

A: Present Value of 1 after N Periods at Discount Rate R

N	1	2	3	4	5	10	20	30	40	inf.
R										
0.00%	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.50%	0.9950	0.9901	0.9851	0.9802	0.9754	0.9513	0.9051	0.8610	0.8191	0.0000
1.00%	0.9901	0.9803	0.9706	0.9610	0.9515	0.9053	0.8195	0.7419	0.6717	0.0000
1.50%	0.9852	0.9707	0.9563	0.9422	0.9283	0.8617	0.7425	0.6398	0.5513	0.0000
2.00%	0.9804	0.9612	0.9423	0.9238	0.9057	0.8203	0.6730	0.5521	0.4529	0.0000
2.50%	0.9756	0.9518	0.9286	0.9060	0.8839	0.7812	0.6103	0.4767	0.3724	0.0000
3.00%	0.9709	0.9426	0.9151	0.8885	0.8626	0.7441	0.5537	0.4120	0.3066	0.0000
3.50%	0.9662	0.9335	0.9019	0.8714	0.8420	0.7089	0.5026	0.3563	0.2526	0.0000
4.00%	0.9615	0.9246	0.8890	0.8548	0.8219	0.6756	0.4564	0.3083	0.2083	0.0000
4.50%	0.9569	0.9157	0.8763	0.8386	0.8025	0.6439	0.4146	0.2670	0.1719	0.0000
5.00%	0.9524	0.9070	0.8638	0.8227	0.7835	0.6139	0.3769	0.2314	0.1420	0.0000
5.50%	0.9479	0.8985	0.8516	0.8072	0.7651	0.5854	0.3427	0.2006	0.1175	0.0000
6.00%	0.9434	0.8900	0.8396	0.7921	0.7473	0.5584	0.3118	0.1741	0.0972	0.0000
6.50%	0.9390	0.8817	0.8278	0.7773	0.7299	0.5327	0.2838	0.1512	0.0805	0.0000
7.00%	0.9346	0.8734	0.8163	0.7629	0.7130	0.5083	0.2584	0.1314	0.0668	0.0000
7.50%	0.9302	0.8653	0.8050	0.7488	0.6966	0.4852	0.2354	0.1142	0.0554	0.0000
8.00%	0.9259	0.8573	0.7938	0.7350	0.6806	0.4632	0.2145	0.0994	0.0460	0.0000
8.50%	0.9217	0.8495	0.7829	0.7216	0.6650	0.4423	0.1956	0.0865	0.0383	0.0000
9.00%	0.9174	0.8417	0.7722	0.7084	0.6499	0.4224	0.1784	0.0754	0.0318	0.0000
9.50%	0.9132	0.8340	0.7617	0.6956	0.6352	0.4035	0.1628	0.0657	0.0265	0.0000
10.00%	0.9091	0.8264	0.7513	0.6830	0.6209	0.3855	0.1486	0.0573	0.0221	0.0000
10.50%	0.9050	0.8190	0.7412	0.6707	0.6070	0.3684	0.1358	0.0500	0.0184	0.0000
11.00%	0.9009	0.8116	0.7312	0.6587	0.5935	0.3522	0.1240	0.0437	0.0154	0.0000
11.50%	0.8969	0.8044	0.7214	0.6470	0.5803	0.3367	0.1134	0.0382	0.0129	0.0000
12.00%	0.8929	0.7972	0.7118	0.6355	0.5674	0.3220	0.1037	0.0334	0.0107	0.0000
12.50%	0.8889	0.7901	0.7023	0.6243	0.5549	0.3079	0.0948	0.0292	0.0090	0.0000
13.00%	0.8850	0.7831	0.6931	0.6133	0.5428	0.2946	0.0868	0.0256	0.0075	0.0000
13.50%	0.8811	0.7763	0.6839	0.6026	0.5309	0.2819	0.0794	0.0224	0.0063	0.0000
14.00%	0.8772	0.7695	0.6750	0.5921	0.5194	0.2697	0.0728	0.0196	0.0053	0.0000
14.50%	0.8734	0.7628	0.6662	0.5818	0.5081	0.2582	0.0667	0.0172	0.0044	0.0000
15.00%	0.8696	0.7561	0.6575	0.5718	0.4972	0.2472	0.0611	0.0151	0.0037	0.0000
15.50%	0.8658	0.7496	0.6490	0.5619	0.4865	0.2367	0.0560	0.0133	0.0031	0.0000
16.00%	0.8621	0.7432	0.6407	0.5523	0.4761	0.2267	0.0514	0.0116	0.0026	0.0000
16.50%	0.8584	0.7368	0.6324	0.5429	0.4660	0.2171	0.0471	0.0102	0.0022	0.0000
17.00%	0.8547	0.7305	0.6244	0.5337	0.4561	0.2080	0.0433	0.0090	0.0019	0.0000
17.50%	0.8511	0.7243	0.6164	0.5246	0.4465	0.1994	0.0397	0.0079	0.0016	0.0000
18.00%	0.8475	0.7182	0.6086	0.5158	0.4371	0.1911	0.0365	0.0070	0.0013	0.0000
18.50%	0.8439	0.7121	0.6010	0.5071	0.4280	0.1832	0.0335	0.0061	0.0011	0.0000
19.00%	0.8403	0.7062	0.5934	0.4987	0.4190	0.1756	0.0308	0.0054	0.0010	0.0000
19.50%	0.8368	0.7003	0.5860	0.4904	0.4104	0.1684	0.0284	0.0048	0.0008	0.0000
20.00%	0.8333	0.6944	0.5787	0.4823	0.4019	0.1615	0.0261	0.0042	0.0007	0.0000

B: Future Value after N Periods of 1 at Discount Rate Rate R

N	1	2	3	4	5	10	20	30	40	inf.
