thus the value of the required annuity is equal to that of an annuity on two lives of equal age 38·51. From the Table of annuity values on p. 200 we have

$$a_{[38\cdot51]:[38\cdot51]}=13\cdot864.$$

By the ordinary method of interpolation.

$$
\begin{array}{lll}
u_{-5}=a_{[43]:[23]}=14\cdot268 & & \\
 & -\cdot223 & \\
u_{0}\ =a_{[43]:[28]}=14\cdot045 & & -\cdot098 \\
 & -\cdot321 & \\
u_{+5}=a_{[43]:[33]}=13\cdot724 & &
\end{array}
$$

$$
\begin{aligned}
u_3=a_{[43]:[31]}&=14\cdot045+(\cdot6\times-\cdot321)\\
&\quad-(\cdot12\times-\cdot098)\\
&=14\cdot045-\cdot193+\cdot012\\
&=13\cdot864
\end{aligned}
$$

The two results are, in this case, identical.

(8) In the case of annuities at 4 and 5 per cent. (which are not likely to be very frequently required), it has been thought sufficient to tabulate the values for joint lives of equal ages, and it will be found that these values afford the means of calculating the annuity values for other combinations of ages with considerable facility. In the case of Two Male Lives the annuity values will be found by the method of Uniform Seniority, as shown in the last example; when Female Lives are involved the principle of Uniform Seniority does not apply, and a different procedure (which can best be illustrated by an example) must be adopted.

(9) Let the value a_{xy} be required at 4 or 5 per cent. If a_{xy} at 3 and $3\frac{1}{2}$ per cent. be calculated, as shewn in paragraph (5), and if (by entering the Tables inversely and applying the principle of proportional parts) ages w_1 and w_2 be found such that at 3 per cent. $a_{xy}=a_{w_1:w_1}$ and at $3\frac{1}{2}$ per cent. $a_{xy}=a_{w_2:w_2}$, it will be found that w_1 and w_2 differ by a very small (in many cases, a *negligible*) quantity. Hence, assuming first differences of w constant, the corresponding values of w when the rate of interest is 4 or 5 per cent. will be

$$4\% \quad w_3=w_2+\ (w_2-w_1)=2w_2-w_1$$
$$5\% \quad w_5=w_2+3(w_2-w_1)=4w_2-3w_1$$

When the age of the younger life is not less than 50 and that of the elder life not less than 70, it will be quite sufficient to use w_2 (the equal ages according to the $3\frac{1}{2}$ per cent. annuity) without modification. For younger ages the difference between w_2 and w_3 or w_5 should be calculated by the formulæ given above if the utmost accuracy be required. The appended Table, shewing for interval ages the value of 1,000 (w_2-w_1), affords a ready means of judging whether, in any given case, the use of the age w_2 (without modification) will be sufficiently accurate for the purpose in hand.

(10) It is to be specially noted that the values of w_1 and w_2 will differ according as the lives x and y be (1) Both Females, or (2) Male and Female (*Male* the Elder), or (3) Male and Female (*Female* the Elder), and also according as the Select or ultimate annuity value be required. Care must therefore be taken to use the proper annuity values in determining w_1 and w_2, and to enter the appropriate table of annuity values, on lives of equal ages, after the approximate value of w_3 or w_5 has been ascertained.

(11) For example, let the value of $a_{\overset{F}{[40]}:\overset{M}{[25]}}$ be required at 5 per cent. The first step is to calculate the corresponding values at 3 and $3\frac{1}{2}$ per cent.

