APPENDIX C

Interest and Annuity Tables for Discrete Compounding

For various values of *i* from $\frac{1}{4}$ % to 25%

i = effective interest rate per period (usually one year)

N = number of compounding periods

$$(F/P,i\%,N)=(1+i)^N$$

$$(A/F, i\%, N) = \frac{i}{(1+i)^N - 1}$$

$$(P/F, i\%, N) = \frac{1}{(1+i)^N}$$

$$(A/P, i\%, N) = \frac{i(1+i)^N}{(1+i)^N - 1}$$

$$(F/A, i\%, N) = \frac{(1+i)^N - 1}{i}$$

$$(P/F, i\%, N) = \frac{1}{(1+i)^N} \qquad (A/P, i\%, N) = \frac{i(1+i)^N}{(1+i)^N - 1}$$
$$(F/A, i\%, N) = \frac{(1+i)^N - 1}{i} \qquad (P/G, i\%, N) = \frac{1}{i} \left[\frac{(1+i)^N - 1}{i(1+i)^N} - \frac{N}{(1+i)^N} \right]$$

$$(P/A, i\%, N) = \frac{(1+i)^N - 1}{i(1+i)^N}$$

$$(P/A, i\%, N) = \frac{(1+i)^N - 1}{i(1+i)^N} \qquad (A/G, i\%, N) = \frac{1}{i} - \frac{N}{(1+i)^N - 1}$$

TABLE C-1 Discrete Compounding; <i>i</i> = Single Payment	iscrete Com		pounding; /	= 4 % Ilniform Series	Series Series		(Thiffe	Uniform Gradient	
Compound Present Compound	Present	Compound		Present	Sinking	Capital	Gradient	Gradient	
Amount Worth Amount Factor Factor	Amount Factor			Worth Factor	Fund Factor	Recovery Factor	Present Worth Factor	Uniform Series Factor	
To Find F To Find P To Find F To	To Find F		ا ا	To Find P	To Find A	To Find A	To Find P	To Find A	
P/F F/A	E/A		,	P/A	A/F	A/P	P/G	A/G	2
0.9975		1.0000		0.9975	1.0000	1.0025	0.000	0.0000	П
1.0050 0.9950 2.0025		2.0025 3.0075		1.9925	0.4994	0.5019	0.995	0.4994	С1 г
0.9901		4.0150		3.9751	0.2491	0.2516	5.950	1.4969	4
1.0126 0.9876 5.0251		5.0251		4.9627	0.1990	0.2015	9.901	1.9950	гC
0.9851		6.0376		5.9478	0.1656	0.1681	14.826	2.4927	9
0.9827		7.0527		6.9305	0.1418	0.1443	20.722	2.9900	<u></u>
1.0202 0.9802 8.0704 1.0227 0.9278 9.0905		8.0704		7.9107	0.1239	0.1264	27.584 35.406	3.4869	∞ ၁
0.9753	1	10.1133		9.8639	0.0989	0.1014	44.184	4.4794	10
1.0278 0.9729 11.1385	11.1385			10.8368	0.0898	0.0923	53.913	4.9750	11
0.9705		12.1664		11.8073	0.0822	0.0847	64.589	5.4702	12
0.9681		13.1968		12.7753	0.0758	0.0783	76.205	5.9650	13
1.0356 0.9656 14.2298 1.0382 0.9632 15.2654		14.2298 15.2654		13.7410 14.7042	0.0703	0.0728	88.759 102.244	6.4594 6.9534	14
1.0408 0.9608 16.3035		16.3035		15.6650	0.0613	0.0638	116.657	7.4469	16
0.9584		17.3443		16.6235	0.0577	0.0602	131.992	7.9401	17
1.0460 0.9561 18.3876		18.3876		17.5795	0.0544	0.0569	148.245	8.4328	18
0.9513		20.4822		19.4845	0.0488	0.0540	183.485	9.4170	20
1.0538 0.9489 21.5334		21.5334		20.4334	0.0464	0.0489	202.463	9.9085	21
0.9466		22.5872		21.3800	0.0443	0.0468	222.341	10.3995	22
0.9442		23.6437		22.3241	0.0423	0.0448	243.113	10.8901	53
1.0618 0.9418 24.7028 1.0644 0.9395 25.7646		24.7028 25.7646		23.2660 24.2055	0.0405 0.0388	0.0430 0.0413	264.775 287.323	11.3804 11.8702	25
0.9278 31.1133	31.1133		'	28.8679	0.0321	0.0346	413.185	14.3130	30
0.9140 37.6206	37.6206		.,	34.3865	0.0266	0.0291	592.499	17.2306	36
0.9050 42.0132	42.0132		m	38.0199	0.0238	0.0263	728.740	19.1673	40
1.1273 0.8871 50.9312 1.1616 0.8600 64.6467	50.9312		, -	45.1787	0.0196	0.0221	1040.055	23.0209	84 6
0.000%		04.040/		22.0224	0.0155	0.0100	1000.003	4107.07	00
0.8355		78.7794		65.8169	0.0127	0.0152	2265.557	34.4221	72
1.2334 0.8108 93.3419 1.2836 0.7700 113.4500	-	93.3419 113.4E00		75.6813	0.0107	0.0132	3029.759	40.0331	% 5 4 5
0.77		0004:011		400.0000	00000	0.0025	7171:747	47.4210	8 8

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	Single Payrr	ayment		Uniform Series	Series		Unifo	Uniform Gradient	
	Compound	Present	Compound	Present	Sinking	Capital	Gradient	Gradient	
	Amount Factor	Worth	Amount Factor	Worth Factor	Fund Factor	Recovery Factor	Present Worth Factor	Uniform Series Factor	
	To Find F	To Find P	To Find F	To Find P	To Find A	To Find A	To Find P	To Find A	
_	Given P	Given F	Given A	Given A	Given F	Given P	Given G	Given G	2
< ا	۳/۲	۳/۲	٨/٦	F/A	A/F	A/F	2/7	A/G	≥
	1.0050	0.9950	1.0000	0.9950	1.0000	1.0050	0.000	0.0000	1
7	1.0100	0.9901	2.0050	1.9851	0.4988	0.5038	0.660	0.4988	7
3	1.0151	0.9851	3.0150	2.9702	0.3317	0.3367	2.960	0.9967	3
4 rc	1.0202 1.0253	0.9802	4.0301 5.0503	3.9505 4.9259	0.2481 0.1980	0.2531 0.2030	5.901 9.803	1.4938 1.9900	4 rv
9	1.0304	0.9705	6.0755	5.8964	0.1646	0.1696	14.655	2.4855	9
_	1.0355	0.9657	7.1059	6.8621	0.1407	0.1457	20.449	2.9801	^
∞	1.0407	0.9609	8.1414	7.8230	0.1228	0.1278	27.176	3.4738	∞
6	1.0459	0.9561	9.1821	8.7791	0.1089	0.1139	34.824	3.9668	6
10	1.0511	0.9513	10.2280	9.7304	0.0978	0.1028	43.387	4.4589	10
1	1.0564	0.9466	11.2792	10.6770	0.0887	0.0937	52.853	4.9501	11
12	1.0617	0.9419	12.3356	11.6189	0.0811	0.0861	63.214	5.4406	12
13	1.0670	0.9372	13.3972	12.5562	0.0746	0.0796	74.460	5.9302	13
14	1.0723	0.9326	14.4642	13.4887	0.0691	0.0741	86.584	6.4190	14
Ŋ	1.0777	0.9279	15.5365	14.4166	0.0644	0.0694	99.574	6906.9	15
16	1.0831	0.9233	16.6142	15.3399	0.0602	0.0652	113.424	7.3940	16
17	1.0885	0.9187	17.6973	16.2586	0.0565	0.0615	128.123	7.8803	17
18	1.0939	0.9141	18.7858	17.1728	0.0532	0.0582	143.663	8.3658	18
19	1.0994	0.9096	19.8797	18.0824	0.0503	0.0553	160.036	8.8504	19
20	1.1049	0.9051	20.9791	18.9874	0.0477	0.0527	177.232	9.3342	20
21	1.1104	0.9006	22.0840	19.8880	0.0453	0.0503	195.243	9.8172	21
22	1.1160	0.8961	23.1944	20.7841	0.0431	0.0481	214.061	10.2993	22
23	1.1216	0.8916	24.3104	21.6757	0.0411	0.0461	233.677	10.7806	23
24	1.1272	0.8872	25.4320	22.5629	0.0393	0.0443	254.082	11.2611	24
5	1.1328	0.8828	26.5591	23.4456	0.0377	0.0427	275.269	11.7407	23
30	1.1614	0.8610	32.2800	27.7941	0.0310	0.0360	392.632	14.1265	30
36	1.1967	0.8356	39.3361	32.8710	0.0254	0.0304	557.560	16.9621	36
40	1.2208	0.8191	44.1588	36.1722	0.0226	0.0276	681.335	18.8359	40
48	1.2705	0.7871	54.0978	42.5803	0.0185	0.0235	929.919	22.5437	48
09	1.3489	0.7414	69.7700	51.7256	0.0143	0.0193	1448.646	28.0064	09
72	1.4320	0.6983	86.4089	60.3395	0.0116	0.0166	2012.348	33.3504	72
84	1.5204	0.6577	104.0739	68.4530	9600.0	0.0146	2640.664	38.5763	28
100	1.6467	0.6073	129.3337	78.5426	0.0077	0.0127	2562 703	15 3613	100
						0.0127	0000	47.0010	3

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	Uniform Gradient	Gradient Uniform Series Factor	To Find A Given G	A/G	0.0000	0.4981	1.4907	1.9851	2.4782	2.9701	3.4608	3.9502	F00F:F	4.9253	5.4110	5.8954	6.3786	00000	7.3413	7.8207	8.2989	8.7759	9.2516	9.7261	10.1994	10.6714	11.1422	11:011	13.9407	16.6946	18.5058	27.2665	32.2882	37.1357	43.3311	
	Unif	Gradient Present Worth Factor	To Find P Given G	P/G	0.000	0.985	5.853	9.706	14.487	20.181	26.775	34.254	44.000	51.817	61.874	72.763	84.472 96 988	000	110.297	124.389	139.249	154.867	171.230	188.325	206.142	224.668	243.892	700:007	373.263	524.992	637.469	1313.519	1791.246	2308.128	3040.745	
		Capital Recovery Factor	To Find A Given P	A/P	1.0075	0.5056	0.2547	0.2045	0.1711	0.1472	0.1293	0.1153	0.1042	0.0951	0.0875	0.0810	0.0755	70.70.0	0.0666	0.0629	0.0296	0.0567	0.0540	0.0516	0.0495	0.0475	0.0457	0.00	0.0373	0.0318	0.0290	0.0208	0.0180	0.0161	0.0143	0.0075
	Series	Sinking Fund Factor	To Find A Given F	A/F	1.0000	0.4981	0.2472	0.1970	0.1636	0.1397	0.1218	0.1078	0.000	0.0876	0.0800	0.0735	0.0680	2000.0	0.0591	0.0554	0.0521	0.0492	0.0465	0.0441	0.0420	0.0400	0.0382	0.000	0.0298	0.0243	0.0215	0.0133	0.0105	0.0086	0.0068	
= 3%	Uniform Series	Present Worth Factor	To Find P Given A	P/A	0.9926	7.97/7	3.9261	4.8894	5.8456	6.7946	7.7366	8.6716	0666.6	10.5207	11.4349	12.3423	13.2430	OWIT	15.0243	15.9050	16.7792	17.6468	18.5080	19.3628	20.2112	21.0533	21.8891	27:170	76.7751	34.4468	34.4469	48.1734	55.4768	62.1540	70.1746	133.3333
Discrete Compounding; i =		Compound Amount Factor	To Find F Given A	F/A	1.0000	2.0075	3.0226 4.0452	5.0756	6.1136	7.1595	8.2132	9.2748	C##C.01	11.4219	12.5076	13.6014	14.7034	10:01	16.9323	18.0593	19.1947	20.3387	21.4912	22.6524	23.8223	25.0010	26.1885	(FOC: 17	33.5029	41.1527	46.4464	75.4241	95.0070	116.4269	148.1445	
screte Con	ient	Present Worth Factor	To Find P Given F	P/F	0.9926	0.9852	0.9706	0.9633	0.9562	0.9490	0.9420	0.9350	0.7200	0.9211	0.9142	0.9074	0.9007	0.0	0.8873	0.8807	0.8742	0.8676	0.8612	0.8548	0.8484	0.8421	0.8358	0.000	0.7992	0.7641	0.7416	0.6387	0.5839	0.5338	0.4737	
TABLE C-3 Di	Single Payment	Compound Amount Factor	To Find F Given P	F/P	1.0075	1.0151	1.0303	1.0381	1.0459	1.0537	1.0616	1.0696	1.0770	1.0857	1.0938	1.1020	1.1103	0011:1	1.1270	1.1354	1.1440	1.1525	1.1612	1.1699	1.1787	1.1875	1.1964	F 007:1	1.2513	1.3086	1.3483	1.5657	1.7126	1.8732	2.1111	
TAB			:	2	₩ 6	7 0	v 4	5	9	^	∞ o	o 5	10	11	12	13	14 7	CT .	16	17	18	19	20	21	22	23	24 7	3 8	30	36	40	09	72	84	100	8

