M.R.O. 1—77,006—8-6-37.

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MADRAS RECORD OFFICE.

Government of Madras.

Financial DEPARTMENT.

G.O. No. 140	Press & Mis.
1971-72	1971-1972
Dated 26-1-	1875.

10/11

Not to be folded or roughly handled

10 8/40

Loans.

No. 191. Read the following Circular from E. F. HARRISON, Esq., Comptroller-General, to all Accountants-General, dated Calcutta, 15th January 1875, No. 195 :—

As several loans have been made by Government to local corporations on condition that they shall bear interest at 4½ per cent. and be repaid by half-yearly instalments, I have prepared, and publish in the margin, a table whereby you will easily answer questions which may be put to you as to the term required to clear such a loan if repayment be by instalments of fixed amount, or the instalment required to clear it in a certain time.

2. I take this opportunity of circulating annuity tables at common rates which I have had reproduced; application thereto of the principles of the examples given with the 4½ per cent. half-yearly table will enable you to give the information spoken of in paragraph 14 of my Circular No. 145, without using the formula therein published.

Amount of £1 per annum, at 2¼ per cent., for any number of years, from 1 to 80.

1	1·000000	21	26·472029	41	66·221365	61	128 250570
2	2·022500	22	28·067650	42	68·711346	62	132·136208
3	3·068004	23	29 699172	43	71·257351	63	136·109272
4	4·137036	24	31·367403	44	73·860642	64	140·171731
5	5·230120	25	33·073170	45	76·522506	65	144·325595
6	6·347797	26	34 817216	46	79·244262	66	148·572921
7	7·490623	27	36·600706	47	82·027258	67	152·915811
8	8·659295	28	38·424222	48	84·872876	68	157·356417
9	9·853993	29	40·288767	49	87·782511	69	161·896937
10	11·075708	30	42·195264	50	90·757618	70	166·539618
11	12·324911	31	44·144657	51	93·799664	71	171·286759
12	13·602222	32	46·137912	52	96·910157	72	176·140711
13	14·908272	33	48·176015	53	100·090635	73	181·103877
14	16·243708	34	50·259976	54	103·342674	74	186·178714
15	17·609191	35	52·390825	55	106·677885	75	191·367735
16	19·005398	36	54·569619	56	110·067912	76	196 673509
17	20·433020	37	56·797435	57	113·544440	77	202·098663
18	21·892763	38	59·075377	58	117·099190	78	207·645883
19	23·385350	39	61·404573	59	120·733922	79	213·317916
20	24·911742	40	63 786176	60	124·450435	80	219·417569

NOTE.—The amount of £1 paid at the end of every *half-year*, improved at the rate of 4½ per cent. per annum, is the same as the amount of £1 paid at the end of every year improved at 2¼ per cent. for double the time.

APPLICATION OF TABLE TO LOANS AT 4½ PER CENT.

Required amount of half-yearly instalment which in a given time will discharge a loan with interest.

Divide amount of loan by number against double the number of years, add to quotient interest for one half-year.

EXAMPLE.

Required amount of half-yearly instalment to discharge in 30 years loan of Rupees 1,00,000, interest 4½ per cent. $\frac{1,00,000}{124·450435}$ = ... 803·5

Add interest on loan for one half-year 2250

Total Rupees ... 3053·5

Required the time in which a given half-yearly instalment would discharge a loan with interest of 4½ per cent.

RULE.—Deduct interest for one half-year from instalment, divide amount of loan by the remainder; look in table for next higher number than the quotient, the figures against such number will indicate the half-year in which the loan will be discharged in full.

EXAMPLE.

In what time will half-yearly instalments of Rupees 4,000 pay off a loan of Rs. 1,00,000?

$\frac{1,00,0000}{400-2250}$ = 57·1 Loan will be paid off in 38th half-year.

No. 1271.

Copy forwarded to the Secretary to the Government of Madras for information.

(Signed) E. GAY,
Deputy Comptroller-General.

3/

Proceedings of the Madras Government, Financial Department,
26th January 1875.

No. 192. ORDER THEREON, 26th January 1875, No. 140.

Copy furnished to the Board of Revenue.

(True Extract.)

Acting Chief Secretary.

To the Board of Revenue.

Exd. T. O'Connor.

ANNUITY TABLES, &c.

Govt. of {1875} Madras.

FINANCIAL.

To THE BOARD OF REVENUE.

Dated January, 26th.

Recd. *Read.*

G.O., 26th January 1875, No. 140.

JANUARY.
Nos. 191-192.

Loans.—Copy of the Comptroller-General's Circular forwarding Annuity Tables for computing interest on Government loans to local Corporations, furnished to the Board of Revenue.

Amount of £1 per annum, at 2½ per cent., for any number of years, from 1 to 80.