R										
0.00%	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	inf.
0.50%	1.0050	1.0100	1.0151	1.0202	1.0253	1.0511	1.105	1.161	1.221	inf.
1.00%	1.0100	1.0201	1.0303	1.0406	1.0510	1.1046	1.220	1.348	1.489	inf.
1.50%	1.0150	1.0302	1.0457	1.0614	1.0773	1.1605	1.347	1.563	1.814	inf.
2.00%	1.0200	1.0404	1.0612	1.0824	1.1041	1.2190	1.486	1.811	2.208	inf.
2.50%	1.0250	1.0506	1.0769	1.1038	1.1314	1.2801	1.639	2.098	2.685	inf.
3.00%	1.0300	1.0609	1.0927	1.1255	1.1593	1.3439	1.806	2.427	3.262	inf.
3.50%	1.0350	1.0712	1.1087	1.1475	1.1877	1.4106	1.990	2.807	3.959	inf.
4.00%	1.0400	1.0816	1.1249	1.1699	1.2167	1.4802	2.191	3.243	4.801	inf.
4.50%	1.0450	1.0920	1.1412	1.1925	1.2462	1.5530	2.412	3.745	5.816	inf.
5.00%	1.0500	1.1025	1.1576	1.2155	1.2763	1.6289	2.653	4.322	7.040	inf.
5.50%	1.0550	1.1130	1.1742	1.2388	1.3070	1.7081	2.918	4.984	8.513	inf.
6.00%	1.0600	1.1236	1.1910	1.2625	1.3382	1.7908	3.207	5.743	10.286	inf.
6.50%	1.0650	1.1342	1.2079	1.2865	1.3701	1.8771	3.524	6.614	12.416	inf.
7.00%	1.0700	1.1449	1.2250	1.3108	1.4026	1.9672	3.870	7.612	14.974	inf.
7.50%	1.0750	1.1556	1.2423	1.3355	1.4356	2.0610	4.248	8.755	18.044	inf.
8.00%	1.0800	1.1664	1.2597	1.3605	1.4693	2.1589	4.661	10.063	21.725	inf.
8.50%	1.0850	1.1772	1.2773	1.3859	1.5037	2.2610	5.112	11.558	26.133	inf.
9.00%	1.0900	1.1881	1.2950	1.4116	1.5386	2.3674	5.604	13.268	31.409	inf.
9.50%	1.0950	1.1990	1.3129	1.4377	1.5742	2.4782	6.142	15.220	37.719	inf.
10.00%	1.1000	1.2100	1.3310	1.4641	1.6105	2.5937	6.727	17.449	45.259	inf.
10.50%	1.1050	1.2210	1.3492	1.4909	1.6474	2.7141	7.366	19.993	54.261	inf.
11.00%	1.1100	1.2321	1.3676	1.5181	1.6851	2.8394	8.062	22.892	65.001	inf.
11.50%	1.1150	1.2432	1.3862	1.5456	1.7234	2.9699	8.821	26.197	77.803	inf.
12.00%	1.1200	1.2544	1.4049	1.5735	1.7623	3.1058	9.646	29.960	93.051	inf.
12.50%	1.1250	1.2656	1.4238	1.6018	1.8020	3.2473	10.545	34.243	111.199	inf.