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	Single Payment	nent		Uniform Series	Series		Unifc	Uniform Gradient	
	Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
>	To Find F Given P F/P	To Find P Given F P/F	To Find F Given A F/A	To Find P Given A P/A	To Find A Given F A/F	To Find A Given P A/P	To Find P Given G P/G	To Find A Given G A/G	>
1 2	1.0100	0.9901	1.0000	0.9901	1.0000	1.0100 0.5075	0.000	0.0000	1 2
ε 4 г	1.0303 1.0406 1.0510	0.9706 0.9610 0.9515	3.0301 4.0604 5.1010	2.9410 3.9020 4.8534	0.3300 0.2463 0.1960	0.3400 0.2563 0.2060	2.922 5.804 9.610	0.9934 1.4876 1.9801	с 4 г
9 1	1.0615 1.0721	0.9420 0.9327	6.1520 7.2135	5.7955 6.7282	0.1625 0.1386	0.1725 0.1486	14.321 19.917	2.4710 2.9602	9
8 9 10	1.0829 1.0937 1.1046	0.9235 0.9143 0.9053	8.2857 9.3685 10.4622	7.6517 8.5660 9.4713	0.1207 0.1067 0.0956	$0.1307 \\ 0.1167 \\ 0.1056$	26.381 33.696 41.844	3.4478 3.9337 4.4179	8 9 10
11 21 22	1.1157 1.1268	0.8963 0.8874 0.8787	11.5668 12.6825 13.8093	10.3676 11.2551 12.1337	0.0865 0.0788 0.0724	0.0965 0.0888 0.0824	50.807 60.569 71 113	4.9005 5.3815 5.8607	11 22 23
14	1.1495 1.1610	0.8700 0.8613	14.9474 16.0969	13.0037	0.0621	0.0721	82.422 94.481	6.8143	14 15
16 17 18 19 20	1.1726 1.1843 1.1961 1.2081 1.2202	0.8528 0.8444 0.8360 0.8277 0.8195	17.2579 18.4304 19.6147 20.8109 22.0190	14.7179 15.5623 16.3983 17.2260 18.0456	0.0579 0.0543 0.0510 0.0481 0.0454	0.0679 0.0643 0.0610 0.0581 0.0554	107.273 120.783 134.996 149.895 165.466	7.2886 7.7613 8.2323 8.7017 9.1694	16 17 18 19 20
21 22 23 24 25	1.2324 1.2447 1.2572 1.2697 1.2824	0.8114 0.8034 0.7954 0.7876 0.7798	23.2392 24.4716 25.7163 26.9734 28.2432	18.8570 19.6604 20.4558 21.2434 22.0232	0.0430 0.0409 0.0389 0.0371 0.0354	0.0530 0.0509 0.0489 0.0471 0.0454	181.695 198.566 216.066 234.180 252.895	9.6354 10.0998 10.5626 11.0237 11.4831	22 23 24 25
30 36 40 48 60	1.3478 1.4308 1.4889 1.6122 1.8167	0.7419 0.6989 0.6717 0.6203 0.5504	34.7849 43.0769 48.8863 61.2226 81.6697	25.8077 30.1075 32.8346 37.9740 44.9550	0.0287 0.0232 0.0205 0.0163 0.0122	0.0387 0.0332 0.0305 0.0263 0.0222	355.002 494.621 596.856 820.146 1192.806	13.7557 16.4285 18.1776 21.5976 26.5333	30 36 40 48 60
84 84 87 87 87	2.0471 2.3067 2.7048	0.4885 0.4335 0.3697	104.7099 130.6723 170.4814	51.1504 56.6485 63.0289 100.0000	0.0096 0.0077 0.0059	0.0196 0.0177 0.0159 0.0100	1597.867 2023.315 2605.776	31.2386 35.7170 41.3426	5 8 00 8

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TAB	LE C-5 D	iscrete Com	TABLE C-5 Discrete Compounding; $i = 2\%$	= 2%					
	Single Payment	nent		Uniform Series	Series		Unife	Uniform Gradient	
	Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
2	To Find F Given P F/P	To Find P Given F P/F	To Find F Given A F/A	To Find P Given A P/A	To Find A Given F A/F	To Find A Given P A/P	To Find P Given G P/G	To Find A Given G A/G	>
1	1.0200	0.9804	1.0000	0.9804	1.0000	1.0200	0.000	0.0000	1
7	1.0404	0.9612	2.0200	1.9416	0.4950	0.5150	0.961	0.4950	2
3	1.0612	0.9423	3.0604	2.8839	0.3268	0.3468	2.846	0.9868	3
4 ro	1.0824 1.1041	0.9238 0.9057	4.1216 5.2040	3.8077 4.7135	0.2426 0.1922	0.2626 0.2122	5.617 9.240	1.4752 1.9604	4 ro
9	1.1262	0.8880	6.3081	5.6014	0.1585	0.1785	13.680	2.4423	9
^	1.1487	0.8706	7.4343	6.4720	0.1345	0.1545	18.904	2.9208	_
∞	1.1717	0.8535	8.5830	7.3255	0.1165	0.1365	24.878	3.3961	8
6	1.1951	0.8368	9.7546	8.1622	0.1025	0.1225	31.572	3.8681	6
10	1.2190	0.8203	10.9497	8.9826	0.0913	0.1113	38.955	4.3367	10
11	1.2434	0.8043	12.1687	9.7868	0.0822	0.1022	46.998	4.8021	11
12	1.2682	0.7885	13.4121	10.5753	0.0746	0.0946	55.671	5.2642	12
13	1.2936	0.7730	14.6803	11.3484	0.0681	0.0881	64.948	5.7231	13
14	1.3195	0.7579	15.9739	12.1062	0.0626	0.0826	74.800	6.1786	14
12	1.3459	0.7430	17.2934	12.8493	0.0578	0.0778	85.202	6.6309	15
16	1.3728	0.7284	18.6393	13.5777	0.0537	0.0737	96.129	7.0799	16
17	1.4002	0.7142	20.0121	14.2919	0.0500	0.0700	107.555	7.5256	17
18	1.4282	0.7002	21.4123	14.9920	0.0467	0.0667	119.458	7.9681	18
19	1.4568	0.6864	22.8406	15.6785	0.0438	0.0638	131.814	8.4073	19
77	1.4039	0.6730	74.2374	10.3314	0.0412	0.0012	144.000	0.0400	07
21	1.5157	0.6598	25.7833	17.0112	0.0388	0.0588	157.796	9.2760	21
22	1.5460	0.6468	27.2990	17.6580	0.0366	0.0566	171.380	9.7055	2 2
2.5 4.5	1.5769	0.6342	30.4219	18.9139	0.0347	0.0347	199 631	10.1317	2 2
25	1.6406	0.6095	32.0303	19.5235	0.0312	0.0512	214.259	10.9745	25
30	1.8114	0.5521	40.5681	22.3965	0.0246	0.0446	291.716	13.0251	30
36	2.0399	0.4902	51.9944	25.4888	0.0192	0.0392	392.041	15.3809	36
40	2.2080	0.4529	60.4020	27.3555	0.0166	0.0366	461.993	16.8885	40
48	2.5871	0.3865	79.3535	30.6731	0.0126	0.0326	605.966	19.7556	84 (
09	3.2810	0.3048	114.0515	34.7609	0.0088	0.0288	823.698	23.6961	09
72	4.1611	0.2403	158.0570	37.9841	0.0063	0.0263	1034.056	27.2234	72
84	5.2773	0.1895	213.8666	40.5255	0.0047	0.0247	1230.419	30.3616	\$
100	7.2446	0.1380	312.2323	43.0984	0.0032	0.0232	1464.753	33.9863	100
8				0000.00		0.0200			8

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	Single Payment	nent		Uniform Series	Series		Unito		
	Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
2	To Find F Given P F/P	To Find P Given F P/F	To Find F Given A F/A	To Find P Given A P/A	To Find A Given F A/F	To Find A Given P A/P	To Find P Given G P/G	To Find A Given G A/G	>
7	0000	00400	0000	00200	0000	1 0000	0000	0000	,
<u> </u>	1.0300	0.9709	1.0000	0.9709	1.0000	1.0300	0.000	0.0000	
7 (1.0609	0.9426	2.0300	1.9135	0.4926	0.5226	0.943	0.4926	. 1 (
η ₋	1.092/	0.9151	3.0909	7.7171	0.3233	0.3333	2.773	0.9803	', \
410	1.1593	0.8626	5.3091	4.5797	0.1884	0.2184	8.889	1.9409	4 rv
9	1.1941	0.8375	6.4684	5.4172	0.1546	0.1846	13.076	2.4138	0
^	1.2299	0.8131	7.6625	6.2303	0.1305	0.1605	17.955	2.8819	^
∞	1.2668	0.7894	8.8923	7.0197	0.1125	0.1425	23.481	3.3450	8
6	1.3048	0.7664	10.1591	7.7861	0.0984	0.1284	29.612	3.8032	6
10	1.3439	0.7441	11.4639	8.5302	0.0872	0.1172	36.309	4.2565	10
11	1.3842	0.7224	12.8078	9.2526	0.0781	0.1081	43.533	4.7049	11
12	1.4258	0.7014	14.1920	9.9540	0.0705	0.1005	51.248	5.1485	12
13	1.4685	0.6810	15.6178	10.6350	0.0640	0.0940	59.420	5.5872	13
14	1.5126	0.6611	17.0863	11.2961	0.0585	0.0885	68.014	6.0210	14
15	1.5580	0.6419	18.5989	11.93/9	0.0538	0.0838	77.000	6.4500	IS
16	1.6047	0.6232	20.1569	12.5611	0.0496	0.0796	86.348	6.8742	16
17	1.6528	0.6050	21.7616	13.1661	0.0460	0.0760	96.028	7.2936	17
18	1.7024	0.5874	23.4144	13.7535	0.0427	0.0727	106.014	7.7081	18
19	1.7535	0.5703	25.1169	14.3238	0.0398	0.0698	116.279	8.1179	19
20	1.8061	0.5537	26.8704	14.8775	0.0372	0.0672	126.799	8.5229	20
21	1.8603	0.5375	28.6765	15.4150	0.0349	0.0649	137.550	8.9231	21
22	1.9161	0.5219	30.5368	15.9369	0.0327	0.0627	148.509	7.3186	22
23	1.9736	0.5067	32.4529	16.4436	0.0308	0.0608	159.657	9.7093	23
24	2.0328	0.4919	34.4265	16.9355	0.0290	0.0590	170.971	10.0954	24
25	2.0938	0.4776	36.4593	17.4131	0.0274	0.0574	182.434	10.4768	23
30	2.4273	0.4120	47.5754	19.6004	0.0210	0.0510	241.361	12.3141	30
35	2.8139	0.3554	60.4621	21.4872	0.0165	0.0465	301.627	14.0375	35
40	3.2620	0.3066	75.4012	23.1148	0.0133	0.0433	361.750	15.6502	40
45	3.7816	0.2644	92.7199	24.5187	0.0108	0.0408	420.633	17.1556	45
20	4.3839	0.2281	112.7969	25.7298	0.0089	0.0389	477.480	18.5575	20
09	5.8916	0.1697	163.0534	27.6756	0.0061	0.0361	583.053	21.0674	09
80	10.6409	0.0940	321.3630	30.2008	0.0031	0.0331	756.087	25.0353	80
100	19.2186	0.0520	607.2877	31.5989	0.0016	0.0316	879.854	27.8444	100
8				33.3333		0.0300			8