1	1·000000	28	38·424222	55	106·677885
2	2·022500	29	40·288767	56	110·067912
3	3·068004	30	42·195264	57	113·544440
4	4·137036	31	44·144657	58	117·099190
5	5·230120	32	46·137912	59	120·733922
6	6·347797	33	48·176015	60	124·450435
7	7·490623	34	50·259976	61	128·250570
8	8·659295	35	52·390825	62	132·136208
9	9·853393	36	54·569619	63	136·109272
10	11·075708	37	56·797435	64	140·171731
11	12·324911	38	59·075377	65	144·325595
12	13·602222	39	61·404573	66	148·572921
13	14·908272	40	63·786176	67	152·915811
14	16·243708	41	66·221365	68	157·356417
15	17·609191	42	68·711346	69	161·896937
16	19·005398	43	71·257351	70	166·539618
17	20·433020	44	73·860642	71	171·286759
18	21·892763	45	76·522506	72	176·140711
19	23·385350	46	79·244262	73	181·103877
20	24·911742	47	82·027258	74	186·178714
21	26·472029	48	84·872876	75	191·367735
22	28·067650	49	87·782511	76	196·673509
23	29·699172	50	90·757618	77	202·098663
24	31·367403	51	93·799664	78	207·645883
25	33·073170	52	96·910157	79	213·317916
26	34·817216	53	100·090635	80	219·417569
27	36·600706	54	103·342674		

NOTE.—The amount of £1 paid at the end of every *half-year*, improved at the rate of 4½ per cent. per annum, is the same as the amount of £1 paid at the end of every year improved at 2¼ per cent. for double the time.

APPLICATION OF TABLE TO LOANS AT 4½ PER CENT.

Required amount of half-yearly instalment which in a given time will discharge a loan with interest.

Divide amount of loan by number against double the number of years, add to quotient interest for one half-year.

EXAMPLE.

Required amount of half-yearly instalment to discharge in 30 years loan of Rs. 1,00,000, interest 4½ per cent.

$$\frac{1,00,000}{124{\cdot}450435} = \quad \ldots \quad 803{\cdot}5$$

Add interest on loan for one half-year ... 2250 ·

TOTAL Rs. ... 3053·5

Required the time in which a given half-yearly instalment would discharge a loan with interest of 4½ per cent.

RULE.—Deduct interest for one half-year from instalment, divide amount of loan by the remainder; look in table for next higher number than the quotient, the figures against such number will indicate the half-year in which the loan will be discharged in full.

EXAMPLE.

In what time will half-yearly instalments of Rs. 4,000 pay off a loan of Rs. 1,00,000?

$$\frac{1,00,000}{4000-2250} = 57{\cdot}1 \left\{ \text{Loan will be paid off in 38th half-year.} \right.$$

TABLE VII.

Amount of £1 laid at compound interest for any number of years.

