

BUSINESS MATH HANDBOOK

A Quick Reference Guide
To Accompany

PRACTICAL BUSINESS MATH PROCEDURES

Third Edition

Jeffrey Slater

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EXACT DAYS-IN-A-YEAR CALENDAR (EXCLUDING LEAP YEAR)

Day of month	31 Jan.	28 Feb.	31 Mar.	30 Apr.	31 May	30 June	31 July	31 Aug.	30 Sept.	31 Oct.	30 Nov.	31 Dec.
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345
12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29	—	88	119	149	180	210	241	272	302	333	363
30	30	—	89	120	150	181	211	242	273	303	334	364
31	31	—	90	—	151	—	212	243	—	304	—	365

Note: If a leap year, add 1 day to table if February 29 falls between the two dates.

REFERENCE TABLE OF MEASURES

Measures of length

12 inches = 1 foot	10 millimeters = 1 centimeter
3 feet = 1 yard	10 centimeters = 1 decimeter
1,760 yards = 1 mile	10 decimeters = 1 meter
5,280 feet = 1 mile	1,000 meters = 1 kilometer
	1 inch = 2.54 centimeters

Measures of weight

16 ounces = 1 pound	1,000 milligrams = 1 gram
2,000 pounds = 1 ton	100 centigrams = 1 gram
	1,000 grams = 1 kilogram
	2.2 pounds are about 1 kilogram

Measures of volume (capacity)

8 fluid ounces = 1 cup	1 liter = 1 cubic decimeter
2 cups = 1 pint	1,000 milliliters (cubic centimeters) = 1 liter
2 pints = 1 quart	1,000 liters = 1 kiloliter (cubic meter)
4 quarts = 1 gallon	

Surface measures

144 square inches = 1 square foot	100 square centimeters = 1 square decimeter
9 square feet = 1 square yard	100 square decimeters = 1 square meter
43,560 square feet = 1 acre	
640 acres = 1 square mile	

Time

60 seconds = 1 minute	7 days = 1 week	10 years = 1 decade
60 minutes = 1 hour	365 days = 1 year	100 years = 1 century
24 hours = 1 day	366 days = 1 leap year	1,000 years = 1 millenium

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PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0050	0.9950	0.9950	1.0000	1.0000
2	1.0100	0.9901	1.9851	2.0050	0.4988
3	1.0151	0.9851	2.9702	3.0150	0.3317
4	1.0202	0.9802	3.9505	4.0301	0.2481
5	1.0253	0.9754	4.9259	5.0503	0.1980
6	1.0304	0.9705	5.8964	6.0755	0.1646
7	1.0355	0.9657	6.8621	7.1059	0.1407
8	1.0407	0.9609	7.8230	8.1414	0.1228
9	1.0459	0.9561	8.7791	9.1821	0.1089
10	1.0511	0.9513	9.7304	10.2280	0.0978
11	1.0564	0.9466	10.6770	11.2792	0.0887
12	1.0617	0.9419	11.6189	12.3356	0.0811
13	1.0670	0.9372	12.5562	13.3973	0.0746
14	1.0723	0.9326	13.4887	14.4643	0.0691
15	1.0777	0.9279	14.4166	15.5365	0.0644
16	1.0831	0.9233	15.3399	16.6142	0.0602
17	1.0885	0.9187	16.2586	17.6973	0.0565
18	1.0939	0.9141	17.1728	18.7858	0.0532
19	1.0994	0.9096	18.0824	19.8797	0.0503
20	1.1049	0.9051	18.9874	20.9791	0.0477
21	1.1104	0.9006	19.8880	22.0840	0.0453
22	1.1160	0.8961	20.7841	23.1945	0.0431
23	1.1216	0.8916	21.6757	24.3104	0.0411
24	1.1272	0.8872	22.5629	25.4320	0.0393
25	1.1328	0.8828	23.4457	26.5591	0.0377
26	1.1385	0.8784	24.3240	27.6919	0.0361
27	1.1442	0.8740	25.1980	28.8304	0.0347
28	1.1499	0.8697	26.0677	29.9746	0.0334
29	1.1556	0.8653	26.9331	31.1245	0.0321
30	1.1614	0.8610	27.7941	32.2801	0.0310
31	1.1672	0.8567	28.6508	33.4414	0.0299
32	1.1730	0.8525	29.5033	34.6087	0.0289
33	1.1789	0.8482	30.3515	35.7817	0.0279
34	1.1848	0.8440	31.1956	36.9606	0.0271
35	1.1907	0.8398	32.0354	38.1454	0.0262
36	1.1967	0.8356	32.8710	39.3361	0.0254
37	1.2027	0.8315	33.7025	40.5328	0.0247
38	1.2087	0.8274	34.5299	41.7355	0.0240
39	1.2147	0.8232	35.3531	42.9441	0.0233
40	1.2208	0.8191	36.1723	44.1589	0.0226
41	1.2269	0.8151	36.9873	45.3797	0.0220
42	1.2330	0.8110	37.7983	46.6066	0.0215
43	1.2392	0.8070	38.6053	47.8396	0.0209
44	1.2454	0.8030	39.4083	49.0788	0.0204
45	1.2516	0.7990	40.2072	50.3242	0.0199
46	1.2579	0.7950	41.0022	51.5759	0.0194
47	1.2642	0.7910	41.7932	52.8337	0.0189
48	1.2705	0.7871	42.5804	54.0979	0.0185
49	1.2768	0.7832	43.3635	55.3684	0.0181
50	1.2832	0.7793	44.1428	56.6452	0.0177