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	Single Payr	ayment	tuem,	Uniform Series	Sprips		l Inife	Uniform Gradient	
	Olligie Layii				COLLOS			Olin Gladient	
	Compound Amount	Present Worth	Compound Amount	Present Worth	Sinking Fund	Capital Recovery	Gradient Present Worth	Gradient Uniform Series	
	Factor	Factor	Factor	Factor	Factor	Factor	Factor	Factor	
	To Find F	To Find P	To Find F	To Find P	To Find A	To Find A	To Find P	To Find A	
	Given P	Given F	Given A	Given A	Given F	Given P	Given G	Given G	
2	F/P	P/F	F/A	P/A	A/F	A/P	P/G	A/G	>
1	1.0400	0.9615	1.0000	0.9615	1.0000	1.0400	0.000	0.0000	1
7	1.0816	0.9246	2.0400	1.8861	0.4902	0.5302	0.925	0.4902	2
8	1.1249	0.8890	3.1216	2.7751	0.3203	0.3603	2.703	0.9739	33
4	1.1699	0.8548	4.2465	3.6299	0.2355	0.2755	5.267	1.4510	4
5	1.2167	0.8219	5.4163	4.4518	0.1846	0.2246	8.555	1.9216	5
9	1.2653	0.7903	6.6330	5.2421	0.1508	0.1908	12.506	2.3857	9
^	1.3159	0.7599	7.8983	6.0021	0.1266	0.1666	17.066	2.8433	^
∞	1.3686	0.7307	9.2142	6.7327	0.1085	0.1485	22.181	3.2944	∞
6	1.4233	0.7026	10.5828	7.4353	0.0945	0.1345	27.801	3.7391	6
10	1.4802	0.6756	12.0061	8.1109	0.0833	0.1233	33.881	4.1773	10
11	1.5395	0.6496	13.4864	8.7605	0.0741	0.1141	40.377	4.6090	11
12	1.6010	0.6246	15.0258	9.3851	0.0666	0.1066	47.248	5.0343	12
13	1.6651	0.6006	16.6268	9:3826	0.0601	0.1001	54.455	5.4533	13
14	1.7317	0.5775	18.2919	10.5631	0.0547	0.0947	61.962	5.8659	14
15	1.8009	0.5553	20.0236	11.1184	0.0499	0.0899	69.736	6.2721	15
16	1.8730	0.5339	21.8245	11.6523	0.0458	0.0858	77.744	6.6720	16
17	1.9479	0.5134	23.6975	12.1657	0.0422	0.0822	85.958	7.0656	17
18	2.0258	0.4936	25.6454	12.6593	0.0390	0.0200	94.350	7.4530	18
19	2.1068	0.4746	27.6712	13.1339	0.0361	0.0761	102.893	7.8342	19
20	2.1911	0.4564	29.7781	13.5903	0.0336	0.0736	111.565	8.2091	70
21	2.2788	0.4388	31.9692	14.0292	0.0313	0.0713	120.341	8.5779	21
22	2.3699	0.4220	34.2480	14.4511	0.0292	0.0692	129.202	8.9407	22
23	2.4647	0.4057	36.6179	14.8568	0.0273	0.0673	138.128	9.2973	23
24	2.5633	0.3901	39.0826	15.2470	0.0256	0.0656	147.101	9.6479	24
25	2.6658	0.3751	41.6459	15.6221	0.0240	0.0640	156.104	9.9925	22
30	3.2434	0.3083	56.0849	17.2920	0.0178	0.0578	201.062	11.6274	30
35	3.9461	0.2534	73.6522	18.6646	0.0136	0.0536	244.877	13.1198	35
40	4.8010	0.2083	95.0255	19.7928	0.0105	0.0505	286.530	14.4765	40
45	5.8412	0.1712	121.0294	20.7200	0.0083	0.0483	325.403	15.7047	45
20	7.1067	0.1407	152.6671	21.4822	0.0066	0.0466	361.164	16.8122	20
09	10.5196	0.0951	237.9907	22.6235	0.0042	0.0442	422.997	18.6972	09
80	23.0498	0.0434	551.2450	23.9154	0.0018	0.0418	511.116	21.3718	80
100	50.5049	0.0198	1237.6237	24.5050	0.0008	0.0408	563.125	22.9800	100
8				25.0000		0.0400			8