Years	2¼ per cent.	3 per cent.	3½ per cent.	4 per cent.	4½ per cent.	5 per cent.	6 per cent.
1	1.025000	1.030000	1.035000	1.040000	1.045000	1.050000	1.060000
2	1.050625	1.060900	1.071225	1.081600	1.092025	1.102500	1.123600
3	1.076891	1.092727	1.108718	1.124864	1.141166	1.157625	1.191016
4	1.103813	1.125509	1.147523	1.169859	1.192519	1.215506	1.262477
5	1.131408	1.159274	1.187686	1.216653	1.246182	1.276282	1.338226
6	1.159693	1.194052	1.229255	1.265319	1.302260	1.340096	1.418519
7	1.188686	1.229874	1.272279	1.315932	1.360862	1.407100	1.503630
8	1.218403	1.266770	1.316809	1.368569	1.486095	1.551328	1.689479
9	1.248863	1.304773	1.362897	1.423312	1.552969	1.628895	1.790848
10	1.280085	1.343916	1.410599	1.480244	1.622853	1.710339	1.898299
11	1.312087	1.384234	1.459970	1.539454	1.695881	1.795856	2.012196
12	1.344889	1.425761	1.511069	1.601032	1.772196	1.885649	2.132928
13	1.378511	1.468534	1.563956	1.665074	1.851945	1.979932	2.260904
14	1.412974	1.512590	1.618695	1.731676	1.851945	2.078928	2.396558
15	1.448298	1.557967	1.675349	1.800944	1.935282	2.182875	2.540352
16	1.484506	1.604706	1.733986	1.872981	2.022370	2.292018	2.692773
17	1.521618	1.652848	1.794676	1.947900	2.113377	2.406619	2.854339
18	1.559659	1.702433	1.857489	2.025817	2.208479	2.526950	3.025599
19	1.598650	1.753506	1.922501	2.106849	2.307860	2.653298	3.207135
20	1.638616	1.806111	1.989789	2.191123	2.411714	2.785963	3.399564
21	1.679582	1.860295	2.059431	2.278768	2.520241	2.925261	3.603537
22	1.721571	1.916103	2.131512	2.369919	2.633652	3.071524	3.819750
23	1.764611	1.973587	2.206114	2.464716	2.752166	3.225100	4.048935
24	1.808726	2.032794	2.283328	2.563304	2.876014	3.386355	4.291871
25	1.853944	2.093778	2.363245	2.665836	3.005434	3.555673	4.549383
26	1.900293	2.156591	2.445959	2.772470	3.140679	3.733456	4.822346
27	1.947800	2.221289	2.531567	2.883369	3.282010	3.738455	5.111687
28	1.996495	2.287928	2.620172	2.998703	3.429700	3.920123	5.111687
29	2.046407	2.356566	2.711878	3.118651	3.584036	4.116136	5.418388
30	2.097568	2.427262	2.806794	3.243398	3.745318	4.321942	5.743491
31	2.150007	2.500080	2.905031	3.373133	3.913857	4.538039	6.088101
32	2.203757	2.575083	3.006708	3.508059	4.089981	4.764941	6.453387
33	2.258851	2.652335	3.111942	3.648381	4.274030	5.003189	6.840590
34	2.315322	2.813862	3.333590	3.946089	4.477378	5.791816	8.147252
35	2.373205	2.898278	3.450266	4.103933	4.877378	6.081407	8.636087
36	2.432535	2.985227	3.571025	4.268090	5.096860	6.385477	9.154252
37	2.493349	3.074783	3.696011	4.438813	5.326219	6.704751	9.703507
38	2.555682	3.167027	3.825372	4.616366	5.565899	7.039989	10.285718
39	2.619574	3.262038	3.959260	4.801021	5.816365	7.391988	10.902861
40	2.685064	3.359899	4.097834	4.993061	6.078101	7.761588	11.557033
41	2.752190	3.460696	4.241258	5.192784	6.351615	7.761588	12.250455
42	2.820995	3.460696	4.389702	5.400495	6.637438	8.149667	12.985482
43	2.891520	3.564517	4.543342	5.616515	6.936123	8.557150	13.764611
44	2.963808	3.671452	4.702359	5.841176	7.248248	8.985008	14.590487
45	3.037903	3.781596	4.866941	6.074823	7.574420	9.434258	15.465917
46	3.113851	3.895044	5.037284	6.317816	7.915268	9.905971	16.393872
47	3.191697	4.011895	5.213589	6.570528	8.271456	10.401270	17.377504
48	3.271490	4.132252	5.213589	6.833349	8.643671	10.921333	18.420154
49	3.353277	4.256219	5.396065	7.106683	9.032636	11.467400	19.525364
50	3.437109	4.383906	5.584927	7.390951	9.439105	12.040770	20.696885
51	3.523036	4.515423	5.780399	7.686589	9.863865	12.642808	21.938698
52	3.611112	4.650886	5.982713	7.686589	10.307739	13.274949	23.255020
53	3.701390	4.790412	6.192108	7.994052	10.771587	13.938696	24.650322
54	3.793925	4.934125	6.408832	8.313814	11.256308	14.636631	26.129341
55	3.888773	5.082149	6.633141	8.646367	11.762842	15.367412	27.697101
56	3.985992	5.234613	6.865301	8.992222	12.292170	16.135783	29.358927
57	4.085642	5.391651	7.105587	9.351910	12.845318	16.942572	31.120463
58	4.187783	5.553401	7.354282	9.725987	13.423357	17.789701	32.987691
59	4.292478	5.720003	7.611682	10.115026	14.027408	18.679186	
60	4.399790	5.891603	7.878091	10.519637			

TABLE VIII.

The present value of L.1 due at the end of any Number of Years.