1%

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0100	0.9901	0.9901	1.0000	1.0000
2	1.0201	0.9803	1.9704	2.0100	0.4975
3	1.0303	0.9706	2.9410	3.0301	0.3300
4	1.0406	0.9610	3.9020	4.0604	0.2463
5	1.0510	0.9515	4.8534	5.1010	0.1960
6	1.0615	0.9420	5.7955	6.1520	0.1625
7	1.0721	0.9327	6.7282	7.2135	0.1386
8	1.0829	0.9235	7.6517	8.2857	0.1207
9	1.0937	0.9143	8.5660	9.3685	0.1067
10	1.1046	0.9053	9.4713	10.4622	0.0956
11	1.1157	0.8963	10.3676	11.5668	0.0865
12	1.1268	0.8874	11.2551	12.6825	0.0788
13	1.1381	0.8787	12.1337	13.8093	0.0724
14	1.1495	0.8700	13.0037	14.9474	0.0669
15	1.1610	0.8613	13.8650	16.0969	0.0621
16	1.1726	0.8528	14.7179	17.2579	0.0579
17	1.1843	0.8444	15.5622	18.4304	0.0543
18	1.1961	0.8360	16.3983	19.6147	0.0510
19	1.2081	0.8277	17.2260	20.8109	0.0481
20	1.2202	0.8195	18.0455	22.0190	0.0454
21	1.2324	0.8114	18.8570	23.2392	0.0430
22	1.2447	0.8034	19.6604	24.4716	0.0409
23	1.2572	0.7954	20.4558	25.7163	0.0389
24	1.2697	0.7876	21.2434	26.9735	0.0371
25	1.2824	0.7798	22.0231	28.2432	0.0354
26	1.2953	0.7720	22.7952	29.5256	0.0339
27	1.3082	0.7644	23.5596	30.8209	0.0324
28	1.3213	0.7568	24.3164	32.1291	0.0311
29	1.3345	0.7493	25.0658	33.4504	0.0299
30	1.3478	0.7419	25.8077	34.7849	0.0287
31	1.3613	0.7346	26.5423	36.1327	0.0277
32	1.3749	0.7273	27.2696	37.4941	0.0267
33	1.3887	0.7201	27.9897	38.8690	0.0257
34	1.4026	0.7130	28.7027	40.2577	0.0248
35	1.4166	0.7059	29.4086	41.6603	0.0240
36	1.4308	0.6989	30.1075	43.0769	0.0232
37	1.4451	0.6920	30.7995	44.5076	0.0225
38	1.4595	0.6852	31.4847	45.9527	0.0218
39	1.4741	0.6784	32.1630	47.4122	0.0211
40	1.4889	0.6717	32.8347	48.8864	0.0205
41	1.5038	0.6650	33.4997	50.3752	0.0199
42	1.5188	0.6584	34.1581	51.8790	0.0193
43	1.5340	0.6519	34.8100	53.3978	0.0187
44	1.5493	0.6454	35.4554	54.9317	0.0182
45	1.5648	0.6391	36.0945	56.4811	0.0177
46	1.5805	0.6327	36.7272	58.0459	0.0172
47	1.5963	0.6265	37.3537	59.6263	0.0168
48	1.6122	0.6203	37.9739	61.2226	0.0163
49	1.6283	0.6141	38.5881	62.8348	0.0159
50	1.6446	0.6080	39.1961	64.4632	0.0155

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0150	0.9852	0.9852	1.0000	1.0000
2	1.0302	0.9707	1.9559	2.0150	0.4963
3	1.0457	0.9563	2.9122	3.0452	0.3284
4	1.0614	0.9422	3.8544	4.0909	0.2444
5	1.0773	0.9283	4.7826	5.1522	0.1941
6	1.0934	0.9145	5.6972	6.2295	0.1605
7	1.1098	0.9010	6.5982	7.3230	0.1366
8	1.1265	0.8877	7.4859	8.4328	0.1186
9	1.1434	0.8746	8.3605	9.5593	0.1046
10	1.1605	0.8617	9.2222	10.7027	0.0934
11	1.1780	0.8489	10.0711	11.8632	0.0843
12	1.1960	0.8364	10.9075	13.0412	0.0767
13	1.2135	0.8240	11.7315	14.2368	0.0702
14	1.2318	0.8119	12.5433	15.4503	0.0647
15	1.2502	0.7999	13.3432	16.6821	0.0599
16	1.2690	0.7880	14.1312	17.9323	0.0558
17	1.2880	0.7764	14.9076	19.2013	0.0521
18	1.3073	0.7649	15.6725	20.4893	0.0488
19	1.3270	0.7536	16.4261	21.7966	0.0459
20	1.3469	0.7425	17.1686	23.1236	0.0432
21	1.3671	0.7315	17.9001	24.4704	0.0409
22	1.3876	0.7207	18.6208	25.8375	0.0387
23	1.4084	0.7100	19.3308	27.2250	0.0367
24	1.4295	0.6995	20.0304	28.6334	0.0349
25	1.4510	0.6892	20.7196	30.0629	0.0333
26	1.4727	0.6790	21.3986	31.5138	0.0317
27	1.4948	0.6690	22.0676	32.9866	0.0303
28	1.5172	0.6591	22.7267	34.4813	0.0290
29	1.5400	0.6494	23.3760	35.9986	0.0278
30	1.5631	0.6398	24.0158	37.5385	0.0266
31	1.5865	0.6303	24.6461	39.1016	0.0256
32	1.6103	0.6210	25.2671	40.6881	0.0246
33	1.6345	0.6118	25.8789	42.2984	0.0236
34	1.6590	0.6028	26.4817	43.9329	0.0228
35	1.6839	0.5939	27.0755	45.5919	0.0219
36	1.7091	0.5851	27.6606	47.2758	0.0212
37	1.7348	0.5764	28.2371	48.9849	0.0204
38	1.7608	0.5679	28.8050	50.7197	0.0197
39	1.7872	0.5595	29.3645	52.4805	0.0191
40	1.8140	0.5513	29.9158	54.2677	0.0184
41	1.8412	0.5431	30.4589	56.0817	0.0178
42	1.8688	0.5351	30.9940	57.9229	0.0173
43	1.8969	0.5272	31.5212	59.7917	0.0167
44	1.9253	0.5194	32.0405	61.6886	0.0162
45	1.9542	0.5117	32.5523	63.6139	0.0157
46	1.9835	0.5042	33.0564	65.5681	0.0153
47	2.0133	0.4967	33.5531	67.5516	0.0148
48	2.0435	0.4894	34.0425	69.5649	0.0144
49	2.0741	0.4821	34.5246	71.6084	0.0140
50	2.1052	0.4750	34.9996	73.6825	0.0136