Present Compound Present Sinking Capital Gradient Gradient Gradient Factor A/G		Single Payment	nent		Uniform Series	Series		Unife	Uniform Gradient	
To Find F To Find F To Find F To Find A To Good B To Find A To Find A To Good B To Good B To Find A To Find A To Find A To Good B To Good B <t< th=""><th></th><th>Compound Amount Factor</th><th>Present Worth Factor</th><th>Compound Amount Factor</th><th>Present Worth Factor</th><th>Sinking Fund Factor</th><th>Capital Recovery Factor</th><th>Gradient Present Worth Factor</th><th>Gradient Uniform Series Factor</th><th></th></t<>		Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
1,000 0,954 1,000 0,954 1,000 0,954 1,000 0,955 1,000 0,95	>	To Find F Given P F/P	To Find P Given F P/F	To Find F Given A F/A	To Find P Given A P/A	To Find A Given F A/F	To Find A Given P A/P	To Find P Given G P/G	To Find A Given G A/G	>
1,1050 0,9524 1,0000 0,9524 1,0000 0,0000 0,0000 1,11025 0,9573 2,0500 0,9672 0,0000 0,0000 0,0000 1,11576 0,8628 3,1525 2,7232 0,3172 0,3672 2,635 0,9675 0,4878 1,1576 0,8827 4,3101 3,5460 0,2320 0,2820 2,635 0,9675 1,2763 0,7835 5,5256 4,3201 3,5461 0,1230 0,1970 11,968 2,3579 1,4971 0,707 8,1420 5,7844 0,1232 0,1970 11,968 2,3579 1,4971 0,6768 9,5491 6,4620 0,1047 0,1970 1,1978 1,1407 1,1407 1,1407 1,1407 1,1407 1,1407 1,1407 1,1407 1,1407 1,1407 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439 1,1439	2			5/-	V/ -	à	7,0	5	5 (2
1.1562 0.3479 0.2522 0.3472 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3445 0.3447 0.3447 0.3447 0.3447 0.3447 0.3445 0	т с	1.0500	0.9524	1.0000	0.9524	1.0000	1.0500	0.000	0.0000	1 0
12155 0.8227 4.3101 3.5460 0.2220 5.103 5.1491 1.4391 1.2768 0.7835 6.8019 5.6256 4.3205 0.1470 0.1902 5.103 1.4391 1.3401 0.7402 6.8019 5.0757 0.1470 0.1547 1.1968 2.3579 1.4977 0.6768 9.491 6.4632 0.1047 0.1407 1.1968 2.3579 1.6289 0.6139 1.10266 7.1078 0.0907 0.1407 2.0970 3.2445 1.6289 0.639 1.2779 0.0907 0.1407 2.0970 3.2458 1.7739 0.5568 1.5917 8.8633 0.0628 0.1105 4.5149 4.5149 1.7739 0.5568 1.5917 8.8633 0.0628 0.1106 4.5149 4.5144 1.7739 0.5568 1.5917 8.8633 0.0628 0.1106 4.5249 4.5144 1.8789 0.5668 1.5917 8.8633 0.0628 0.1166 </td <td>1 κ</td> <td>1.1576</td> <td>0.8638</td> <td>3.1525</td> <td>2.7232</td> <td>0.3172</td> <td>0.3672</td> <td>2.635</td> <td>0.9675</td> <td>4 κ</td>	1 κ	1.1576	0.8638	3.1525	2.7232	0.3172	0.3672	2.635	0.9675	4 κ
1.300 0.702 5.0250 0.1020 0.0230 0.11968 2.3579 1.3407 0.7107 8.1420 5.7840 0.1128 16.232 2.3879 1.4077 0.7107 8.1420 5.7842 0.1047 0.1134 2.0970 2.3457 1.4077 0.6446 1.10.066 7.1078 0.01997 0.11497 2.0970 2.3455 1.6289 0.6639 1.25779 7.7217 0.0704 0.1297 31.652 4.0991 1.7103 0.5847 1.42068 8.3064 0.0704 0.1204 37.499 4.5144 1.7299 0.5056 1.57130 9.386 0.0628 0.1128 4.4514 4.9219 1.8799 0.5051 1.9788 9.8863 0.0628 0.1106 4.9219 4.5144 1.9799 0.5051 1.9788 9.8966 0.0510 0.1106 5.654 4.5144 2.1789 0.4810 2.1.578 1.0.3878 0.0628 0.0112 4.5144	4 п	1.2155	0.8227	4.3101	3.5460	0.2320	0.2820	5.103	1.4391	4 п
1.770 0.7762 0.0717 0.1702 0.0717 </td <td>) 4</td> <td>1 2401</td> <td>0.7460</td> <td>90200</td> <td>E 0757</td> <td>0.1470</td> <td>0.1070</td> <td>11 069</td> <td>2 3570</td> <td>۷ (</td>) 4	1 2401	0.7460	90200	E 0757	0.1470	0.1070	11 069	2 3570	۷ (
1,4771 0,710 0,712 0,712 0,702 2,500 1,4773 0,6446 1,1026 7,1078 0,0907 0,147 26,127 3,678 1,6289 0,6446 1,1026 7,7217 0,0794 0,1295 31,652 4,0991 1,6289 0,6439 1,25779 7,7217 0,0704 0,1204 37,499 4,5144 1,703 0,5868 1,59171 8,8633 0,0656 0,1128 4,928 5,2115 1,7959 0,5601 1,5978 0,0760 0,1010 5,654 4,5144 1,7979 0,4581 2,5840 1,0794 0,0663 6,4328 6,0973 2,1820 0,4581 2,5840 11,2741 0,0387 0,0887 8,204 5,7133 2,1820 0,4363 2,5840 11,2741 0,0387 0,0887 8,420 6,4736 2,2220 0,4363 2,5840 11,2741 0,0387 0,0887 8,436 7,569 2,6233	10	1.3401	0.7462	6.0019	787.27	0.1470	0.1970	11.900	7.8052	10
1.5513 0.6446 11.0266 7.1078 0.0907 0.1407 26.127 3.6758 1.6289 0.6139 12.5779 7.7217 0.0795 0.1295 31.652 4.0991 1.703 0.6384 14.2068 8.3064 0.0704 0.1128 45.624 4.9219 1.7959 0.5568 15.9171 8.8633 0.0565 0.1128 45.624 4.9219 1.8856 0.5308 17.7130 9.3936 0.01663 0.1010 56.554 4.9219 1.8856 0.5301 17.7130 9.3936 0.0565 0.1063 4.9218 4.5114 1.9799 0.4581 2.15786 10.3797 0.0463 0.0903 7.141 6.073 2.1829 0.4458 2.58404 11.2741 0.0937 0.0823 8.208 6.238 5.218 2.1829 0.44166 0.4158 2.8404 11.2741 0.0937 7.741 6.4336 6.273 2.2820 0.3458 2.5404 <td< td=""><td>, oc</td><td>1.4775</td><td>0.6768</td><td>9.5491</td><td>6.4632</td><td>0.1047</td><td>0.1547</td><td>16.232</td><td>3.2445</td><td>、 ∞</td></td<>	, oc	1.4775	0.6768	9.5491	6.4632	0.1047	0.1547	16.232	3.2445	、 ∞
1.6289 0.6139 12.5779 7.7217 0.0795 0.1295 31.652 4.0991 1.7703 0.584 14.2068 8.3064 0.0704 0.1204 37.499 4.5144 1.7959 0.5568 115.9171 8.8633 0.0628 0.1128 43.624 4.9219 1.8956 0.5303 17.736 9.3936 0.0556 0.1065 49.988 5.3215 2.0789 0.4810 21.5786 10.3797 0.0463 6.554 5.7133 2.0789 0.4810 21.5786 10.3797 0.0463 6.0583 6.0973 2.0789 0.4810 21.5786 10.3797 0.0463 0.0963 63.288 6.0973 2.2920 0.4581 25.8404 11.2741 0.0387 0.0887 77.141 6.8423 2.2920 0.4563 25.8404 11.2741 0.0387 0.0887 77.141 6.8423 2.2227 0.3320 28.33060 12.4622 0.0397 0.0897 77.2434	6	1.5513	0.6446	11.0266	7.1078	0.0907	0.1407	26.127	3.6758	6
1,7103 0.5847 14,2068 8,3064 0,0704 0,1204 37,499 4,5144 1,7959 0.5568 15,971 8,8633 0,0628 0,1128 43,624 4,9219 1,9799 0.5503 17,713 9,3936 0,0655 0,1106 49,988 5,3215 2,0789 0.6051 19,586 9,8986 0,0510 0,1010 56,544 5,7133 2,0789 0.4810 21,5786 10,3797 0,0463 0,0963 6,928 6,0973 2,1829 0.44581 25,8404 11,2741 0,0387 0,0887 77,141 6,8423 2,2920 0.4458 25,8404 11,2741 0,0387 0,0887 77,141 6,8423 2,2920 0.4155 28,1324 11,2741 0,0387 0,0887 77,141 6,8423 2,2920 0.4156 32,5390 12,4622 0,0387 0,0887 77,141 6,8423 2,2840 0.2253 13,1630 0,0260 0,0887	10	1.6289	0.6139	12.5779	7.7217	0.0795	0.1295	31.652	4.0991	10
1,7959 0,5568 15,9171 8,8633 0,0628 0,1128 43,624 4,9219 1,8856 0,5303 17,733 9,3956 0,0565 0,1065 49,988 5,3215 1,8856 0,551 19,5986 0,0561 0,0101 56,554 5,7133 2,0789 0,4810 2,15786 10,387 0,0463 0,0963 65,288 6,0973 2,1829 0,4810 23,6575 10,8378 0,0463 0,0983 70,160 6,4736 2,2820 0,4366 25,840 11,2741 0,0387 0,0887 77,141 6,8423 2,4066 0,4155 28,1324 11,6896 0,0355 0,0887 77,141 6,8423 2,4066 0,4156 28,1324 11,6896 0,0327 0,0887 77,141 6,8423 2,5270 0,3957 33,0660 12,4622 0,0320 0,0887 77,141 6,8423 2,7860 0,3359 12,2422 0,0220 0,0820 98,488	11	1.7103	0.5847	14.2068	8.3064	0.0704	0.1204	37.499	4.5144	11
1,8856 0,5303 17,7130 9,3936 0,0565 0,1065 49,988 5,3215 1,9799 0,5051 19,5986 9,8986 0,0510 0,0100 56,554 5,7133 2,0789 0,4810 21,5786 10,3797 0,0463 0,0963 6,4736 6,4736 2,1829 0,4451 22,58404 11,2741 0,0487 0,0987 77,140 6,4736 2,2920 0,4455 28,1324 11,2841 0,0423 0,0987 77,141 6,4736 2,5270 0,456 28,1324 11,2841 0,0357 0,0887 77,141 6,4736 2,5270 0,456 33,060 12,4622 0,0327 0,0887 77,141 6,8423 2,5270 0,358 33,060 12,4622 0,0320 9,6848 7,5030 2,5270 0,348 33,060 12,4622 0,0320 0,0820 9,488 7,5030 2,5273 0,348 13,486 0,0260 0,0760 112,846	12	1.7959	0.5568	15.9171	8.8633	0.0628	0.1128	43.624	4.9219	12
19799 0.5651 19,588 9,8886 0.0510 0.1010 56,554 5,7133 2.0789 0.4810 21,5786 10,3797 0.0463 0.0963 65.288 6.0973 2.1829 0.4581 23,6575 10,8378 0.0423 70,160 6,4736 2.2920 0.4563 25,8404 11,2741 0.0387 77,141 6,8423 2.2920 0.44563 28,1324 11,2896 0.0385 90,848 7,5034 2.5270 0.3957 33,0660 12,4622 0.0302 0.0807 77,141 6,8423 2.5270 0.3769 35,660 12,4622 0.0302 0.0802 98,488 7,9030 2.9253 0.3418 38,5052 13,1630 0.0260 0.0760 112,846 8,5730 3.0715 0.3256 41,4305 13,4886 0.0241 0.0741 120,009 8,8971 3.2510 0.1813 90,3203 13,7886 0.0241 0.0710 134,228 13,488 </td <td>13</td> <td>1.8856</td> <td>0.5303</td> <td>17.7130</td> <td>9:3936</td> <td>0.0565</td> <td>0.1065</td> <td>49.988</td> <td>5.3215</td> <td>13</td>	13	1.8856	0.5303	17.7130	9:3936	0.0565	0.1065	49.988	5.3215	13
2.1829 0.4581 23.6575 10.8378 0.0423 0.0923 70.160 6.4736 2.1829 0.4583 23.6575 10.8378 0.0423 0.0923 70.160 6.4736 2.200 0.4363 25.8404 11.2741 0.0387 0.0887 77.141 6.8423 2.4066 0.4155 28.1324 11.6896 0.0327 0.0827 91.328 7.5094 2.5270 0.3957 30.5390 12.0852 0.0327 0.0827 91.328 7.5090 2.5270 0.3958 33.0660 12.4622 0.0327 0.0802 98.488 7.9030 2.9253 0.3418 38.5052 13.1630 0.0260 0.0760 112.846 8.5730 3.0715 0.3264 41.4305 13.486 0.0221 0.0720 127.140 9.2140 3.2251 0.3101 44.502 13.7986 0.0225 0.0725 127.140 9.5238 4.3219 0.253 47.7271 14.0939 0.011 <td>14 7</td> <td>1.9799</td> <td>0.5051</td> <td>19.5986</td> <td>9.8986</td> <td>0.0510</td> <td>0.1010</td> <td>56.554</td> <td>5.7133</td> <td>14 15</td>	14 7	1.9799	0.5051	19.5986	9.8986	0.0510	0.1010	56.554	5.7133	14 15