Years.	2½ per cent.	3 per cent.	3½ per cent.	4 per cent.	4½ per cent.	5 per cent.	5½ per cent.	6 per cent.
1	.975610	.970874	.966184	.961538	.956938	.952381	.947867	.943396
2	.951814	.942596	.933511	.924556	.915730	.907029	.898452	.889996
3	.928599	.915142	.901943	.888996	.876297	.863838	.851614	.839619
4	.905951	.888487	.871442	.854804	.838561	.822702	.807217	.792094
5	.883854	.862609	.841973	.821927	.802451	.783526	.765134	.747258
6	.862297	.837484	.813501	.790315	.767896	.746215	.725246	.704961
7	.841265	.813092	.785991	.759918	.734828	.710681	.687437	.665057
8	.820747	.789409	.759412	.730690	.703185	.676839	.651599	.627412
9	.800728	.766417	.733731	.702587	.672904	.644609	.617629	.591898
10	.781198	.744094	.708919	.675564	.643928	.613913	.585431	.558395
11	.762145	.722421	.684946	.649581	.616199	.584679	.554911	.526788
12	.743556	.701380	.661783	.624597	.589664	.556837	.525982	.496969
13	.725420	.680951	.639404	.600574	.564272	.530321	.498539	.468839
14	.707727	.661118	.617782	.577475	.539973	.505068	.472501	.442301
15	.690466	.641862	.596891	.555264	.516720	.481017	.447765	.417265
16	.673625	.623167	.576706	.533908	.494469	.458112	.424246	.393646
17	.657195	.605016	.557204	.513373	.473176	.436297	.401857	.371364
18	.641166	.587395	.538361	.493628	.452800	.415521	.380514	.350344
19	.625528	.570286	.520156	.474642	.433302	.395734	.360133	.330513
20	.610271	.553676	.502566	.456387	.414643	.376889	.340634	.311805
21	.595386	.537549	.485571	.438834	.396787	.358942	.321940	.294155
22	.580865	.521892	.469151	.421955	.379701	.341850	.303974	.277505
23	.566697	.506692	.453286	.405726	.363350	.325571	.286662	.261797
24	.552875	.491934	.437957	.390121	.347703	.310068	.269933	.246979
25	.539391	.477606	.423147	.375117	.332731	.295303	.253719	.232999
26	.526235	.463695	.408838	.360689	.318402	.281241	.237953	.219810
27	.513400	.450189	.395012	.346817	.304691	.267848	.222571	.207368
28	.500878	.437077	.381654	.333477	.291571	.255094	.208511	.195630
29	.488661	.424346	.368748	.320651	.279015	.242946	.194714	.184557
30	.476743	.411987	.356278	.308319	.267000	.231377	.182124	.174110
31	.465115	.399987	.344230	.296460	.255502	.220359	.170687	.164255
32	.453771	.388337	.332590	.285058	.244500	.209866	.159954	.154957
33	.442703	.377026	.321343	.274094	.233971	.199873	.149873	.146186
34	.431905	.366045	.310476	.263552	.223896	.190355	.140397	.137912
35	.421371	.355383	.299977	.253415	.214254	.181290	.131485	.130105
36	.411094	.345032	.289833	.243669	.205028	.172657	.123100	.122741
37	.401067	.334983	.280032	.234297	.196199	.164436	.115703	.115793
38	.391285	.325226	.270562	.225285	.187750	.156605	.109239	.109239
39	.381741	.315754	.261413	.216621	.179665	.149148	.103056	.103056
40	.372431	.306557	.252572	.208289	.171929	.142046	.097222	.097222
41	.363347	.297628	.244031	.200278	.164525	.135282	.091719	.091719
42	.354485	.288959	.235779	.192575	.157440	.128840	.086527	.086527
43	.345839	.280543	.227806	.185168	.150661	.122704	.081630	.081630
44	.337404	.272372	.220102	.178046	.144173	.116861	.077009	.077009
45	.329174	.264439	.212659	.171198	.137964	.111297	.072650	.072650
46	.321146	.256737	.205468	.164614	.132023	.105997	.068538	.068538
47	.313313	.249259	.198520	.158283	.126338	.100949	.064658	.064658
48	.305671	.241999	.191806	.152195	.120898	.096142	.060998	.060998
49	.298216	.234950	.185320	.146341	.115692	.091564	.057546	.057546
50	.290942	.228107	.179053	.140713	.110710	.087204	.054288	.054288
51	.283846	.221463	.172998	.135301	.105942	.083051	.051215	.051215
52	.276923	.215013	.167148	.130097	.101380	.079096	.048316	.048316
53	.270169	.208750	.161496	.125093	.097014	.075330	.045582	.045582
54	.263579	.202670	.156035	.120282	.092837	.071743	.043001	.043001
55	.257151	.196767	.150758	.115656	.088839	.068326	.040567	.040567
56	.250879	.191036	.145660	.111207	.085013	.065073	.038271	.038271
57	.244760	.185472	.140734	.106930	.081353	.061974	.036105	.036105
58	.238790	.180070	.135975	.102817	.077849	.059023	.034061	.034061
59	.232966	.174825	.131377	.098863	.074497	.056212	.032133	.032133
60	.227284	.169733	.126934	.095060	.071289	.053536	.030314	.030314

TABLE IX.

The amount of L.1 per annum in any number of Years.