2%

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0200	0.9804	0.9804	1.0000	1.0000
2	1.0404	0.9612	1.9416	2.0200	0.4951
3	1.0612	0.9423	2.8839	3.0604	0.3268
4	1.0824	0.9238	3.8077	4.1216	0.2426
5	1.1041	0.9057	4.7134	5.2040	0.1922
6	1.1262	0.8880	5.6014	6.3081	0.1585
7	1.1487	0.8706	6.4720	7.4343	0.1345
8	1.1717	0.8535	7.3255	8.5829	0.1165
9	1.1951	0.8368	8.1622	9.7546	0.1025
10	1.2190	0.8203	8.9826	10.9497	0.0913
11	1.2434	0.8043	9.7868	12.1687	0.0822
12	1.2682	0.7885	10.5753	13.4120	0.0746
13	1.2936	0.7730	11.3483	14.6803	0.0681
14	1.3195	0.7579	12.1062	15.9739	0.0626
15	1.3459	0.7430	12.8492	17.2934	0.0578
16	1.3728	0.7284	13.5777	18.6392	0.0537
17	1.4002	0.7142	14.2918	20.0120	0.0500
18	1.4282	0.7002	14.9920	21.4122	0.0467
19	1.4568	0.6864	15.6784	22.8405	0.0438
20	1.4859	0.6730	16.3514	24.2973	0.0412
21	1.5157	0.6598	17.0112	25.7832	0.0388
22	1.5460	0.6468	17.6580	27.2989	0.0366
23	1.5769	0.6342	18.2922	28.8449	0.0347
24	1.6084	0.6217	18.9139	30.4218	0.0329
25	1.6406	0.6095	19.5234	32.0302	0.0312
26	1.6734	0.5976	20.1210	33.6708	0.0297
27	1.7069	0.5859	20.7069	35.3442	0.0283
28	1.7410	0.5744	21.2812	37.0511	0.0270
29	1.7758	0.5631	21.8443	38.7921	0.0258
30	1.8114	0.5521	22.3964	40.5679	0.0247
31	1.8476	0.5412	22.9377	42.3793	0.0236
32	1.8845	0.5306	23.4683	44.2269	0.0226
33	1.9222	0.5202	23.9885	46.1114	0.0217
34	1.9607	0.5100	24.4985	48.0336	0.0208
35	1.9999	0.5000	24.9986	49.9943	0.0200
36	2.0399	0.4902	25.4888	51.9942	0.0192
37	2.0807	0.4806	25.9694	54.0340	0.0185
38	2.1223	0.4712	26.4406	56.1147	0.0178
39	2.1647	0.4619	26.9025	58.2370	0.0172
40	2.2080	0.4529	27.3554	60.4017	0.0166
41	2.2522	0.4440	27.7994	62.6098	0.0160
42	2.2972	0.4353	28.2347	64.8620	0.0154
43	2.3432	0.4268	28.6615	67.1592	0.0149
44	2.3900	0.4184	29.0799	69.5024	0.0144
45	2.4378	0.4102	29.4901	71.8924	0.0139
46	2.4866	0.4022	29.8923	74.3302	0.0135
47	2.5363	0.3943	30.2865	76.8168	0.0130
48	2.5871	0.3865	30.6731	79.3532	0.0126
49	2.6388	0.3790	31.0520	81.9402	0.0122
50	2.6916	0.3715	31.4236	84.5790	0.0118