2.1829 0.4581 23.6575 10.8378 0.0423 0.0923 70.160 6.4736 2.2920 0.4363 25.8404 11.2741 0.0387 0.0887 70.160 6.4736 2.2920 0.4363 25.8404 11.2741 0.0387 0.0887 77.141 6.8423 2.5270 0.4363 36.5390 12.0853 0.0327 0.0827 91.328 7.5569 2.5270 0.3589 35.7193 12.4622 0.0320 0.0827 98.488 7.9030 2.7860 0.3589 35.7193 12.8212 0.0260 0.0760 112.846 8.2416 2.9253 0.3101 44.5020 13.786 0.0240 0.0760 112.846 8.5730 3.2251 0.3101 44.5020 13.786 0.0210 0.0710 134.228 9.5238 3.251 0.234 47.7271 14.099 0.0210 0.0710 134.228 9.5245 4.3219 0.1420 120.798 15.3725 0.0151 <td>3</td> <td>70.70:1</td> <td>0.1010</td> <td>7</td> <td>1710:01</td> <td>0.0</td> <td>00000</td> <td>007:00</td> <td>0.000</td> <td>3</td>	3	70.70:1	0.1010	7	1710:01	0.0	00000	007:00	0.000	3
2.2920 0.4363 2.58404 11.2741 0.0387 77.141 6.8423 2.24066 0.4155 25.8404 11.2741 0.0387 77.141 6.8423 2.24066 0.4155 28.1324 11.6896 0.0355 0.0855 84.204 7.5364 2.25270 0.3957 30.5390 12.0853 0.0327 0.0802 98.488 7.9030 2.7860 0.3769 33.0660 12.4622 0.0380 0.0780 105.667 8.2416 2.7860 0.3789 38.5052 13.1636 0.0241 0.0760 112.846 8.5730 3.0715 0.3418 38.5052 13.7886 0.0241 10.0761 120.099 8.8971 3.2251 0.3101 44.5020 13.7986 0.0210 0.0741 120.099 8.8971 4.3219 0.2314 66.4388 15.3725 0.0111 0.0651 134.228 12.2498 7.0400 0.1420 120.7998 17.7591 0.0063 0.0563 <	16	2.1829	0.4581	23.6575	10.8378	0.0423	0.0923	70.160	6.4736	16
2.4066 0.4155 28.1324 11.6896 0.0355 0.0355 84.204 7.2034 2.5270 0.3957 30.5390 12.0853 0.0327 0.0802 98.488 7.5569 2.5270 0.3769 33.0660 12.4622 0.0320 0.0802 98.488 7.9030 2.5273 0.3769 33.0660 12.4622 0.0280 0.0760 105.667 8.2416 2.9253 0.3418 38.5052 13.1630 0.0260 0.0760 112.846 8.5730 3.0715 0.3256 41.4305 13.4886 0.0241 0.0741 120.009 8.8971 3.2251 0.3101 44.5020 13.7986 0.0275 127.140 9.5238 3.3864 0.2953 47.7271 14.0939 0.0210 0.0710 134.228 9.5238 4.3219 0.2314 66.4388 15.3725 0.0151 0.0541 200.581 12.2498 7.0400 0.1131 159.7002 17.7741 0.0063	17	2.2920	0.4363	25.8404	11.2741	0.0387	0.0887	77.141	6.8423	17
2.5270 0.3957 30.5390 12.0833 0.0327 0.0827 91.328 7.5569 2.6533 0.3769 33.0660 12.4622 0.0302 0.0802 98.488 7.9030 2.7860 0.3769 35.7193 12.8212 0.0280 0.0760 112.846 8.2416 2.9253 0.3418 38.5052 13.1630 0.0260 0.0760 112.846 8.5730 3.0715 0.3256 41.4305 13.486 0.0241 0.0741 120.009 8.8971 3.3251 0.3101 44.5020 13.7986 0.0225 0.0725 120.009 8.8971 3.3251 0.2953 47.7271 14.0939 0.0210 0.0710 134.228 9.5238 4.3219 0.2314 66.4388 15.3725 0.0151 0.0651 168.623 10.9691 7.0400 0.1420 120.7988 17.154 0.0083 229.545 113.3475 8.9850 0.1113 15.2702 17.7741 0.00648 <t< td=""><td>18</td><td>2.4066</td><td>0.4155</td><td>28.1324</td><td>11.6896</td><td>0.0355</td><td>0.0855</td><td>84.204</td><td>7.2034</td><td>18</td></t<>	18	2.4066	0.4155	28.1324	11.6896	0.0355	0.0855	84.204	7.2034	18
2.7850 0.3769 35.0000 12.4622 0.0302 0.0802 95.488 7.9030 2.7860 0.3589 35.7193 12.8212 0.0280 0.0780 105.667 8.2416 2.9253 0.3418 38.5052 13.1630 0.0260 0.0760 112.846 8.5730 3.0715 0.3256 41.4305 13.4886 0.0221 0.0741 120.009 8.8971 3.251 0.3101 44.5020 13.7986 0.0225 0.0725 127.140 9.2140 3.3864 0.2953 47.7271 14.0939 0.0210 0.0710 134.228 9.5238 4.3219 0.2314 66.4388 15.3725 0.0151 0.0651 168.623 10.9691 7.0400 0.1813 90.3203 16.3742 0.0111 0.0653 229.545 13.3775 8.9850 0.1113 159.7002 17.7741 0.0063 0.0563 277.915 14.3644 11.4674 0.0872 29.3480 18.259 <	F 6	2.5270	0.3957	30.5390	12.0853	0.0327	0.0827	91.328	7.5569	5 6
2.7860 0.3589 35.7193 12.8212 0.0280 0.0780 105.667 8.2416 2.9253 0.3418 38.5052 13.1630 0.0260 0.0760 112.846 8.5730 3.0715 0.3256 41.4305 13.4886 0.0241 0.0741 120.009 8.8971 3.251 0.3101 44.5020 13.7986 0.0225 0.0725 127.140 9.2140 3.3864 0.2953 47.7271 14.0939 0.0210 0.0710 134.228 9.5238 4.3219 0.2314 66.4388 15.3725 0.0151 0.0651 134.228 9.5238 7.0400 0.1813 90.3203 16.3742 0.0111 0.0651 16.8623 10.9691 8.9850 0.1113 159.7002 17.741 0.0083 0.0563 229.545 14.3644 11.4674 0.0872 209.3480 18.2599 0.0048 0.0548 277.915 15.2233 18.6792 0.0012 971.2288 19.565	70	2.6533	0.3769	33.0660	12.4622	0.0302	0.0802	98.488	7.9030	70
2.9253 0.3418 38.5052 13.1630 0.0260 0.0760 112.846 8.5730 3.0715 0.3256 41.4305 13.4886 0.0241 0.0741 120.009 8.8971 3.2751 0.3101 44.5020 13.7986 0.0225 0.0725 127.140 9.2140 3.3864 0.2953 47.7271 14.0939 0.0210 0.0710 134.228 9.5238 4.3219 0.2314 66.4388 15.3725 0.0151 0.0651 168.623 10.9691 7.0400 0.11813 90.3203 16.3742 0.0111 0.0651 229.545 13.3775 8.9850 0.1113 159.7002 17.7741 0.0063 0.0563 225.315 14.3644 11.4674 0.0872 209.3480 18.2559 0.0048 0.0548 277.915 15.2233 18.6792 0.0710 0.0548 0.0548 0.0548 16.5062 16.6062 11.4674 0.0253 353.5837 19.5965 0.0010	21	2.7860	0.3589	35.7193	12.8212	0.0280	0.0780	105.667	8.2416	21
3.0715 0.3256 41.4305 13.4886 0.0241 0.0741 120.009 8.8971 3.2251 0.3101 44.5020 13.7986 0.0225 0.0725 127.140 9.2140 3.3864 0.2953 47.7271 14.0939 0.0210 0.0710 134.228 9.5238 4.3219 0.2314 66.4388 15.3725 0.0151 0.0651 168.623 10.9691 7.0400 0.11813 90.3203 16.3742 0.0111 0.0651 229.545 13.3775 8.9850 0.1113 159.7002 17.7741 0.0063 0.0563 229.545 14.3644 11.4674 0.0872 209.3480 18.2559 0.0048 0.0548 277.915 15.2233 18.6792 0.053 335.5837 18.9293 0.00028 0.0548 277.915 16.6062 49.5614 0.0076 2610.0252 19.8479 0.0004 0.0504 381.749 19.2337 1	22	2.9253	0.3418	38.5052	13.1630	0.0260	0.0760	112.846	8.5730	22
3.2251 0.3101 44.5020 13.7986 0.0225 0.0725 127.140 9.2140 3.3864 0.2953 47.7271 14.0939 0.0210 0.0710 134.228 9.5238 4.3219 0.2314 66.4388 15.3725 0.0151 0.0651 168.623 10.9691 7.0400 0.11813 90.3203 16.3742 0.0111 0.0653 229.545 13.275 8.9850 0.1113 159.7002 17.7741 0.0063 0.0563 229.545 13.3775 11.4674 0.0872 209.3480 18.2559 0.0048 0.0548 277.915 15.2233 18.6792 0.0535 333.5837 18.9293 0.0028 0.0548 277.915 16.6062 49.5614 0.0076 2610.0252 19.8479 0.0004 0.0504 381.749 19.2337 1	23	3.0715	0.3256	41.4305	13.4886	0.0241	0.0741	120.009	8.8971	23
3.3864 0.2953 47.7271 14.0939 0.0210 0.0710 134.228 9.5238 4.3219 0.2314 66.4388 15.3725 0.0151 0.0651 168.623 10.9691 5.5160 0.1813 90.3203 16.3742 0.0111 0.0611 200.581 12.2498 7.0400 0.1420 120.7998 17.1591 0.0063 229.545 13.3775 8.9850 0.1113 159.7002 17.741 0.0063 255.315 14.3644 11.4674 0.0872 209.3480 18.2559 0.0048 0.0548 277.915 15.2233 18.6792 0.053 314.343 16.6062 15.2233 49.5614 0.0076 2610.0252 19.8479 0.0004 0.0504 381.749 19.2337 1	24	3.2251	0.3101	44.5020	13.7986	0.0225	0.0725	127.140	9.2140	24
4.3219 0.2314 66.4388 15.3725 0.0151 0.0651 168.623 10.9691 5.5160 0.1813 90.3203 16.3742 0.0111 0.0611 200.581 12.2498 7.0400 0.1420 120.7998 17.1591 0.0083 0.0583 229.545 13.3775 8.9850 0.1113 159.7002 17.7741 0.0063 0.0563 255.315 14.3644 11.4674 0.0872 209.3480 18.2559 0.0048 0.0548 277.915 15.2233 18.6792 0.0533 353.5837 18.9293 0.0028 0.0528 314.343 16.6062 49.5614 0.0076 2610.0252 19.8479 0.0004 381.749 19.2337 1	25	3.3864	0.2953	47.7271	14.0939	0.0210	0.0710	134.228	9.5238	25
5.5160 0.1813 90.3203 16.3742 0.0111 0.0611 200.581 12.2498 7.0400 0.1420 120.7998 17.1591 0.0083 0.0583 229.545 13.3775 8.9850 0.1113 159.7002 17.7741 0.0063 0.0563 255.315 14.3644 11.4674 0.0872 209.3480 18.2559 0.0048 0.0548 277.915 15.2233 18.6792 0.0535 353.5837 18.9293 0.0028 0.0528 314.343 16.6062 49.5614 0.0076 2610.0252 0.0004 0.0504 381.749 19.2337 1	30	4.3219	0.2314	66.4388	15.3725	0.0151	0.0651	168.623	10.9691	30
7.0400 0.1420 120.7998 17.1591 0.0083 0.0583 229.545 13.3775 8.9850 0.1113 159.7002 17.7741 0.0063 0.0563 255.315 14.3644 11.4674 0.0872 209.3480 18.2559 0.0048 0.0548 277.915 15.2233 18.6792 0.0535 353.5837 18.9293 0.0028 0.0528 314.343 16.6062 49.5614 0.0202 971.2288 19.5965 0.0010 0.0510 359.646 18.3526 131.5013 0.0076 2610.0252 19.8479 0.0004 381.749 19.2337 1	35	5.5160	0.1813	90.3203	16.3742	0.0111	0.0611	200.581	12.2498	35
8.9850 0.1113 159.7002 17.7741 0.0063 0.0563 255.315 14.3644 11.4674 0.0872 209.3480 18.2559 0.0048 0.0548 277.915 15.2233 18.6792 0.0535 353.5837 18.9293 0.0028 0.0528 314.343 16.6062 49.5614 0.0202 971.2288 19.5965 0.0010 0.0504 381.749 19.2337 1 131.5013 0.0076 2610.0252 19.8479 0.0004 381.749 19.2337 1	40	7.0400	0.1420	120.7998	17.1591	0.0083	0.0583	229.545	13.3775	40
11.4674 0.0872 209.3480 18.2559 0.0048 0.0548 277.915 15.2233 18.6792 0.0535 353.5837 18.9293 0.0028 0.0528 314.343 16.6062 49.5614 0.0202 971.2288 19.5965 0.0010 0.0510 359.646 18.3526 131.5013 0.0076 2610.0252 19.8479 0.0004 0.0504 381.749 19.2337 1	45	8.9850	0.1113	159.7002	17.7741	0.0063	0.0563	255.315	14.3644	45
18.6792 0.0535 353.5837 18.9293 0.0028 0.0528 314.343 16.6062 49.5614 0.0202 971.2288 19.5965 0.0010 0.0510 359.646 18.3526 131.5013 0.0076 2610.0252 19.8479 0.0004 0.0504 381.749 19.2337 1	20	11.4674	0.0872	209.3480	18.2559	0.0048	0.0548	277.915	15.2233	20
49.5614 0.0202 971.2288 19.5865 0.0010 0.0510 359.646 18.5526 131.5013 0.0076 2610.0252 19.8479 0.0004 0.0504 381.749 19.2337 1	09	18.6792	0.0535	353.5837	18.9293	0.0028	0.0528	314.343	16.6062	09
131.5013 0.0076 2610.0252 19.8479 0.0004 0.0064 381.749 19.2337	80	49.5614	0.0202	971.2288	19.5965	0.0010	0.0510	359.646	18.3526	86
	100	131.5013	0.0076	2610.0252	19.8479	0.0004	0.0504	381.749	19.2337	100