Years.	2½ per cent.	3 per cent.	3½ per cent.	4 per cent.	4½ per cent.	5 per cent.	6 per cent.
1	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
2	2.025000	2.030000	2.035000	2.040000	2.045000	2.050000	2.060000
3	3.075625	3.090900	3.106225	3.121600	3.137025	3.152500	3.183600
4	4.152516	4.183627	4.214943	4.246464	4.278191	4.310125	4.374616
5	5.256329	5.309136	5.362466	5.416323	5.470710	5.525631	5.637093
6	6.387737	6.468410	6.550152	6.632975	6.716892	6.801913	6.975319
7	7.547430	7.662462	7.779408	7.898294	8.019152	8.142008	8.393838
8	8.736116	8.892336	9.051687	9.214226	9.380014	9.549109	9.897468
9	9.954519	10.159106	10.368496	10.582795	10.802114	11.026564	11.491316
10	11.203382	11.463879	11.731393	12.006107	12.288209	12.577893	13.180795
11	12.483466	12.807796	13.141992	13.486351	13.841179	14.206787	14.971643
12	13.795553	14.192030	14.601962	15.025805	15.464032	15.917127	16.869941
13	15.140442	15.617790	16.113030	16.626838	17.159913	17.712983	18.882138
14	16.518953	17.086324	17.676986	18.291911	18.932109	19.598632	21.015066
15	17.931927	18.598914	19.295681	20.023588	20.784054	21.578564	23.275970
16	19.380225	20.156881	20.971030	21.824531	22.719337	23.657492	25.672528
17	20.864730	21.761588	22.705016	23.697512	24.741707	25.840366	28.212880
18	22.386349	23.414435	24.499691	25.645413	26.855084	28.132385	30.905653
19	23.946007	25.116868	26.357181	27.671229	29.063562	30.539004	33.760092
20	25.544658	26.870374	28.279682	29.778079	31.371423	33.065954	36.785591
21	27.183274	28.676486	30.269471	31.969202	33.783137	35.719252	39.992727
22	28.862856	30.536780	32.328902	34.247970	36.303378	38.505214	43.392290
23	30.584427	32.452884	34.460414	36.617889	38.937030	41.430475	46.995828
24	32.349038	34.426470	36.666528	39.082604	41.689196	44.501999	50.815577
25	34.157764	36.459264	38.949857	41.645908	44.565210	47.727099	54.864512
26	36.011708	38.553042	41.313102	44.311745	47.570645	51.113454	59.156383
27	37.912001	40.709634	43.759060	47.084214	50.711324	54.669126	63.705766
28	39.859801	42.930923	46.290627	49.967383	53.993333	58.402583	68.528112
29	41.856296	45.218850	48.910799	52.966286	57.423033	62.322712	73.639798
30	43.902703	47.575416	51.622677	56.084938	61.007070	66.438848	79.058186
31	46.000271	50.002678	54.429471	59.328335	64.752388	70.760790	84.801677
32	48.150278	52.502759	57.334502	62.701469	68.666245	75.298829	90.889778
33	50.354034	55.077841	60.341210	66.209527	72.756226	80.063771	97.343165
34	52.612885	57.730177	63.453152	69.857909	77.030256	85.066959	104.183755
35	54.928207	60.462082	66.674013	73.652225	81.496618	90.320307	111.434780
36	57.301413	63.275944	70.007603	77.598314	86.163966	95.836323	119.120867
37	59.733948	66.174223	73.457869	81.702246	91.041344	101.628139	127.268119
38	62.227297	69.159449	77.028895	85.970336	96.138205	107.709546	135.904206
39	64.782979	72.234233	80.724906	90.409150	101.464424	114.095023	145.058458
40	67.402554	75.401260	84.550278	95.025516	107.030323	120.799774	154.761966
41	70.087617	78.663298	88.509537	99.826536	112.846688	127.839763	165.047684
42	72.839808	82.023196	92.607371	104.819598	118.924789	135.231751	175.950545
43	75.660803	85.483892	96.848629	110.012382	125.276404	142.993339	187.507577
44	78.552323	89.048409	101.238331	115.412877	131.913842	151.143006	199.758032
45	81.516131	92.719861	105.781673	121.029392	138.849965	159.700156	212.743514
46	84.554034	96.501457	110.484031	126.870568	146.098214	168.685164	226.508125
47	87.667885	100.396501	115.350973	132.945390	153.672633	178.119422	241.098612
48	90.859582	104.408396	120.388257	139.263206	161.587902	188.025393	256.564529
49	94.131072	108.540648	125.601846	145.833734	169.859357	198.426663	272.958401
50	97.484349	112.796867	130.997910	152.667084	178.503028	209.347996	290.335905
51	100.921458	117.180773	136.582837	159.773767	187.535665	220.815395	308.756059
52	104.444494	121.696197	142.363236	167.164718	196.974769	232.856165	328.281422
53	108.055606	126.347082	148.345950	174.851306	206.838634	245.498974	348.978308
54	111.756996	131.137495	154.538058	182.845359	217.146378	258.773922	370.917006
55	115.550921	136.071620	160.946890	191.159173	227.917959	272.712618	394.172027
56	119.439694	141.163768	167.586031	199.805540	239.174263	287.348249	418.822348
57	123.425687	146.388581	174.445332	208.797762	250.937110	302.715562	444.951689
58	127.511329	151.780039	181.550919	218.149672	263.229280	318.851445	472.648790
59	131.699112	157.333434	188.905201	227.875659	276.074597	335.794017	502.007718
60	135.991590	163.053437	196.516383	237.990685	289.497954	353.583718	533.128181

TABLE X.

The present value of L.1 per annum for any Number of Years.