2½%

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0250	0.9756	0.9756	1.0000	1.0000
2	1.0506	0.9518	1.9274	2.0250	0.4938
3	1.0769	0.9286	2.8560	3.0756	0.3251
4	1.1038	0.9060	3.7620	4.1525	0.2408
5	1.1314	0.8839	4.6458	5.2563	0.1902
6	1.1597	0.8623	5.5081	6.3877	0.1566
7	1.1887	0.8413	6.3494	7.5474	0.1325
8	1.2184	0.8207	7.1701	8.7361	0.1145
9	1.2489	0.8007	7.9709	9.9545	0.1005
10	1.2801	0.7812	8.7521	11.2034	0.0893
11	1.3121	0.7621	9.5142	12.4835	0.0801
12	1.3449	0.7436	10.2578	13.7955	0.0725
13	1.3785	0.7254	10.9832	15.1404	0.0660
14	1.4130	0.7077	11.6909	16.5189	0.0605
15	1.4483	0.6905	12.3814	17.9319	0.0558
16	1.4845	0.6736	13.0550	19.3802	0.0516
17	1.5216	0.6572	13.7122	20.8647	0.0479
18	1.5597	0.6412	14.3534	22.3863	0.0447
19	1.5986	0.6255	14.9789	23.9460	0.0418
20	1.6386	0.6103	15.5892	25.5446	0.0391
21	1.6796	0.5954	16.1845	27.1832	0.0368
22	1.7216	0.5809	16.7654	28.8628	0.0346
23	1.7646	0.5667	17.3321	30.5844	0.0327
24	1.8087	0.5529	17.8850	32.3490	0.0309
25	1.8539	0.5394	18.4244	34.1577	0.0293
26	1.9003	0.5262	18.9506	36.0117	0.0278
27	1.9478	0.5134	19.4640	37.9120	0.0264
28	1.9965	0.5009	19.9649	39.8598	0.0251
29	2.0464	0.4887	20.4535	41.8563	0.0239
30	2.0976	0.4767	20.9303	43.9027	0.0228
31	2.1500	0.4651	21.3954	46.0002	0.0217
32	2.2038	0.4538	21.8492	48.1502	0.0208
33	2.2588	0.4427	22.2919	50.3540	0.0199
34	2.3153	0.4319	22.7238	52.6128	0.0190
35	2.3732	0.4214	23.1451	54.9282	0.0182
36	2.4325	0.4111	23.5562	57.3014	0.0175
37	2.4933	0.4011	23.9573	59.7339	0.0167
38	2.5557	0.3913	24.3486	62.2272	0.0161
39	2.6196	0.3817	24.7303	64.7829	0.0154
40	2.6851	0.3724	25.1028	67.4025	0.0148
41	2.7522	0.3633	25.4661	70.0875	0.0143
42	2.8210	0.3545	25.8206	72.8397	0.0137
43	2.8915	0.3458	26.1664	75.6607	0.0132
44	2.9638	0.3374	26.5038	78.5522	0.0127
45	3.0379	0.3292	26.8330	81.5160	0.0123
46	3.1138	0.3211	27.1542	84.5539	0.0118
47	3.1917	0.3133	27.4675	87.6678	0.0114
48	3.2715	0.3057	27.7731	90.8595	0.0110
49	3.3533	0.2982	28.0714	94.1310	0.0106
50	3.4371	0.2909	28.3623	97.4842	0.0103

3%

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0300	0.9709	0.9709	1.0000	1.0000
2	1.0609	0.9426	1.9135	2.0300	0.4926
3	1.0927	0.9151	2.8286	3.0909	0.3235
4	1.1255	0.8885	3.7171	4.1836	0.2390
5	1.1593	0.8626	4.5797	5.3091	0.1884
6	1.1941	0.8375	5.4172	6.4684	0.1546
7	1.2299	0.8131	6.2303	7.6625	0.1305
8	1.2668	0.7894	7.0197	8.8923	0.1125
9	1.3048	0.7664	7.7861	10.1591	0.0984
10	1.3439	0.7441	8.5302	11.4639	0.0872
11	1.3842	0.7224	9.2526	12.8078	0.0781
12	1.4258	0.7014	9.9540	14.1920	0.0705
13	1.4685	0.6810	10.6350	15.6178	0.0640
14	1.5126	0.6611	11.2961	17.0863	0.0585
15	1.5580	0.6419	11.9379	18.5989	0.0538
16	1.6047	0.6232	12.5611	20.1569	0.0496
17	1.6528	0.6050	13.1661	21.7616	0.0460
18	1.7024	0.5874	13.7535	23.4144	0.0427
19	1.7535	0.5703	14.3238	25.1169	0.0398
20	1.8061	0.5537	14.8775	26.8704	0.0372
21	1.8603	0.5375	15.4150	28.6765	0.0349
22	1.9161	0.5219	15.9369	30.5368	0.0327
23	1.9736	0.5067	16.4436	32.4529	0.0308
24	2.0328	0.4919	16.9355	34.4265	0.0290
25	2.0938	0.4776	17.4131	36.4593	0.0274
26	2.1566	0.4637	17.8768	38.5530	0.0259
27	2.2213	0.4502	18.3270	40.7096	0.0246
28	2.2879	0.4371	18.7641	42.9309	0.0233
29	2.3566	0.4243	19.1885	45.2188	0.0221
30	2.4273	0.4120	19.6004	47.5754	0.0210
31	2.5001	0.4000	20.0004	50.0027	0.0200
32	2.5751	0.3883	20.3888	52.5027	0.0190
33	2.6523	0.3770	20.7658	55.0778	0.0182
34	2.7319	0.3660	21.1318	57.7302	0.0173
35	2.8139	0.3554	21.4872	60.4621	0.0165
36	2.8983	0.3450	21.8323	63.2759	0.0158
37	2.9852	0.3350	22.1672	66.1742	0.0151
38	3.0748	0.3252	22.4925	69.1594	0.0145
39	3.1670	0.3158	22.8082	72.2342	0.0138
40	3.2620	0.3066	23.1148	75.4012	0.0133
41	3.3599	0.2976	23.4124	78.6633	0.0127
42	3.4607	0.2890	23.7014	82.0232	0.0122
43	3.5645	0.2805	23.9819	85.4839	0.0117
44	3.6715	0.2724	24.2543	89.0484	0.0112
45	3.7816	0.2644	24.5187	92.7198	0.0108
46	3.8950	0.2567	24.7754	96.5014	0.0104
47	4.0119	0.2493	25.0247	100.3965	0.0100
48	4.1323	0.2420	25.2667	104.4084	0.0096
49	4.2562	0.2350	25.5017	108.5406	0.0092
50	4.3839	0.2281	25.7298	112.7968	0.0089