TAB	SLE C-9 D	iscrete Com	TABLE C-9 Discrete Compounding; $i = 6\%$	%9 =					
	Single Payment	nent		Uniform Series	Series		Unife	Uniform Gradient	
	Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
2	To Find F Given P	To Find P Given F	To Find F Given A	To Find P Given A	To Find A Given F	To Find A Given P	To Find P Given G	To Find A Given G	2
2	1/1		V/1	۲/۲	1/4	L/X	0/1	5/5	2
1 0	1.0600	0.9434	1.0000	0.9434	1.0000	1.0600	0.000	0.0000	1 0
1 W	1.1910	0.8396	3.1836	2.6730	0.3141	0.3741	2.569	0.9612	1 W
4	1.2625	0.7921	4.3746	3.4651	0.2286	0.2886	4.946	1.4272	4
5	1.3382	0.7473	5.6371	4.2124	0.1774	0.2374	7.935	1.8836	5
9	1.4185	0.7050	6.9753	4.9173	0.1434	0.2034	11.459	2.3304	9
^	1.5036	0.6651	8:3938	5.5824	0.1191	0.1791	15.450	2.7676	^
∞ ∘	1.5938	0.6274	9.8975	6.2098	0.1010	0.1610	19.842	3.1952	∞ (
6 1	1.6895	0.5919	11.4913 13.1808	7.36017	0.0870	0.1470	24.577	3.6133	o 1
7	70000	1000	7.1000	1.0001	00000	0.100	100:71	0.70.1	7
Ξ ;	1.8983	0.5268	14.9/16	7.8869	0.0668	0.1268	34.870	4.4213	Ξ ;
12	2.0122	0.4970	16.8699	8.3838	0.0593	0.1193	40.337	4.8113 5.1920	7 5
L1 14	2.1323	0.4066	21 0151	9.2027	0.0330	0.1130	45.503	5.1920	C1 41
15	2.3966	0.4173	23.2760	9.7122	0.0430	0.1030	57.555	5.9260	15
16	2.5404	0.3936	25.6725	10.1059	0.0390	0.0990	63.459	6.2794	16
17	2.6928	0.3714	28.2129	10.4773	0.0354	0.0954	69.401	6.6240	17
18	2.8543	0.3503	30.9057	10.8276	0.0324	0.0924	75.357	6.9597	18
19	3.0256	0.3305	33.7600	11.1581	0.0296	0.0896	81.306	7.2867	19
20	3.2071	0.3118	36.7856	11.4699	0.0272	0.0872	87.230	7.6051	20
21	3.3996	0.2942	39.9927	11.7641	0.0250	0.0850	93.114	7.9151	21
22	3.6035	0.2775	43.3923	12.0416	0.0230	0.0830	98.941	8.2166	2 23
3 5	3.8197	0.2618	46.9938	12.5034	0.0213	0.0813	104.701 110.381	8.3099	3 5
25	4.2919	0.2330	54.8645	12.7834	0.0182	0.0782	115.973	9.0722	25
30	5.7435	0.1741	79.0582	13.7648	0.0126	0.0726	142.359	10.3422	30
35	7.6861	0.1301	111.4348	14.4982	0.0000	0.0690	165.743	11.4319	35
40	10.2857	0.0972	154.7620	15.0463	0.0065	0.0665	185.957	12.3590	40
45	13.7646	0.0727	212.7435	15.4558	0.0047	0.0647	203.110	13.1413	45
20	18.4202	0.0543	290.3359	15.7619	0.0034	0.0634	217.457	13.7964	20
09	32.9877	0.0303	533.1282	16.1614	0.0019	0.0619	239.043	14.7909	09
80	105.7960	0.0095	1746.5999	16.5091	9000.0	0.0606	262.549	15.9033	8
100	339.3021	0.0029	5638.3681	16.6175	0.0002	0.0602	272.047	16.3711	100
8				10.000/		0.0600			8