Years.	2½ per cent.	3 per cent.	3½ per cent.	4 per cent.	4½ per cent.	5 per cent.	6 per cent.
1	.976610	.970874	.966184	.961538	.956938	.952381	.943396
2	1.927424	1.913470	1.899694	1.886095	1.872668	1.859410	1.833393
3	2.856024	2.828611	2.801637	2.775091	2.748964	2.723248	2.673012
4	3.761974	3.717098	3.673079	3.629895	3.587526	3.545951	3.465106
5	4.645828	4.579707	4.515052	4.451822	4.389977	4.329477	4.212364
6	5.508125	5.417191	5.328553	5.242137	5.157872	5.075692	4.917324
7	6.349391	6.230283	6.114544	6.002055	5.892701	5.786373	5.582381
8	7.170137	7.019692	6.873956	6.732745	6.595886	6.463213	6.209794
9	7.970866	7.786109	7.607687	7.435332	7.268790	7.107822	6.801692
10	8.752064	8.530203	8.316605	8.110896	7.912718	7.721735	7.360087
11	9.514209	9.252624	9.001551	8.760477	8.528917	8.306414	7.886875
12	10.257765	9.954004	9.663334	9.385074	9.118581	8.863252	8.383844
13	10.983185	10.634955	10.302738	9.985648	9.682852	9.393573	8.852683
14	11.690912	11.296073	10.920520	10.563123	10.222825	9.898641	9.294984
15	12.381378	11.937935	11.517411	11.118387	10.739546	10.379658	9.712249
16	13.055003	12.561102	12.094117	11.652296	11.234015	10.837770	10.105895
17	13.712198	13.166118	12.651321	12.165669	11.707191	11.274066	10.477260
18	14.353364	13.753513	13.189682	12.659297	12.159992	11.689587	10.827603
19	14.978891	14.323799	13.709837	13.133939	12.593294	12.085321	11.158116
20	15.589162	14.877475	14.212403	13.590326	13.007936	12.462210	11.469921
21	16.184549	15.415024	14.697974	14.029160	13.404724	12.821153	11.764077
22	16.765413	15.936917	15.167125	14.451115	13.784425	13.163003	12.041582
23	17.332110	16.443608	15.620410	14.856842	14.147775	13.488574	12.303379
24	17.884986	16.935542	16.058368	15.246963	14.495478	13.798642	12.550358
25	18.424376	17.413148	16.481515	15.622080	14.828209	14.093945	12.783356
26	18.950611	17.876842	16.890352	15.982769	15.146611	14.375185	13.003166
27	19.464011	18.327031	17.285365	16.329586	15.451303	14.643034	13.210534
28	19.964889	18.764108	17.667019	16.663063	15.742874	14.898127	13.406164
29	20.453550	19.188455	18.035767	16.983715	16.021889	15.141074	13.590721
30	20.930293	19.600441	18.392045	17.292033	16.288889	15.372451	13.764831
31	21.395407	20.000428	18.736276	17.588494	16.544391	15.592811	13.929086
32	21.849178	20.388766	19.068865	17.873552	16.788891	15.802677	14.084043
33	22.291881	20.765792	19.390208	18.147646	17.023862	16.002549	14.230230
34	22.723786	21.131837	19.700684	18.411198	17.246758	16.192904	14.368141
35	23.145157	21.487220	20.000661	18.664613	17.461012	16.374194	14.498246
36	23.556251	21.832252	20.290494	18.908282	17.666041	16.546852	14.620987
37	23.957318	22.167235	20.570525	19.142579	17.862240	16.711287	14.736780
38	24.348603	22.492462	20.841087	19.367864	18.049990	16.867893	14.846019
39	24.730344	22.808215	21.102500	19.584485	18.229656	17.017041	14.949075
40	25.102775	23.114772	21.355072	19.792774	18.401584	17.159086	15.046297
41	25.468122	23.412400	21.599104	19.993052	18.566109	17.294368	15.138016
42	25.829607	23.701359	21.834883	20.185627	18.723550	17.423208	15.224543
43	26.185446	23.981902	22.062689	20.370795	18.874210	17.545912	15.306173
44	26.536849	24.254274	22.282791	20.548841	19.018383	17.662773	15.383182
45	26.883024	24.518713	22.495450	20.720040	19.156347	17.774070	15.455832
46	27.154170	24.775449	22.700918	20.884654	19.288371	17.880067	15.524370
47	27.467483	25.024708	22.899438	21.042936	19.414709	17.981016	15.589028
48	27.773154	25.266707	23.091244	21.195131	19.535607	18.077158	15.650027
49	28.071369	25.501657	23.276564	21.341472	19.651298	18.168722	15.707572
50	28.362312	25.729764	23.455618	21.482185	19.762008	18.255925	15.761861
51	28.646158	25.951227	23.628616	21.617485	19.867950	18.338977	15.813076
52	28.923081	26.166240	23.795765	21.747582	19.969330	18.418073	15.861393
53	29.193249	26.374990	23.957260	21.872675	20.066345	18.493403	15.906974
54	29.456829	26.577660	24.113295	21.992967	20.159181	18.565148	15.949976
55	29.713979	26.774428	24.264053	22.108612	20.248021	18.633472	15.990543
56	29.964858	26.965464	24.409713	22.219819	20.333034	18.698545	16.028814
57	30.209617	27.150936	24.550448	22.326749	20.414387	18.760519	16.064919
58	30.448407	27.331005	24.686423	22.429567	20.492236	18.819542	16.098980
59	30.681373	27.505831	24.817800	22.528430	20.566733	18.875754	16.131113
60	30.908656	27.675564	24.944734	22.623490	20.638022	18.929290	16.161428

D

INTEREST TABLE.

RULE.—Multiply the amount by the number of days, the product will, by means of the following table, give the interest at the several rates. For products below 100 see foot of table.