3 1/2%

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0350	0.9662	0.9662	1.0000	1.0000
2	1.0712	0.9335	1.8997	2.0350	0.4914
3	1.1087	0.9019	2.8016	3.1062	0.3219
4	1.1475	0.8714	3.6731	4.2149	0.2373
5	1.1877	0.8420	4.5150	5.3625	0.1865
6	1.2293	0.8135	5.3285	6.5501	0.1527
7	1.2723	0.7860	6.1145	7.7794	0.1285
8	1.3168	0.7594	6.8739	9.0517	0.1105
9	1.3629	0.7337	7.6077	10.3685	0.0964
10	1.4106	0.7089	8.3166	11.7314	0.0852
11	1.4600	0.6849	9.0015	13.1420	0.0761
12	1.5111	0.6618	9.6633	14.6019	0.0685
13	1.5640	0.6394	10.3027	16.1130	0.0621
14	1.6187	0.6178	10.9205	17.6770	0.0566
15	1.6753	0.5969	11.5174	19.2957	0.0518
16	1.7340	0.5767	12.0941	20.9710	0.0477
17	1.7947	0.5572	12.6513	22.7050	0.0440
18	1.8575	0.5384	13.1897	24.4997	0.0408
19	1.9225	0.5202	13.7098	26.3571	0.0379
20	1.9898	0.5026	14.2124	28.2796	0.0354
21	2.0594	0.4856	14.6980	30.2694	0.0330
22	2.1315	0.4692	15.1671	32.3288	0.0309
23	2.2061	0.4533	15.6204	34.4604	0.0290
24	2.2833	0.4380	16.0584	36.6665	0.0273
25	2.3632	0.4231	16.4815	38.9498	0.0257
26	2.4460	0.4088	16.8903	41.3130	0.0242
27	2.5316	0.3950	17.2854	43.7590	0.0229
28	2.6202	0.3817	17.6670	46.2905	0.0216
29	2.7119	0.3687	18.0358	48.9107	0.0204
30	2.8068	0.3563	18.3920	51.6226	0.0194
31	2.9050	0.3442	18.7363	54.4294	0.0184
32	3.0067	0.3326	19.0689	57.3344	0.0174
33	3.1119	0.3213	19.3902	60.3411	0.0166
34	3.2209	0.3105	19.7007	63.4530	0.0158
35	3.3336	0.3000	20.0007	66.6739	0.0150
36	3.4503	0.2898	20.2905	70.0075	0.0143
37	3.5710	0.2800	20.5705	73.4577	0.0136
38	3.6960	0.2706	20.8411	77.0287	0.0130
39	3.8254	0.2614	21.1025	80.7247	0.0124
40	3.9593	0.2526	21.3551	84.5501	0.0118
41	4.0978	0.2440	21.5991	88.5093	0.0113
42	4.2413	0.2358	21.8349	92.6072	0.0108
43	4.3897	0.2278	22.0627	96.8484	0.0103
44	4.5433	0.2201	22.2828	101.2381	0.0099
45	4.7023	0.2127	22.4954	105.7814	0.0095
46	4.8669	0.2055	22.7009	110.4838	0.0091
47	5.0373	0.1985	22.8994	115.3507	0.0087
48	5.2136	0.1918	23.0912	120.3880	0.0083
49	5.3961	0.1853	23.2766	125.6015	0.0080
50	5.5849	0.1791	23.4556	130.9976	0.0076