13.00%	1.1300	1.2769	1.4429	1.6305	1.8424	3.3946	11.523	39.116	132.782	inf.
13.50%	1.1350	1.2882	1.4621	1.6595	1.8836	3.5478	12.587	44.656	158.429	inf.
14.00%	1.1400	1.2996	1.4815	1.6890	1.9254	3.7072	13.743	50.950	188.884	inf.
14.50%	1.1450	1.3110	1.5011	1.7188	1.9680	3.8731	15.001	58.098	225.019	inf.
15.00%	1.1500	1.3225	1.5209	1.7490	2.0114	4.0456	16.367	66.212	267.864	inf.
15.50%	1.1550	1.3340	1.5408	1.7796	2.0555	4.2249	17.850	75.415	318.625	inf.
16.00%	1.1600	1.3456	1.5609	1.8106	2.1003	4.4114	19.461	85.850	378.721	inf.
16.50%	1.1650	1.3572	1.5812	1.8421	2.1460	4.6053	21.209	97.674	449.818	inf.
17.00%	1.1700	1.3689	1.6016	1.8739	2.1924	4.8068	23.106	111.065	533.869	inf.
17.50%	1.1750	1.3806	1.6222	1.9061	2.2397	5.0162	25.163	126.222	633.162	inf.
18.00%	1.1800	1.3924	1.6430	1.9388	2.2878	5.2338	27.393	143.371	750.378	inf.
18.50%	1.1850	1.4042	1.6640	1.9718	2.3366	5.4599	29.810	162.761	888.657	inf.
19.00%	1.1900	1.4161	1.6852	2.0053	2.3864	5.6947	32.429	184.675	*****	inf.
19.50%	1.1950	1.4280	1.7065	2.0393	2.4369	5.9385	35.266	209.429	*****	inf.
20.00%	1.2000	1.4400	1.7280	2.0736	2.4883	6.1917	38.338	237.376	*****	inf.

C: Present Value of 1 per Period for N Periods at Discount Rate R

N	1	2	3	4	5	10	20	30	40	inf.
R										
0.00%	1.0000	2.0000	3.0000	4.0000	5.0000	10.0000	20.0000	30.0000	40.0000	inf.
0.50%	0.9950	1.9851	2.9702	3.9505	4.9259	9.7304	18.9874	27.7941	36.1722	200.00
1.00%	0.9901	1.9704	2.9410	3.9020	4.8534	9.4713	18.0456	25.8077	32.8347	100.00
1.50%	0.9852	1.9559	2.9122	3.8544	4.7826	9.2222	17.1686	24.0158	29.9158	66.6667
2.00%	0.9804	1.9416	2.8839	3.8077	4.7135	8.9826	16.3514	22.3965	27.3555	50.0000
2.50%	0.9756	1.9274	2.8560	3.7620	4.6458	8.7521	15.5892	20.9303	25.1028	40.0000
3.00%	0.9709	1.9135	2.8286	3.7171	4.5797	8.5302	14.8775	19.6004	23.1148	33.3333
3.50%	0.9662	1.8997	2.8016	3.6731	4.5151	8.3166	14.2124	18.3920	21.3551	28.5714
4.00%	0.9615	1.8861	2.7751	3.6299	4.4518	8.1109	13.5903	17.2920	19.7928	25.0000
4.50%	0.9569	1.8727	2.7490	3.5875	4.3900	7.9127	13.0079	16.2889	18.4016	22.2222
5.00%	0.9524	1.8594	2.7232	3.5460	4.3295	7.7217	12.4622	15.3725	17.1591	20.0000
5.50%	0.9479	1.8463	2.6979	3.5052	4.2703	7.5376	11.9504	14.5337	16.0461	18.1818
6.00%	0.9434	1.8334	2.6730	3.4651	4.2124	7.3601	11.4699	13.7648	15.0463	16.6667