EXAMPLE.—Required interest at 4 and 6 per cent. on Rs. 1,434 for 7 days :—

1,434 × 7 = 10,038

	at 4%	at 6%
10,000 =	Re. A. P. 1 1 6·4	Re. A. P. = 1 10 3·6
38 =	·8	= 1·2
	Re. 1 1 7	Re. 1 10 5

Products.	4%				4½%				5%				5½%				6%			
	Rs.	A.	P.	D.	Rs.	A.	P.	D.	Rs.	A.	P.	D.	Rs.	A.	P.	D.	Rs.	A.	P.	D.
100	...	...	2	1	...	...	2	4	...	...	2	6	...	...	2	9	...	...	3	1
200	...	...	4	2	...	...	4	7	...	...	5	1	...	...	5	3	...	...	6	3
300	...	...	6	3	...	...	7	1	...	...	7	5	...	...	8	0	...	...	9	5
400	...	...	8	4	...	...	9	5	...	...	10	0	...	...	10	6	...	...	12	7
500	...	...	10	5	...	...	11	8	...	1	1	2	...	...	11	9	...	1	1	8
600	...	1	...	6	...	1	2	2	...	1	3	8	...	1	4	0	...	1	3	10
700	...	1	2	7	...	1	4	6	...	1	6	4	...	1	7	3	...	1	6	9
800	...	1	4	8	...	1	6	9	...	1	9	...	...	1	9	6	...	1	10	1
900	...	1	6	9	...	1	9	3	...	1	11	7	...	2	0	9	...	2	1	4
1,000	...	1	9	...	...	1	11	7	...	2	2	3	...	2	4	0	...	2	5	7
2,000	...	3	6	1	...	3	11	3	...	4	4	6	...	4	8	1	...	5	1	2
3,000	...	5	3	1	...	5	11	...	...	6	6	9	...	7	0	2	...	7	8	10
4,000	...	7	...	2	...	7	10	7	...	8	9	0	...	9	0	3	...	10	4	7
5,000	...	8	9	2	...	9	10	4	...	10	11	5	...	11	0	4	...	12	11	5
6,000	...	10	6	3	...	11	10	...	...	13	1	8	...	14	5	6	...	15	9	4
7,000	...	12	3	3	...	13	9	7	...	15	4	1	...	16	10	5	1	2	4	9
8,000	...	14	...	3	...	15	9	4	1	1	6	7	1	3	8	5	1	3	6	1
9,000	...	15	9	4	1	1	9	...	1	3	8	7	1	5	8	4	1	5	...	5
10,000	1	1	6	4	1	3	8	7	1	5	11	...	1	8	1	3	1	7	3	1
20,000	2	3	...	8	2	7	5	4	2	11	10	...	3	...	2	6	3	4	7	2
30,000	3	4	7	2	3	11	2	1	4	1	9	...	4	8	3	9	4	14	10	3
40,000	4	6	1	7	4	14	10	8	5	7	8	1	6	...	5	3	6	9	2	5
50,000	5	7	8	1	6	2	7	6	6	13	7	1	7	8	6	9	8	3	6	1
60,000	6	9	2	5	7	6	4	3	8	3	6	1	9	...	7	9	9	13	9	1
70,000	7	10	8	9	8	10	1	...	9	9	5	1	10	8	9	2	11	8	1	3
80,000	8	12	3	3	9	13	9	7	10	15	4	1	12	...	10	5	13	2	4	5
90,000	9	13	9	7	11	1	6	4	12	5	3	1	13	8	11	1	14	12	8	6
100,000	10	15	4	1	12	5	3	1	13	11	2	1	15	1	1	8	16	7	...	8
200,000	21	14	8	2	24	10	6	2	27	6	4	3	30	2	3	5	32	14	...	5
300,000	32	14	...	3	36	15	9	4	41	1	6	4	45	3	5	...	49	5	...	1
400,000	43	13	4	4	49	5	...	5	54	12	8	5	60	4	4	6	65	12	...	7
500,000	54	12	8	5	61	10	3	6	68	7	10	7	75	5	5	8	82	3	...	8
600,000	65	12	...	7	73	15	6	7	82	3	...	8	90	6	6	9	98	10	1	...
700,000	76	11	4	8	86	4	9	9	95	14	3	...	105	7	8	1	115	1	1	2
800,000	87	10	8	9	98	10	1	...	109	9	5	1	120	8	9	2	131	8	1	3
900,000	98	10	1	...	110	15	4	1	123	4	7	2	135	9	10	3	147	15	1	5
1,000,000	109	9	5	1	123	4	7	2	136	15	9	4	150	10	11	5	164	6	1	6
2,000,000	219	2	10	2	246	9	2	5	273	15	6	7	301	5	11	...	328	12	3	3
3,000,000	328	12	3	3	369	13	9	7	410	15	4	1	452	...	10	5	493	2	4	9
4,000,000	438	5	8	4	493	2	4	9	547	15	1	5	602	11	10	...	657	8	6	6
5,000,000	547	15	1	5	616	7	...	2	684	14	10	8	753	6	9	5	821	14	8	2
6,000,000	657	8	6	6	739	11	7	4	821	14	8	2	904	1	9	...	986	4	9	9
7,000,000	767	1	11	7	863	...	2	6	958	14	5	6	1,054	12	8	6	1,150	10	11	5
8,000,000	876	11	4	8	986	4	9	9	1,095	14	3	...	1,205	7	8	1	1,315	1	1	2
9,000,000	986	4	9	9	1,109	9	5	1	1,232	14	...	3	1,356	2	7	6	1,479	7	2	8
10,000,000	1,095	14	3	...	1,232	14	...	3	1,369	13	9	7	1,506	13	7	1	1,643	13	4	4

Interest in Pies and Decimals on Products less than Rs. 100.