3 per cent.

$$u_{-5}=a_{\overset{F}{[40]}:\overset{M}{[20]}}=16{\cdot}378$$
$$-{\cdot}274$$
$$u_0=a_{[40]:[25]}=16{\cdot}104 \qquad -{\cdot}115$$
$$-{\cdot}389$$
$$u_5=a_{[40]:[30]}=15{\cdot}715$$
$$u_3=a_{[40]:[28]}=16{\cdot}104+({\cdot}6\times-{\cdot}389)$$
$$-({\cdot}12\times-{\cdot}115)$$
$$=16{\cdot}104-{\cdot}233+{\cdot}014$$
$$=15{\cdot}885$$

Entering inversely the Table for equal ages (Male and Female respectively) we find

$$15{\cdot}885=a_{[34{\cdot}634]:[34{\cdot}634]}$$

$3\frac{1}{2}$ per cent.

$$u_{-5}=15{\cdot}371$$
$$-{\cdot}239$$
$$u_0=15{\cdot}132 \qquad -{\cdot}103$$
$$-{\cdot}342$$
$$u_5=14{\cdot}790$$
$$u_3=a_{[40]:[28]}=15{\cdot}132+({\cdot}6\times-{\cdot}342)$$
$$-({\cdot}12\times-{\cdot}103)$$
$$=15{\cdot}132-{\cdot}205+{\cdot}012$$
$$=14{\cdot}939$$

Entering inversely the Table for equal ages (Male and Female respectively) we find

$$14{\cdot}939=a_{[34{\cdot}646]:[34{\cdot}646]}$$

Hence $w_1=34{\cdot}634$, $w_2=34{\cdot}646$, $(w_2-w_1)={\cdot}012$.

Thus w_5, the equal age for 5 per cent. interest approximately equals

$$34{\cdot}646+3\times{\cdot}012=34{\cdot}682.$$

At 5 per cent. we have by interpolation

$$a_{\overset{M}{[34{\cdot}682]}:\overset{F}{[34{\cdot}682]}}=12{\cdot}603$$

which is the approximate value required.

(12) As a second example, take $a_{\overset{F}{[50]}:\overset{F}{[23]}}$ at 5 per cent. The calculation, on similar lines, but using formula (1), will be as follows:—

3 per cent.

$$u_0 = a_{\overset{F}{[50]}:\overset{F}{[20]}} = 14\cdot282$$
$$-\cdot159$$
$$u_5 = a_{[50]:[25]} = 14\cdot123 \qquad -\cdot067$$
$$-\cdot226$$
$$u_{10} = a_{[50]:[30]} = 13\cdot897$$
$$u_3 = a_{[50]:[23]} = 14\cdot282 + (\cdot6 \times -\cdot159) - (\cdot12 \times -\cdot067)$$
$$= 14\cdot282 - \cdot095 + \cdot008$$
$$= 14\cdot195$$

Entering inversely the Table for equal ages (Two Females) we find

$$14\cdot195 = a_{[42\cdot218]:[42\cdot218]}$$

3½ per cent.

$$u_0 = 13\cdot528$$
$$-\cdot144$$
$$u_5 = 13\cdot384 \qquad -\cdot061$$
$$-\cdot205$$
$$u_{10} = 13\cdot179$$
$$u_3 = a_{[50]:[23]} = 13\cdot528 + (\cdot6 \times -\cdot144) - (\cdot12 \times -\cdot061)$$
$$= 13\cdot528 - \cdot086 + \cdot007$$
$$= 13\cdot449$$

Entering inversely the Table for equal ages (Two Females) we find

$$13\cdot449 = a_{[42\cdot148]:[42\cdot148]}$$

Hence $w_1 = 42\cdot218$, $w_2 = 42\cdot148$, $(w_2 - w_1) = -\cdot070$.

Thus w_5, the equal age for 5 per cent. interest, approximately equals

$$42\cdot148 - 3 \times \cdot070 = 41\cdot938.$$

At 5 per cent. we have by interpolation

$$a_{\overset{F}{[41\cdot938]}:\overset{F}{[41\cdot938]}} = 11\cdot565,$$

which is the approximate value required.

(13) As a check on the accuracy of the method, the values of $a_{\overset{F}{[40]}:\overset{M}{[28]}}$ and $a_{\overset{F}{[50]}:\overset{F}{[23]}}$, which have been calculated in paragraphs (11) and (12), have been worked out afresh by one of Mr. G. F. Hardy's Summation Formulæ. The results are 12·592 and 11·535 respectively, as against 12·603 and 11·565 by the method of paragraph (9). The close agreement of the results obtained by such widely different approximate processes must be considered very satisfactory.