 ϕ

Compound Present Compound Present Sinking Capital Capital Cardelent Factor		Single Payment	nent		Uniform Series	Series		Unifo	Uniform Gradient	
To Find F To Find F To Find F To Find A To Given G		Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
1,000 0,934 1,000 0,934 1,000 1,000 0,000 0,000 0,000 1,000 0,934 1,000 1,000 0,934 1,000 1,000 0,934 1,000 1,000 0,934 1,000 1,000 0,934 1,000 1,000 0,000 1,000 0,934 1,000 1,000 0,000 1,00	2	To Find F Given P F/P	To Find P Given F P/F	To Find F Given A F/A	To Find P Given A P/A	To Find A Given F A/F	To Find A Given P A/P	To Find P Given G P/G	To Find A Given G A/G	>
1,000 0,934 1,000 0,934 0,000 0,000 1,1220 0,873 2,070 1,080 0,481 0,523 0,483 0,000 1,1220 0,873 3,2149 2,6243 0,411 0,381 2,506 0,483 1,1220 0,863 3,2149 2,6243 0,411 0,392 4,795 0,483 1,4026 0,7730 5,787 4,108 0,2022 6,499 1,475 1,4155 1,507 0,6663 1,138 0,1156 0,186 1,4715 2,734 1,1718 0,5820 1,0298 0,195 0,187 1,475 2,734 1,1718 0,5820 1,1286 0,186 1,4715 2,734 1,466 1,1718 0,5820 1,128 0,0072 0,187 0,146 3,546 1,1885 0,443 1,1886 7,487 0,064 0,124 2,746 3,546 1,967 0,438 2,259 2,487 0,064	:		./.		/ .			5	5	:
11449 0.8874 2.0700 1.8080 0.4831 0.5531 0.8873 0.04831 112250 0.8163 3.2499 3.3872 0.2222 0.2522 4.756 0.9481 113108 0.7562 3.4299 3.3872 0.2222 0.2520 4.756 0.9481 114026 0.7130 5.7307 4.1002 0.1398 0.1049 1.6678 1.4155 1.4155 1.6078 0.6663 7.1532 4.7665 0.1398 0.1097 1.10978 1.4155 2.7304 1.6078 0.6820 1.1078 1.8789 3.1465 2.7314 1.8650 2.7304 1.8885 0.5820 1.138164 7.0236 0.0724 0.1424 2.7716 3.9461 2.1049 0.4440 1.7888 7.4887 0.0634 0.1424 2.7716 3.9461 2.1049 0.216 0.0724 0.1324 2.746 3.9461 3.9461 2.1049 0.2410 1.5888 7.4887 0.063		1.0700	0.9346	1.0000	0.9346	1.0000	1.0700	0.000	0.0000	
1.2250 0.816 3.249 2.6243 0.311 2.506 0.9549 1.3250 0.789 4.329 1.287 0.232 0.292 4.795 1.4155 1.3108 0.739 4.739 0.2439 7.647 1.8650 1.4008 0.663 7.1533 4.765 0.1396 0.2098 1.0978 2.3032 1.6088 0.6827 8.6340 5.3893 0.1156 0.1856 1.4715 2.7304 1.885 0.5820 10.2986 5.915 0.0859 1.14715 2.7304 1.885 0.5439 11.9780 6.5152 0.0859 0.1459 3.2467 1.8567 1.885 0.4440 17.886 6.5152 0.0859 0.1424 2.716 3.5467 2.1049 0.4751 15.7886 7.9487 0.0694 0.1424 2.716 3.2467 4.3296 2.2522 0.4440 17.8881 9.4466 0.0324 0.1024 0.1440 1.4862 0.1024	7	1.1449	0.8734	2.0700	1.8080	0.4831	0.5531	0.873	0.4831	. 1
1,3108 0,7629 4,4399 3,3872 0,2222 0,2939 4,795 1,4155 1,4026 0,7639 6,4399 3,3872 0,1239 0,2439 1,764 1,660 1,5007 0,663 7,1533 4,7665 0,1398 0,2939 1,764 1,8650 1,6038 0,6227 8,6349 1,1289 6,2139 0,1975 1,475 2,304 1,7182 0,5339 11,978 0,1975 1,475 2,344 2,734 1,7182 0,5839 11,978 0,0074 0,1424 2,746 3,9461 2,1049 0,4751 15,7836 7,942 0,0074 0,1424 2,746 3,9461 2,1049 0,4751 15,7836 7,942 0,0074 0,1143 2,746 3,9461 2,1049 0,4150 0,0074 0,1149 2,746 3,9461 3,9461 2,5786 0,3878 2,5486 9,4466 0,0339 0,1099 3,446 3,746 2	8	1.2250	0.8163	3.2149	2.6243	0.3111	0.3811	2.506	0.9549	ניז
1,5007 0,6663 7,1533 4,7665 0,1398 0,2098 10,978 2,3002 1,6088 0,6227 8,549 5,3893 0,1156 0,1856 14,715 2,7904 1,6088 0,6237 10,2898 5,9713 0,0975 0,1675 18,789 3,1465 1,8386 0,5439 11,9780 6,5152 0,0874 0,11675 2,770 3,3461 2,1049 0,4751 11,5786 7,4887 0,0674 0,1124 2,7716 3,3461 2,1049 0,4751 15,7886 7,4887 0,0634 0,1129 3,2467 4,3296 2,4058 0,4150 20,1406 8,3377 0,0439 0,1143 4,7025 5,0467 2,5785 0,3878 2,5487 0,0643 0,1143 4,7025 5,4167 5,783 2,5786 0,3878 2,5487 0,0443 0,1143 4,7025 5,4167 2,578 0,3840 2,1047 0,0439 0,1044 7,750 5,4	4 rc	1.3108 1.4026	0.7629 0.7130	4.4399 5.7507	3.3872 4.1002	0.2252 0.1739	0.2952 0.2439	4.795 7.647	1.4155 1.8650	4, 11)
1,608 0,6227 8,6540 5,3893 0,1156 0,1856 14,715 2,7204 1,508 0,6227 8,6540 5,3893 0,1185 0,1855 14,715 2,7304 1,838 0,5820 11,9780 6,5173 0,0975 0,1855 18,716 3,5417 1,838 0,5820 11,9780 0,0634 0,1324 27,716 3,5457 2,1049 0,4751 11,57885 7,4927 0,0659 0,1329 37,346 4,3296 2,2522 0,4440 17,8885 7,4927 0,0659 0,1197 4,2326 6,048 2,27590 0,436 0,0437 0,1197 4,233 5,0648 2,7590 0,3624 25,1290 9,1079 0,098 6,1332 5,0448 2,7590 0,3624 25,1290 9,1079 0,098 6,1332 5,1466 6,1332 2,7590 0,3624 25,1290 9,1079 0,098 6,146 6,149 7,258 3,7865	9	1.5007	0.6663	7.1533	4.7665	0.1398	0.2098	10.978	2.3032	
1782 0.5820 10.2598 5.9713 0.0975 0.1675 18.789 3.1465 1.8885 0.5439 11.9780 6.5152 0.0835 0.1635 23.140 3.3517 1.9672 0.0583 0.1535 23.140 3.5517 3.9461 2.1049 0.4751 15.7836 7.4987 0.0639 0.1234 47.329 3.5517 2.2022 0.04150 17.8885 7.9427 0.0639 0.1234 47.025 0.0648 2.4088 0.04150 2.01406 8.3577 0.0497 0.1197 47.025 6.0488 2.2786 0.3874 2.1079 0.0394 0.1197 47.025 6.0410 2.2786 0.3874 2.1079 9.1079 0.01094 47.329 6.4110 2.5787 0.2952 0.3802 9.7632 0.0244 47.329 6.4110 2.7789 0.2869 3.3980 1.0094 0.1024 47.305 6.4110 2.9222 0.2849 1.0	^	1.6058	0.6227	8.6540	5.3893	0.1156	0.1856	14.715	2.7304	. [
1.8385 0.5439 11.9780 6.5152 0.0835 0.1335 23.140 3.5617 1.9672 0.5083 0.0724 0.1424 27.16 3.9461 2.1049 0.4751 15.8864 7.0236 0.0724 0.1334 32.467 4.3296 2.2522 0.04440 17.8885 7.4987 0.0659 0.1139 37.467 4.7025 2.4098 0.4150 2.25505 8.7455 0.0497 0.1193 47.327 5.0448 2.5786 0.3878 2.25505 8.7455 0.0497 0.1193 47.327 5.0468 2.5780 0.3878 2.12500 9.1079 0.0394 0.1098 57.446 5.7486 5.446 6.0897 6.1193 47.327 6.4110 5.7583 5.4167 5.7583 5.4168 5.7583 5.4168 5.7583 5.4168 5.7583 5.4168 5.7583 5.4168 5.7583 5.4168 5.7583 5.4168 5.7583 5.4168 5.7583 5.4168 5.7583 </td <td>. ∞</td> <td>1.7182</td> <td>0.5820</td> <td>10.2598</td> <td>5.9713</td> <td>0.0975</td> <td>0.1675</td> <td>18.789</td> <td>3.1465</td> <td>. ∞</td>	. ∞	1.7182	0.5820	10.2598	5.9713	0.0975	0.1675	18.789	3.1465	. ∞
1.9672 0.5083 13.8164 7.0236 0.0724 0.1424 27.716 3.9461 2.1049 0.4751 15.7836 7.4987 0.0634 0.1334 32.467 4.3296 2.2522 0.4440 17.8885 7.9427 0.0559 0.1159 37.351 4.7025 2.4098 0.4150 20.1406 8.3577 0.0497 0.1197 42.330 5.0648 2.5786 0.3878 25.1290 9.1079 0.0398 0.1197 47.372 5.1466 2.5750 0.3878 25.1290 9.1079 0.0359 0.1094 57.462 5.7583 2.5750 0.3878 25.1290 9.1079 0.0354 0.1024 47.302 6.4110 2.5750 0.3624 25.1290 9.1079 0.0244 0.0944 77.509 7.3163 3.1588 0.3166 37.3490 10.0591 0.0244 0.0944 77.509 7.3164 3.8697 0.254 40.0557 10.544 0.0948	6	1.8385	0.5439	11.9780	6.5152	0.0835	0.1535	23.140	3.5517	0,
2.1049 0.4751 15.7836 7.4987 0.0634 0.1334 32.467 4.3296 2.2522 0.4440 17.8885 7.9427 0.0559 0.1259 37.351 4.7025 2.2522 0.4440 17.8885 7.9427 0.0497 0.1197 42.330 5.0448 2.5786 0.3878 22.1406 8.3577 0.0443 0.1197 42.330 5.0448 2.7590 0.38624 25.1290 9.1079 0.01994 47.327 5.0448 2.7590 0.3269 10.0594 0.1024 62.592 6.4110 3.3789 0.2269 33.9990 10.0344 0.0944 77.509 7.3163 3.3789 0.2269 37.3790 10.3356 0.0224 0.0994 67.622 6.4110 3.3789 0.2269 37.3790 10.3356 0.0224 0.0994 67.629 6.7225 3.8697 0.2269 11.0612 0.0244 0.0994 7.509 7.3163 4.4304	10	1.9672	0.5083	13.8164	7.0236	0.0724	0.1424	27.716	3.9461	1(
2.2522 0.4440 17.8885 7.9427 0.0559 0.1259 37.351 4.7025 2.4088 0.4150 0.01406 8.3577 0.0497 0.1197 42.330 5.0648 2.4098 0.4150 0.01406 8.3577 0.0443 0.01193 42.330 5.0648 2.5786 0.3878 25.1290 9.1079 0.0398 0.11098 32.446 5.7587 3.1588 0.3862 27.8881 9.4466 0.0324 0.1029 57.527 6.0897 3.1588 0.2959 33.9990 10.0591 0.0294 0.0994 67.622 6.7110 3.3799 0.2959 37.3790 10.0594 0.0994 77.599 7.0242 3.465 0.2584 40.9955 10.0594 0.0994 77.599 7.0242 3.8697 0.2584 44.8652 10.0544 0.0994 77.599 7.3163 4.1406 0.2584 11.0612 0.0224 0.0994 77.599 7.3163	11	2.1049	0.4751	15.7836	7.4987	0.0634	0.1334	32.467	4.3296	11
2.4098 0.4150 20.1406 8.3577 0.0497 0.1197 42.330 5.0648 2.5786 0.3878 22.5265 8.7455 0.0443 0.1143 47.372 5.0648 2.5750 0.3878 25.1290 9.1079 0.0398 0.1098 52.446 5.0648 2.952 0.3387 27.8881 9.4466 0.0359 0.1069 57.527 6.0897 3.1588 0.3166 30.3462 0.0259 0.0295 37.3790 10.0591 0.0294 6.0498 57.527 6.0897 3.3799 0.2765 37.3790 10.0591 0.0294 6.0968 77.529 6.4110 4.1406 0.2764 40.9955 10.5940 0.0244 77.509 7.0242 4.1406 0.227 40.8652 10.6249 0.0244 77.509 7.3163 4.1406 0.2157 44.8652 10.540 0.0244 77.509 7.3242 4.1406 0.2157 44.8652 11.4693 0.0224	12	2.2522	0.4440	17.8885	7.9427	0.0559	0.1259	37.351	4.7025	12
2.5785 0.8878 2.2.5505 8.7455 0.0443 0.1143 47.372 5.4167 2.7590 0.3624 25.1290 9.1079 0.0398 0.1098 52.446 5.7883 2.9522 0.3387 27.881 9.446 0.0359 0.1059 57.527 6.0897 3.1588 0.3166 30.8402 9.7632 0.0224 0.0944 67.522 6.4110 3.1588 0.2765 37.3790 10.0294 67.522 6.4110 3.1588 0.2765 37.3790 10.0294 67.522 6.4110 3.8697 0.2764 0.0244 0.0944 77.509 7.3163 4.1406 0.2767 49.0057 11.0612 0.0244 0.0944 77.509 7.3163 4.4304 0.2257 49.0057 11.0612 0.0244 0.0944 77.509 7.3163 5.0724 0.1971 83.3461 11.2722 0.0187 0.0897 91.720 8.1369 5.0724 0.1971	13	2.4098	0.4150	20.1406	8.3577	0.0497	0.1197	42.330	5.0648	13
2.7590 0.3624 25.1200 9,1079 0.0398 0.1098 52,446 5.7883 2.9522 0.3387 27.8881 9,4466 0.0359 0.1059 57.527 6.0897 3.1588 0.3166 30.8402 9,7632 0.0294 0.0294 67.522 6.7110 3.1588 0.2369 37.3790 10.0336 0.0294 67.522 6.7225 3.6165 0.2765 37.3790 10.0346 0.0994 77.509 7.0242 3.8697 0.2764 40.9955 10.5940 0.0244 77.509 7.3163 4.1406 0.2415 44.8652 10.5940 0.0244 77.509 7.3163 4.4304 0.2257 49.0657 11.0612 0.0244 77.509 7.3163 4.7405 0.2109 53.4361 11.2722 0.0187 0.0987 96.255 8.3923 5.0724 0.1971 58.1767 11.4633 0.0172 0.0872 96.255 8.3923 5.0724	14	2.5785	0.3878	22.5505	8.7455	0.0443	0.1143	47.372	5.4167	14