4%				4½%				5%				5½%				6%			
Prodt.	P.	Prodt.	P.	Prodt.	P.	Prodt.	P.	Prodt.	P.	Prodt.	P.	Prodt.	P.	Prodt.	P.	Prodt.	P.	Prodt.	P.
5	·1	52	1·1	4	·1	55	1·3	4	·1	53	1·4	3	·1	53	1·5	3	·1	51	1·6
10	·2	57	1·2	8	·2	59	1·4	8	·2	57	1·5	7	·2	55	1·6	6	·2	54	1·7
14	·3	62	1·3	13	·3	63	1·5	11	·3	61	1·6	10	·3	59	1·7	10	·3	57	1·8
19	·4	67	1·4	17	·4	68	1·6	15	·4	65	1·7	14	·4	62	1·8	13	·4	60	1·9
24	·5	71	1·5	21	·5	72	1·7	19	·5	68	1·8	17	·5	66	1·9	16	·5	63	2·0
29	·6	76	1·6	25	·6	76	1·8	23	·6	72	1·9	21	·6	69	2·0	19	·6	67	2·1
33	·7	81	1·7	30	·7	80	1·9	27	·7	76	2·0	24	·7	73	2·1	22	·7	70	2·2
38	·8	86	1·8	34	·8	84	2·0	30	·8	80	2·1	28	·8	76	2·2	25	·8	73	2·3
43	·9	90	1·9	38	·9	89	2·1	34	·9	84	2·2	31	·9	79	2·3	29	·9	76	2·4
48	1·0	95	2·0	42	1·0	93	2·2	38	1·0	87	2·3	35	1·0	83	2·4	32	1·0	79	2·5
				46	1·1	97	2·3	42	1·1	91	2·4	38	1·1	86	2·5	35	1·1	82	2·6
				51	1·2			46	1·2	95	2·5	41	1·2	90	2·6	38	1·2	86	2·7
								49	1·3			45	1·3	93	2·7	41	1·3	89	2·8
												48	1·4	97	2·8	44	1·4	92	2·9
																48	1·5	95	3·0

O. S. G. P.—N., 8149 C. G.—13-2-71.—2,000.

13

If r represent the interest at a given rate on an unit of account for one year, then a capital sum A improved at that rate for n years would amount to—

$A(1+nr)$ at simple interest.

$A(1+r)^n$ at compound interest.

An annuity A so improved would amount to—

$$A\frac{(1+r)^n-1}{r}$$

The present value of a deferred payment is that sum which, improved at the given rate, would, by the expiry of the given time, cover the given sum.

If interest be calculated half-yearly, the rate of interest should be halved and the number of years doubled; similarly, if an annuity be payable half-yearly, its amount also should be halved.

For ready reference the logarithms of the several values of $1+r$ at ordinary rates of interest are given below:—

Rate per cent.	Logarithms.	Rate per cent	Logarithms.
$1\frac{1}{8}$	·0064660422	4	·0170333393
$1\frac{1}{4}$	·0075344179	$4\frac{1}{8}$	·0180769636
$1\frac{3}{8}$	·0086001718	$4\frac{1}{4}$	·0191162904
2	·0096633167	$4\frac{3}{8}$	·0201513016
$2\frac{1}{4}$	·0107238654	5	·0211892991
$2\frac{1}{2}$	·0117818305	$5\frac{1}{4}$	·0222221045
$2\frac{3}{4}$	·0128372247	$5\frac{1}{2}$	·0232524596
3	·0138900603	$5\frac{3}{4}$	·0242803760
$3\frac{1}{4}$	·0149403498	6	·0253058653
$3\frac{1}{2}$	·0159881054		

1875.

Financial Department
(Accounts Public)

From
The Comptroller General

dated 15. } Rec'd 25. } January/75.

Circular No: 495.
No 1271.

No 139

Forwards copy of a circular to Accountants General respecting loans made by Government

26 January 75 No 140

Copy furnished to the Board of Revenue.

Copy forwarded to the Secretary to the Government of Madras for information.

Deputy Comptroller General.

No 1251

Dept
3/2/75

To the Board of Revenue
5/2/75

F. P.
140
26-1-75
191-192

Fin Proc 26 January 1875
No 191

Govt. of {187} Madras.

Encl

17-8-88

G. O., 26 Jany 1875, No. 140

Nos. 191-2

Loans. Copy of the Comptr's Genl's Circular from Dy Commrs Taking for Compensating interest on Govt. loans to Local Corporations, for? furnished to the Bd's Offr