6.50%	0.9390	1.8206	2.6485	3.4258	4.1557	7.1888	11.0185	13.0587	14.1455	15.3846
7.00%	0.9346	1.8080	2.6243	3.3872	4.1002	7.0236	10.5940	12.4090	13.3317	14.2857
7.50%	0.9302	1.7956	2.6005	3.3493	4.0459	6.8641	10.1945	11.8104	12.5944	13.3333
8.00%	0.9259	1.7833	2.5771	3.3121	3.9927	6.7101	9.8181	11.2578	11.9246	12.5000
8.50%	0.9217	1.7711	2.5540	3.2756	3.9406	6.5613	9.4633	10.7468	11.3145	11.7647
9.00%	0.9174	1.7591	2.5313	3.2397	3.8897	6.4177	9.1285	10.2737	10.7574	11.1111
9.50%	0.9132	1.7473	2.5089	3.2045	3.8397	6.2788	8.8124	9.8347	10.2472	10.5263
10.00%	0.9091	1.7355	2.4869	3.1699	3.7908	6.1446	8.5136	9.4269	9.7791	10.0000
10.50%	0.9050	1.7240	2.4651	3.1359	3.7429	6.0148	8.2309	9.0474	9.3483	9.5238
11.00%	0.9009	1.7125	2.4437	3.1024	3.6959	5.8892	7.9633	8.6938	8.9511	9.0909
11.50%	0.8969	1.7012	2.4226	3.0696	3.6499	5.7678	7.7098	8.3637	8.5839	8.6957
12.00%	0.8929	1.6901	2.4018	3.0373	3.6048	5.6502	7.4694	8.0552	8.2438	8.3333
12.50%	0.8889	1.6790	2.3813	3.0056	3.5606	5.5364	7.2414	7.7664	7.9281	8.0000
13.00%	0.8850	1.6681	2.3612	2.9745	3.5172	5.4262	7.0248	7.4957	7.6344	7.6923
13.50%	0.8811	1.6573	2.3413	2.9438	3.4747	5.3195	6.8189	7.2415	7.3607	7.4074
14.00%	0.8772	1.6467	2.3216	2.9137	3.4331	5.2161	6.6231	7.0027	7.1050	7.1429
14.50%	0.8734	1.6361	2.3023	2.8841	3.3922	5.1159	6.4368	6.7778	6.8659	6.8966
15.00%	0.8696	1.6257	2.2832	2.8550	3.3522	5.0188	6.2593	6.5660	6.6418	6.6667
15.50%	0.8658	1.6154	2.2644	2.8263	3.3129	4.9246	6.0902	6.3661	6.4314	6.4516
16.00%	0.8621	1.6052	2.2459	2.7982	3.2743	4.8332	5.9288	6.1772	6.2335	6.2500
16.50%	0.8584	1.5952	2.2276	2.7705	3.2365	4.7446	5.7748	5.9986	6.0471	6.0606
17.00%	0.8547	1.5852	2.2096	2.7432	3.1993	4.6586	5.6278	5.8294	5.8713	5.8824
17.50%	0.8511	1.5754	2.1918	2.7164	3.1629	4.5751	5.4872	5.6690	5.7053	5.7143
18.00%	0.8475	1.5656	2.1743	2.6901	3.1272	4.4941	5.3527	5.5168	5.5482	5.5556
18.50%	0.8439	1.5560	2.1570	2.6641	3.0921	4.4154	5.2241	5.3722	5.3993	5.4054
19.00%	0.8403	1.5465	2.1399	2.6386	3.0576	4.3389	5.1009	5.2347	5.2582	5.2632
19.50%	0.8368	1.5371	2.1231	2.6135	3.0238	4.2647	4.9828	5.1037	5.1241	5.1282
20.00%	0.8333	1.5278	2.1065	2.5887	2.9906	4.1925	4.8696	4.9789	4.9966	5.0000

D: Payment Amount for Mortgage of 1 for N Periods at Rate R

N	1	2	3	4	5	10	20	30	40	inf.