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0400	0.9615	0.9615	1.0000	1.0000
2	1.0816	0.9246	1.8861	2.0400	0.4902
3	1.1249	0.8890	2.7751	3.1216	0.3203
4	1.1699	0.8548	3.6299	4.2465	0.2355
5	1.2167	0.8219	4.4518	5.4163	0.1846
6	1.2653	0.7903	5.2421	6.6330	0.1508
7	1.3159	0.7599	6.0021	7.8983	0.1266
8	1.3686	0.7307	6.7327	9.2142	0.1085
9	1.4233	0.7026	7.4353	10.5828	0.0945
10	1.4802	0.6756	8.1109	12.0061	0.0833
11	1.5395	0.6496	8.7605	13.4863	0.0741
12	1.6010	0.6246	9.3851	15.0258	0.0666
13	1.6651	0.6006	9.9856	16.6268	0.0601
14	1.7317	0.5775	10.5631	18.2919	0.0547
15	1.8009	0.5553	11.1184	20.0236	0.0499
16	1.8730	0.5339	11.6523	21.8245	0.0458
17	1.9479	0.5134	12.1657	23.6975	0.0422
18	2.0258	0.4936	12.6593	25.6454	0.0390
19	2.1068	0.4746	13.1339	27.6712	0.0361
20	2.1911	0.4564	13.5903	29.7781	0.0336
21	2.2788	0.4388	14.0292	31.9692	0.0313
22	2.3699	0.4220	14.4511	34.2479	0.0292
23	2.4647	0.4057	14.8568	36.6179	0.0273
24	2.5633	0.3901	15.2470	39.0826	0.0256
25	2.6658	0.3751	15.6221	41.6459	0.0240
26	2.7725	0.3607	15.9828	44.3117	0.0226
27	2.8834	0.3468	16.3296	47.0842	0.0212
28	2.9987	0.3335	16.6631	49.9675	0.0200
29	3.1187	0.3207	16.9837	52.9662	0.0189
30	3.2434	0.3083	17.2920	56.0849	0.0178
31	3.3731	0.2965	17.5885	59.3283	0.0169
32	3.5081	0.2851	17.8735	62.7014	0.0159
33	3.6484	0.2741	18.1476	66.2095	0.0151
34	3.7943	0.2636	18.4112	69.8578	0.0143
35	3.9461	0.2534	18.6646	73.6521	0.0136
36	4.1039	0.2437	18.9083	77.5982	0.0129
37	4.2681	0.2343	19.1426	81.7022	0.0122
38	4.4388	0.2253	19.3679	85.9702	0.0116
39	4.6164	0.2166	19.5845	90.4091	0.0111
40	4.8010	0.2083	19.7928	95.0254	0.0105
41	4.9931	0.2003	19.9930	99.8264	0.0100
42	5.1928	0.1926	20.1856	104.8195	0.0095
43	5.4005	0.1852	20.3708	110.0122	0.0091
44	5.6165	0.1780	20.5488	115.4127	0.0087
45	5.8412	0.1712	20.7200	121.0292	0.0083
46	6.0748	0.1646	20.8847	126.8704	0.0079
47	6.3178	0.1583	21.0429	132.9452	0.0075
48	6.5705	0.1522	21.1951	139.2630	0.0072
49	6.8333	0.1463	21.3415	145.8335	0.0069
50	7.1067	0.1407	21.4822	152.6669	0.0066

4½%

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0450	0.9569	0.9569	1.0000	1.0000
2	1.0920	0.9157	1.8727	2.0450	0.4890
3	1.1412	0.8763	2.7490	3.1370	0.3188
4	1.1925	0.8386	3.5875	4.2782	0.2337
5	1.2462	0.8025	4.3900	5.4707	0.1828
6	1.3023	0.7679	5.1579	6.7169	0.1489
7	1.3609	0.7348	5.8927	8.0191	0.1247
8	1.4221	0.7032	6.5959	9.3800	0.1066
9	1.4861	0.6729	7.2688	10.8021	0.0926
10	1.5530	0.6439	7.9127	12.2882	0.0814
11	1.6229	0.6162	8.5289	13.8412	0.0722
12	1.6959	0.5897	9.1186	15.4640	0.0647
13	1.7722	0.5643	9.6828	17.1599	0.0583
14	1.8519	0.5400	10.2228	18.9321	0.0528
15	1.9353	0.5167	10.7395	20.7840	0.0481
16	2.0224	0.4945	11.2340	22.7193	0.0440
17	2.1134	0.4732	11.7072	24.7417	0.0404
18	2.2085	0.4528	12.1600	26.8551	0.0372
19	2.3079	0.4333	12.5933	29.0635	0.0344
20	2.4117	0.4146	13.0079	31.3714	0.0319
21	2.5202	0.3968	13.4047	33.7831	0.0296
22	2.6337	0.3797	13.7844	36.3033	0.0275
23	2.7522	0.3634	14.1478	38.9370	0.0257
24	2.8760	0.3477	14.4955	41.6892	0.0240
25	3.0054	0.3327	14.8282	44.5652	0.0224
26	3.1407	0.3184	15.1466	47.5706	0.0210
27	3.2820	0.3047	15.4513	50.7113	0.0197
28	3.4297	0.2916	15.7429	53.9933	0.0185
29	3.5840	0.2790	16.0219	57.4230	0.0174
30	3.7453	0.2670	16.2889	61.0070	0.0164
31	3.9139	0.2555	16.5444	64.7523	0.0154
32	4.0900	0.2445	16.7889	68.6662	0.0146
33	4.2740	0.2340	17.0229	72.7562	0.0137
34	4.4664	0.2239	17.2468	77.0302	0.0130
35	4.6673	0.2143	17.4610	81.4965	0.0123
36	4.8774	0.2050	17.6660	86.1639	0.0116
37	5.0969	0.1962	17.8622	91.0412	0.0110
38	5.3262	0.1878	18.0500	96.1381	0.0104
39	5.5659	0.1797	18.2297	101.4643	0.0099
40	5.8164	0.1719	18.4016	107.0302	0.0093
41	6.0781	0.1645	18.5661	112.8466	0.0089
42	6.3516	0.1574	18.7235	118.9247	0.0084
43	6.6374	0.1507	18.8742	125.2763	0.0080
44	6.9361	0.1442	19.0184	131.9137	0.0076
45	7.2482	0.1380	19.1563	138.8498	0.0072
46	7.5744	0.1320	19.2884	146.0980	0.0068
47	7.9153	0.1263	19.4147	153.6724	0.0065
48	8.2714	0.1209	19.5356	161.5877	0.0062
49	8.6437	0.1157	19.6513	169.8592	0.0059
50	9.0326	0.1107	19.7620	178.5028	0.0056