Note.—In the Tables of Select and Ultimate values of Annuities on Two Joint Lives of Equal Age, given on pages 192 to 227 inclusive, the reduction of the integral portion of the annuity-value, as set out in the column headed **·0**, by unity, is indicated by printing the fractional portion of the annuity-value in **large black type.** Thus (p. 192, Two Males, 2½ per cent.) $a_{[37\cdot5][37\cdot5]} = 15\cdot856$; (p. 194, Two Males, 2½ per cent.) $a_{42\cdot3:42\cdot3} = 13\cdot905$; &c., &c.

TABLE SHEWING THE VALUE OF 1000 $(w_2 - w_1)$.

At Date of Purchase				Five Years or more after Purchase			
Ages.	Two Females.	Male and Female. Male the Elder.	Male and Female. Female the Elder.	Two Females.	Male and Female. Male the Elder.	Male and Female. Female the Elder.	Ages.
20 25	− 5	− 13	+ 11	0	− 10	+ 15	25 30
30	0	− 18	+ 20	− 6	− 30	+ 20	35
35	− 17	− 31	+ 26	− 23	− 32	+ 19	40
40	− 33	− 36	+ 17	− 44	− 33	− 3	45
45	− 50	− 29	− 4	− 62	− 32	− 25	50
50	− 77	− 26	− 32	− 62	− 18	− 36	55
55	− 62	− 10	− 41	− 44	− 4	− 34	60
60	− 35	+ 4	− 43	− 11	+ 5	− 21	65
65	− 7	+ 10	− 21	− 2	+ 5	− 12	70
25 30	0	− 16	+ 10	− 6	− 12	+ 14	30 35
35	− 11	− 26	+ 19	− 19	− 24	+ 10	40
40	− 27	− 28	+ 9	− 34	− 28	0	45
45	− 46	− 25	− 9	− 55	− 23	− 19	50
50	− 65	− 22	− 29	− 53	− 15	− 34	55
55	− 64	− 10	− 41	− 40	− 2	− 35	60
60	− 35	0	− 41	− 10	+ 7	− 23	65
65	− 4	+ 8	− 19	+ 3	+ 6	− 9	70
30 35	− 5	− 6	+ 6	− 4	− 8	+ 5	35 40
40	− 14	− 15	+ 10	− 20	− 17	− 1	45
45	− 36	− 19	− 8	− 35	− 9	− 15	50
50	− 45	− 19	− 24	− 45	− 5	− 30	55
55	− 56	− 7	− 35	− 29	+ 3	− 36	60
60	− 28	+ 4	− 37	− 7	+ 7	− 20	65
65	− 5	+ 9	− 21	+ 3	+ 4	− 8	70
35 40	− 1	− 10	+ 5	− 2	− 5	− 6	40 45
45	− 23	− 15	− 5	− 16	0	− 11	50
50	− 32	− 3	− 22	− 25	+ 3	− 25	55
55	− 31	+ 1	− 28	− 20	+ 7	− 32	60
60	− 18	+ 4	− 34	− 2	+ 9	− 15	65
65	− 3	+ 11	− 19	+ 5	+ 8	− 7	70
40 45	− 3	− 4	− 5	− 7	+ 3	− 7	45 50
50	− 12	+ 4	− 17	− 7	+ 2	− 17	55
55	− 18	+ 7	− 31	− 6	+ 10	− 21	60
60	− 9	+ 14	− 27	+ 6	+ 9	− 16	65
65	+ 3	+ 11	− 16	+ 6	+ 12	− 6	70
70	+ 5	+ 7	− 4				
45 50	− 6	0	− 3	+ 1	+ 5	− 9	50 55
55	− 9	+ 11	− 22	− 1	+ 11	− 14	60
60	0	+ 14	− 23	+ 3	+ 9	− 11	65
65	+ 8	+ 13	− 9	+ 6	+ 6	− 5	70
70	+ 8	+ 9	− 5				