R										
0.00%	1.0000	0.5000	0.3333	0.2500	0.2000	0.1000	0.0500	0.0333	0.0250	0.0000
0.50%	1.0050	0.5038	0.3367	0.2531	0.2030	0.1028	0.0527	0.0360	0.0276	0.0050
1.00%	1.0100	0.5075	0.3400	0.2563	0.2060	0.1056	0.0554	0.0387	0.0305	0.0100
1.50%	1.0150	0.5113	0.3434	0.2594	0.2091	0.1084	0.0582	0.0416	0.0334	0.0150
2.00%	1.0200	0.5150	0.3468	0.2626	0.2122	0.1113	0.0612	0.0446	0.0366	0.0200
2.50%	1.0250	0.5188	0.3501	0.2658	0.2152	0.1143	0.0641	0.0478	0.0398	0.0250
3.00%	1.0300	0.5226	0.3535	0.2690	0.2184	0.1172	0.0672	0.0510	0.0433	0.0300
3.50%	1.0350	0.5264	0.3569	0.2723	0.2215	0.1202	0.0704	0.0544	0.0468	0.0350
4.00%	1.0400	0.5302	0.3603	0.2755	0.2246	0.1233	0.0736	0.0578	0.0505	0.0400
4.50%	1.0450	0.5340	0.3638	0.2787	0.2278	0.1264	0.0769	0.0614	0.0543	0.0450
5.00%	1.0500	0.5378	0.3672	0.2820	0.2310	0.1295	0.0802	0.0651	0.0583	0.0500
5.50%	1.0550	0.5416	0.3707	0.2853	0.2342	0.1327	0.0837	0.0688	0.0623	0.0550
6.00%	1.0600	0.5454	0.3741	0.2886	0.2374	0.1359	0.0872	0.0726	0.0665	0.0600
6.50%	1.0650	0.5493	0.3776	0.2919	0.2406	0.1391	0.0908	0.0766	0.0707	0.0650
7.00%	1.0700	0.5531	0.3811	0.2952	0.2439	0.1424	0.0944	0.0806	0.0750	0.0700
7.50%	1.0750	0.5569	0.3845	0.2986	0.2472	0.1457	0.0981	0.0847	0.0794	0.0750
8.00%	1.0800	0.5608	0.3880	0.3019	0.2505	0.1490	0.1019	0.0888	0.0839	0.0800
8.50%	1.0850	0.5646	0.3915	0.3053	0.2538	0.1524	0.1057	0.0931	0.0884	0.0850
9.00%	1.0900	0.5685	0.3951	0.3087	0.2571	0.1558	0.1095	0.0973	0.0930	0.0900
9.50%	1.0950	0.5723	0.3986	0.3121	0.2604	0.1593	0.1135	0.1017	0.0976	0.0950
10.00%	1.1000	0.5762	0.4021	0.3155	0.2638	0.1627	0.1175	0.1061	0.1023	0.1000
10.50%	1.1050	0.5801	0.4057	0.3189	0.2672	0.1663	0.1215	0.1105	0.1070	0.1050
11.00%	1.1100	0.5839	0.4092	0.3223	0.2706	0.1698	0.1256	0.1150	0.1117	0.1100
11.50%	1.1150	0.5878	0.4128	0.3258	0.2740	0.1734	0.1297	0.1196	0.1165	0.1150
12.00%	1.1200	0.5917	0.4163	0.3292	0.2774	0.1770	0.1339	0.1241	0.1213	0.1200
12.50%	1.1250	0.5956	0.4199	0.3327	0.2809	0.1806	0.1381	0.1288	0.1261	0.1250
13.00%	1.1300	0.5995	0.4235	0.3362	0.2843	0.1843	0.1424	0.1334	0.1310	0.1300
13.50%	1.1350	0.6034	0.4271	0.3397	0.2878	0.1880	0.1467	0.1381	0.1359	0.1350
14.00%	1.1400	0.6073	0.4307	0.3432	0.2913	0.1917	0.1510	0.1428	0.1407	0.1400
14.50%	1.1450	0.6112	0.4343	0.3467	0.2948	0.1955	0.1554	0.1475	0.1456	0.1450
15.00%	1.1500	0.6151	0.4380	0.3503	0.2983	0.1993	0.1598	0.1523	0.1506	0.1500
15.50%	1.1550	0.6190	0.4416	0.3538	0.3019	0.2031	0.1642	0.1571	0.1555	0.1550
16.00%	1.1600	0.6230	0.4453	0.3574	0.3054	0.2069	0.1687	0.1619	0.1604	0.1600
16.50%	1.1650	0.6269	0.4489	0.3609	0.3090	0.2108	0.1732	0.1667	0.1654	0.1650
17.00%	1.1700	0.6308	0.4526	0.3645	0.3126	0.2147	0.1777	0.1715	0.1703	0.1700
17.50%	1.1750	0.6348	0.4562	0.3681	0.3162	0.2186	0.1822	0.1764	0.1753	0.1750
18.00%	1.1800	0.6387	0.4599	0.3717	0.3198	0.2225	0.1868	0.1813	0.1802	0.1800
18.50%	1.1850	0.6427	0.4636	0.3754	0.3234	0.2265	0.1914	0.1861	0.1852	0.1850
19.00%	1.1900	0.6466	0.4673	0.3790	0.3271	0.2305	0.1960	0.1910	0.1902	0.1900
19.50%	1.1950	0.6506	0.4710	0.3826	0.3307	0.2345	0.2007	0.1959	0.1952	0.1950
20.00%	1.2000	0.6545	0.4747	0.3863	0.3344	0.2385	0.2054	0.2008	0.2001	0.2000