5%

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0500	0.9524	0.9524	1.0000	1.0000
2	1.1025	0.9070	1.8594	2.0500	0.4878
3	1.1576	0.8638	2.7232	3.1525	0.3172
4	1.2155	0.8227	3.5459	4.3101	0.2320
5	1.2763	0.7835	4.3295	5.5256	0.1810
6	1.3401	0.7462	5.0757	6.8019	0.1470
7	1.4071	0.7107	5.7864	8.1420	0.1228
8	1.4775	0.6768	6.4632	9.5491	0.1047
9	1.5513	0.6446	7.1078	11.0265	0.0907
10	1.6289	0.6139	7.7217	12.5779	0.0795
11	1.7103	0.5847	8.3064	14.2068	0.0704
12	1.7959	0.5568	8.8632	15.9171	0.0628
13	1.8856	0.5303	9.3936	17.7129	0.0565
14	1.9799	0.5051	9.8986	19.5986	0.0510
15	2.0789	0.4810	10.3796	21.5785	0.0463
16	2.1829	0.4581	10.8378	23.6574	0.0423
17	2.2920	0.4363	11.2741	25.8403	0.0387
18	2.4066	0.4155	11.6896	28.1323	0.0355
19	2.5270	0.3957	12.0853	30.5389	0.0327
20	2.6533	0.3769	12.4622	33.0659	0.0302
21	2.7860	0.3589	12.8211	35.7192	0.0280
22	2.9253	0.3418	13.1630	38.5051	0.0260
23	3.0715	0.3256	13.4886	41.4304	0.0241
24	3.2251	0.3101	13.7986	44.5019	0.0225
25	3.3864	0.2953	14.0939	47.7270	0.0210
26	3.5557	0.2812	14.3752	51.1133	0.0196
27	3.7335	0.2678	14.6430	54.6690	0.0183
28	3.9201	0.2551	14.8981	58.4024	0.0171
29	4.1161	0.2429	15.1411	62.3225	0.0160
30	4.3219	0.2314	15.3724	66.4386	0.0151
31	4.5380	0.2204	15.5928	70.7606	0.0141
32	4.7649	0.2099	15.8027	75.2986	0.0133
33	5.0032	0.1999	16.0025	80.0635	0.0125
34	5.2533	0.1904	16.1929	85.0667	0.0118
35	5.5160	0.1813	16.3742	90.3200	0.0111
36	5.7918	0.1727	16.5468	95.8360	0.0104
37	6.0814	0.1644	16.7113	101.6278	0.0098
38	6.3855	0.1566	16.8679	107.7092	0.0093
39	6.7047	0.1491	17.0170	114.0946	0.0088
40	7.0400	0.1420	17.1591	120.7993	0.0083
41	7.3920	0.1353	17.2944	127.8393	0.0078
42	7.7616	0.1288	17.4232	135.2312	0.0074
43	8.1496	0.1227	17.5459	142.9928	0.0070
44	8.5571	0.1169	17.6628	151.1424	0.0066
45	8.9850	0.1113	17.7741	159.6995	0.0063
46	9.4342	0.1060	17.8801	168.6845	0.0059
47	9.9059	0.1009	17.9810	178.1187	0.0056
48	10.4012	0.0961	18.0772	188.0246	0.0053
49	10.9213	0.0916	18.1687	198.4258	0.0050
50	11.4674	0.0872	18.2559	209.3470	0.0048

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0550	0.9479	0.9479	1.0000	1.0000
2	1.1130	0.8985	1.8463	2.0550	0.4866
3	1.1742	0.8516	2.6979	3.1680	0.3157
4	1.2388	0.8072	3.5051	4.3423	0.2303
5	1.3070	0.7651	4.2703	5.5811	0.1792
6	1.3788	0.7252	4.9955	6.8880	0.1452
7	1.4547	0.6874	5.6830	8.2669	0.1210
8	1.5347	0.6516	6.3346	9.7216	0.1029
9	1.6191	0.6176	6.9522	11.2562	0.0888
10	1.7081	0.5854	7.5376	12.8753	0.0777
11	1.8021	0.5549	8.0925	14.5835	0.0686
12	1.9012	0.5260	8.6185	16.3856	0.0610
13	2.0058	0.4986	9.1171	18.2868	0.0547
14	2.1161	0.4726	9.5896	20.2925	0.0493
15	2.2325	0.4479	10.0376	22.4086	0.0446
16	2.3553	0.4246	10.4622	24.6411	0.0406
17	2.4848	0.4024	10.8646	26.9963	0.0370
18	2.6215	0.3815	11.2461	29.4811	0.0339
19	2.7656	0.3616	11.6076	32.1026	0.0312
20	2.9178	0.3427	11.9504	34.8682	0.0287
21	3.0782	0.3249	12.2752	37.7860	0.0265
22	3.2475	0.3079	12.5832	40.8642	0.0245
23	3.4261	0.2919	12.8750	44.1117	0.0227
24	3.6146	0.2767	13.1517	47.5379	0.0210
25	3.8134	0.2622	13.4139	51.1524	0.0195
26	4.0231	0.2486	13.6625	54.9658	0.0182
27	4.2444	0.2356	13.8981	58.9889	0.0170
28	4.4778	0.2233	14.1214	63.2333	0.0158
29	4.7241	0.2117	14.3331	67.7112	0.0148
30	4.9839	0.2006	14.5337	72.4353	0.0138
31	5.2581	0.1902	14.7239	77.4192	0.0129
32	5.5472	0.1803	14.9042	82.6772	0.0121
33	5.8523	0.1709	15.0751	88.2245	0.0113
34	6.1742	0.1620	15.2370	94.0768	0.0106
35	6.5138	0.1535	15.3905	100.2510	0.0100
36	6.8721	0.1455	15.5361	106.7648	0.0094
37	7.2500	0.1379	15.6740	113.6369	0.0088
38	7.6488	0.1307	15.8047	120.8869	0.0083
39	8.0695	0.1239	15.9287	128.5357	0.0078
40	8.5133	0.1175	16.0461	136.6051	0.0073
41	8.9815	0.1113	16.1575	145.1184	0.0069
42	9.4755	0.1055	16.2630	154.0999	0.0065
43	9.9966	0.1000	16.3630	163.5753	0.0061
44	10.5465	0.0948	16.4578	173.5720	0.0058
45	11.1265	0.0899	16.5477	184.1184	0.0054
46	11.7385	0.0852	16.6329	195.2449	0.0051
47	12.3841	0.0807	16.7137	206.9834	0.0048
48	13.0652	0.0765	16.7902	219.3674	0.0046
49	13.7838	0.0725	16.8627	232.4326	0.0043
50	14.5419	0.0688	16.9315	246.2164	0.0041

6%

PERIOD	COMPOUND INTEREST	PRESENT VALUE	PRESENT VALUE OF ANNUITY	AMOUNT OF ANNUITY	SINKING FUND
1	1.0600	0.9434	0.9434	1.0000	1.0000
2	1.1236	0.8900	1.8334	2.0600	0.4854
3	1.1910	0.8396	2.6730	3.1836	0.3141
4	1.2625	0.7921	3.4651	4.3746	0.2286
5	1.3382	0.7473	4.2124	5.6371	0.1774
6	1.4185	0.7050	4.9173	6.9753	0.1434
7	1.5036	0.6651	5.5824	8.3938	0.1191
8	1.5938	0.6274	6.2098	9.8975	0.1010
9	1.6895	0.5919	6.8017	11.4913	0.0870
10	1.7908	0.5584	7.3601	13.1808	0.0759
11	1.8983	0.5268	7.8869	14.9716	0.0668
12	2.0122	0.4970	8.3838	16.8699	0.0593
13	2.1329	0.4688	8.8527	18.8821	0.0530
14	2.2609	0.4423	9.2950	21.0150	0.0476
15	2.3966	0.4173	9.7122	23.2759	0.0430
16	2.5404	0.3936	10.1059	25.6725	0.0390
17	2.6928	0.3714	10.4773	28.2128	0.0354
18	2.8543	0.3503	10.8276	30.9056	0.0324
19	3.0256	0.3305	11.1581	33.7599	0.0296
20	3.2071	0.3118	11.4699	36.7855	0.0272
21	3.3996	0.2942	11.7641	39.9927	0.0250
22	3.6035	0.2775	12.0416	43.3922	0.0230
23	3.8197	0.2618	12.3034	46.9958	0.0213
24	4.0489	0.2470	12.5504	50.8155	0.0197
25	4.2919	0.2330	12.7834	54.8644	0.0182
26	4.5494	0.2198	13.0032	59.1563	0.0169
27	4.8223	0.2074	13.2105	63.7057	0.0157
28	5.1117	0.1956	13.4062	68.5280	0.0146
29	5.4184	0.1846	13.5907	73.6397	0.0136
30	5.7435	0.1741	13.7648	79.0580	0.0126
31	6.0881	0.1643	13.9291	84.8015	0.0118
32	6.4534	0.1550	14.0840	90.8896	0.0110
33	6.8406	0.1462	14.2302	97.3430	0.0103
34	7.2510	0.1379	14.3681	104.1836	0.0096
35	7.6861	0.1301	14.4982	111.4346	0.0090
36	8.1472	0.1227	14.6210	119.1206	0.0084
37	8.6361	0.1158	14.7368	127.2679	0.0079
38	9.1542	0.1092	14.8460	135.9039	0.0074
39	9.7035	0.1031	14.9491	145.0581	0.0069
40	10.2857	0.0972	15.0463	154.7616	0.0065
41	10.9028	0.0917	15.1380	165.0473	0.0061
42	11.5570	0.0865	15.2245	175.9501	0.0057
43	12.2504	0.0816	15.3062	187.5071	0.0053
44	12.9855	0.0770	15.3832	199.7575	0.0050
45	13.7646	0.0727	15.4558	212.7430	0.0047
46	14.5905	0.0685	15.5244	226.5076	0.0044
47	15.4659	0.0647	15.5890	241.0980	0.0041
48	16.3938	0.0610	15.6500	256.5639	0.0039
49	17.3775	0.0575	15.7076	272.9577	0.0037
50	18.4201	0.0543	15.7619	290.3351	0.0034