2.9522 0.3387 27.8881 9.4466 0.0359 0.1059 57.527 6.0897 3.1588 0.3166 30.8402 9.7632 0.0324 0.1024 62.592 6.4110 3.3799 0.2959 33.9990 10.0591 0.0284 0.0994 67.622 6.4110 3.4645 0.2584 40.9955 10.5940 0.0244 77.509 7.0242 4.1406 0.2415 44.8652 10.5940 0.0244 77.509 7.3163 4.1406 0.2415 44.8662 10.5940 0.0244 77.509 7.3163 4.1406 0.2416 11.0612 0.0224 0.0904 87.39 7.5190 4.1406 0.2109 53.446 11.6536 0.0187 0.0904 87.39 7.590 5.0724 0.1971 53.4767 11.4693 0.01187 0.0887 91.720 8.391 5.0724 0.134 94.4608 12.4090 0.0106 0.0896 10.0677 96.255	CI	2.7590	0.3624	75.1290	9.1079	0.0398	0.1098	52.446	5.7.583	S
3.1588 0.3166 30.8402 9.7632 0.0324 0.1024 62.592 6.4110 3.3799 0.2259 33.9990 10.0591 0.0294 67.622 6.7125 3.3799 0.2259 37.3790 10.0591 0.0244 0.0994 67.622 6.4110 3.8697 0.2584 40.9955 10.5940 0.0244 77.599 7.0242 4.1406 0.2415 44.8652 10.6241 7.5990 7.3163 4.4304 0.2257 49.0657 11.0612 0.0204 82.339 7.5990 4.4304 0.2257 49.0657 11.0612 0.0244 0.0887 91.720 8.1369 5.0724 0.1971 58.1767 11.4693 0.0187 0.0887 96.255 8.3923 5.4274 0.1842 63.2490 11.6536 0.0168 96.255 8.3923 5.4274 0.1842 8.2340 11.6536 0.0168 96.255 8.2391 1.6.566 0.0937 138.236	16	2.9522	0.3387	27.8881	9.4466	0.0359	0.1059	57.527	6.0897	16
3.3799 0.2959 33.9990 10.0591 0.0294 67.622 6.725 3.465 0.2765 37.3790 10.0368 0.0268 0.0968 72.599 7.0242 3.465 0.2764 0.0244 0.0968 72.599 7.0242 4.1406 0.2415 44.8652 10.5940 0.0224 0.0944 77.509 7.3163 4.1406 0.2257 49.0677 11.0612 0.0204 0.0904 87.079 7.8725 4.7405 0.2109 53.4361 11.2722 0.0187 0.0887 91.720 81.369 5.0724 0.1971 58.1767 11.4693 0.0172 0.0887 91.720 8.3923 5.4274 0.1842 63.2490 11.6536 0.0158 0.0872 100.677 8.6391 7.6123 0.1314 94.4608 12.4090 0.0106 0.0876 120.972 9.7487 10.6766 0.0937 138.2369 12.9477 0.0072 138.135 11.4233	17	3.1588	0.3166	30.8402	9.7632	0.0324	0.1024	62.592	6.4110	17
3.6165 0.2765 37.3790 10.3356 0.0268 0.0968 72.599 7.0242 3.8697 0.2584 40.9955 10.5940 0.0244 0.0944 77.509 7.3163 4.1406 0.2415 44.8652 10.5940 0.0223 0.0923 82.339 7.5990 4.4304 0.2257 49.0057 11.0612 0.0204 0.0904 87.079 7.8725 4.7405 0.2109 53.4361 11.2722 0.0187 0.0887 91.720 8.1369 5.0724 0.1971 58.1767 11.4693 0.0172 0.0887 96.255 8.3923 5.0724 0.1971 58.1767 11.4693 0.0172 0.0887 96.255 8.3923 5.0724 0.1971 94.4608 12.4090 0.0106 0.0858 100.677 8.6391 10.6766 0.0937 138.2369 12.9477 0.0072 138.135 11.4233 21.0023 0.0458 13.6055 0.0072 0.0772 138	18	3.3799	0.2959	33.9990	10.0591	0.0294	0.0994	67.622	6.7225	18
3.8697 0.2584 40.9955 10.5940 0.0244 0.0944 77.509 7.3163 4.1406 0.2415 44.8652 10.5940 0.0223 0.0923 82.339 7.5990 4.4304 0.2257 49.0057 11.0612 0.0204 0.0904 87.079 7.8725 4.7405 0.2109 53.4361 11.2722 0.0187 0.0887 91.720 8.1369 5.0724 0.1971 58.1767 11.4693 0.0172 0.0887 96.255 8.3923 5.0724 0.1971 58.1767 11.4693 0.0172 0.0887 96.255 8.3923 5.0724 0.1947 0.0178 0.0872 96.255 8.3923 5.4274 0.1842 63.2490 11.4693 0.0176 0.0858 100.677 8.6391 10.6766 0.0937 138.2369 12.4499 0.0075 138.135 11.4293 21.0023 0.0476 285.7495 13.6055 0.0035 0.075 12.293 11.4	19	3.6165	0.2765	37.3790	10.3356	0.0268	0.0968	72.599	7.0242	13
4.1406 0.2415 44.8652 10.8355 0.0223 0.0923 82.339 7.5990 4.4304 0.2257 49.0057 11.0612 0.0204 0.0904 87.079 7.8725 4.7405 0.2109 53.4361 11.2722 0.0187 0.0887 91.720 81.369 5.0724 0.1971 58.1767 11.4693 0.0172 0.0887 96.255 8.3923 5.0724 0.1971 58.1767 11.4693 0.0172 0.0872 96.255 8.3923 5.0724 0.1842 63.2490 11.6536 0.0158 0.0885 100.677 8.6391 7.6123 0.1314 94.4608 12.4490 0.0106 0.0876 120.972 9.7487 10.6766 0.0937 138.2369 12.9477 0.0075 152.293 11.4233 29.4570 0.0376 0.0375 163.756 12.366 12.367 29.4570 0.0389 406.5289 13.8007 0.0025 0.0725 172.905 <td< td=""><td>20</td><td>3.8697</td><td>0.2584</td><td>40.9955</td><td>10.5940</td><td>0.0244</td><td>0.0944</td><td>77.509</td><td>7.3163</td><td>7</td></td<>	20	3.8697	0.2584	40.9955	10.5940	0.0244	0.0944	77.509	7.3163	7
4.4304 0.257 49.0057 11.0612 0.0204 0.0904 87.079 7.8725 4.7405 0.2109 53.4361 11.2722 0.0187 0.0887 91.720 8.1369 5.0724 0.1971 58.1767 11.4693 0.0172 0.0872 96.255 8.3923 5.0724 0.1971 58.1767 11.4693 0.0172 0.0872 96.255 8.3923 5.0724 0.1842 63.2490 11.6536 0.0158 100.677 8.6391 7.6123 0.1344 94.4608 12.4490 0.0106 0.0856 120.972 9.7487 10.6766 0.0937 138.2369 12.9477 0.0072 0.0772 138.135 10.6887 21.0023 0.0476 285.7495 13.6055 0.0035 0.0750 152.293 11.4233 224.2344 0.045 285.7495 13.8007 0.0025 0.0725 172.905 12.5287 224.2344 0.0045 3189.0627 14.2220 0.0003	21	4.1406	0.2415	44.8652	10.8355	0.0223	0.0923	82.339	7.5990	2
4.7405 0.2109 53.4361 11.2722 0.0187 0.0887 91.720 8.1369 5.0724 0.1971 58.1767 11.4693 0.0172 0.0872 96.255 8.3923 5.0724 0.1971 58.1767 11.4693 0.0172 0.0872 96.255 8.3923 5.4274 0.1842 63.2490 11.6536 0.0158 0.0858 100.677 8.6391 7.6123 0.1314 94.4608 12.4490 0.0106 0.0876 120.972 9.7487 10.6766 0.0937 138.2369 12.9477 0.0072 0.0772 138.135 10.6687 14.9745 0.0668 199.6351 13.317 0.0050 0.0750 152.293 11.4233 21.0023 0.0476 285.7495 13.8007 0.0025 0.0725 172.905 12.5287 224.2344 0.045 3189.0627 14.2220 0.0003 0.0703 198.075 14.1703 14.1703 224.2344 0.0012 14.2693	22	4.4304	0.2257	49.0057	11.0612	0.0204	0.0904	87.079	7.8725	23
5.0724 0.1971 58.1767 11.4693 0.0172 0.0872 96.255 8.3923 5.4274 0.1842 63.2490 11.6536 0.0158 0.0858 100.677 8.6391 7.6123 0.1314 94.4608 12.4490 0.0106 0.0806 120.972 9.7487 10.6766 0.0937 138.2369 12.9477 0.0072 0.0772 138.135 10.6687 14.9745 0.0668 199.6351 13.3317 0.0050 0.0750 152.293 11.4233 21.0023 0.0476 285.7495 13.6055 0.0035 0.0750 172.905 12.380 29.4570 0.0339 406.5289 13.8007 0.0025 0.0725 172.905 12.5287 57.9464 0.0173 813.5204 14.2693 0.0003 0.0703 198.075 13.3271 867.7163 0.0012 14.1203 0.0001 0.00701 202.200 14.1703 14.1703	23	4.7405	0.2109	53.4361	11.2722	0.0187	0.0887	91.720	8.1369	23
5.4274 0.1842 63.2490 11.6356 0.0158 0.0858 100.677 8.6391 7.6123 0.1314 94.4608 12.4900 0.0106 0.0806 120.972 9.7487 10.6766 0.0937 138.2369 12.9477 0.0072 0.0772 138.135 10.6887 14.9745 0.0668 199.6351 13.3317 0.0050 0.0750 152.293 11.4233 29.4570 0.039 406.5289 13.8007 0.0025 0.0755 172.905 12.380 57.9464 0.0173 813.5204 14.0392 0.0002 0.0703 198.075 13.3221 224.2344 0.0045 3189.0627 14.2293 0.0001 202.200 14.1703 14.1703	24	5.0724	0.1971	58.1767	11.4693	0.0172	0.0872	96.255	8.3923	75
7.6123 0.1314 94.4608 12.4090 0.0106 0.0806 120.972 9.7487 10.6766 0.0937 138.2369 12.9477 0.0072 0.0772 138.135 10.6687 14.9745 0.0668 199.6331 13.3317 0.0050 0.0750 152.293 11.4233 21.0023 0.0476 285.7495 13.6055 0.0035 0.0735 163.756 12.0360 29.4570 0.0339 406.5289 13.8007 0.0025 0.0725 172.905 12.5287 57.9464 0.0173 813.5204 14.0392 0.0002 0.0703 198.075 13.3221 224.2344 0.0045 3189.0627 14.2220 0.0001 202.200 14.1703 14.1703	22	5.4274	0.1842	63.2490	11.6536	0.0158	0.0858	100.677	8.6391	23
10.6766 0.0937 138.2369 12.9477 0.0072 0.0772 138.135 10.6687 14.9745 0.0668 199.6351 13.3317 0.0050 0.0750 152.293 11.4233 21.0023 0.0476 285.7495 13.6055 0.0035 0.0735 163.756 12.0360 29.4570 0.0339 406.5289 13.8007 0.0025 0.0725 172.905 12.5287 57.9464 0.0173 813.5204 14.0392 0.0012 0.0725 185.768 13.2321 224.2344 0.0045 3189.0627 14.2220 0.0003 0.0703 198.075 14.1703 1 867.7163 0.0012 1.2381.6618 14.2693 0.0001 202.200 14.1703 1	30	7.6123	0.1314	94.4608	12.4090	0.0106	0.0806	120.972	9.7487	33
14.9745 0.0668 199.6351 13.3317 0.0050 0.0750 152.293 11.4233 21.0023 0.0476 285.7495 13.6055 0.0035 0.0735 163.756 12.0360 29.4570 0.0339 406.5289 13.8007 0.0025 0.0725 172.905 12.5287 57.9464 0.0173 813.5204 14.0392 0.0012 0.0712 185.768 13.2321 224.2344 0.0045 3189.0627 14.2220 0.0001 202.200 14.1703 14.1703	35	10.6766	0.0937	138.2369	12.9477	0.0072	0.0772	138.135	10.6687	88
21.0023 0.0476 285.7495 13.6055 0.0035 0.0735 163.756 12.0360 29.4570 0.0339 406.5289 13.8007 0.0025 0.0725 172.905 12.5287 57.9464 0.0173 813.5204 14.0392 0.0012 0.0712 185.768 13.2321 224.2344 0.0045 3189.0627 14.2220 0.0003 0.0703 198.075 13.9273 867.7163 0.0012 12.381.6618 14.2693 0.0001 202.200 14.1703 1	40	14.9745	0.0668	199.6351	13.3317	0.0050	0.0750	152.293	11.4233	40
29.4570 0.0339 406.5289 13.8007 0.0025 0.0725 172.905 12.5287 57.9464 0.0173 813.5204 14.0392 0.0012 0.0712 185.768 13.2321 224.2344 0.0045 3189.0627 14.2220 0.0003 0.0703 198.075 13.9273 867.7163 0.0012 12.381.6618 14.2693 0.0001 202.200 14.1703 1	45	21.0023	0.0476	285.7495	13.6055	0.0035	0.0735	163.756	12.0360	45
57.9464 0.0173 813.5204 14.0392 0.0012 0.0712 185.768 13.2321 224.2344 0.0045 3189.0627 14.2220 0.0003 0.0703 198.075 13.9273 867.7163 0.0012 12381.6618 14.2693 0.0001 0.0701 202.200 14.1703 1	20	29.4570	0.0339	406.5289	13.8007	0.0025	0.0725	172.905	12.5287	20
224.2344 0.0045 3189.0627 14.2220 0.0003 0.0703 198.075 13.9273 13.8273 867.7163 0.0012 12381.6618 14.2693 0.0001 0.0701 2.02.200 14.1703 1	09	57.9464	0.0173	813.5204	14.0392	0.0012	0.0712	185.768	13.2321	09
867.7163 0.0012 12381.6618 14.2693 0.0001 0.0701 202.200 14.1703	80	224.2344	0.0045	3189.0627	14.2220	0.0003	0.0703	198.075	13.9273	∞ ;
	100	867.7163	0.0012	12381.6618	14.2693	0.0001	0.0701	202.200	14.1703	100

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		Aylılcılı.		Uniform Series	Series		Unife	Uniform Gradient	
	Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
>	To Find F Given P F/P	To Find P Given F P/F	To Find F Given A F/A	To Find P Given A P/A	To Find A Given F A/F	To Find A Given P A/P	To Find P Given G P/G	To Find A Given G A/G	>
7	0000	000	0000		00000	0000	5 / .	5 6.	
– c	1.0800	0.9259	1.0000	0.9259	1.0000	1.0800	0.000	0.0000	_ (
7 (1.1664	0.8573	2.0800	1.7833	0.4808	0.5608	0.857	0.4808	7 (
· 0:	1.2597	0.7938	3.2464	2.5771	0.3080	0.3880	2.445	0.9487	. O.
4 rc	1.3605	0.7350	4.5061 5.8666	3.3121 3.9927	0.2219 0.1705	0.3019 0.2505	4.650 7.372	1.4040 1.8465	4 5
9	1.5869	0.6302	7.3359	4.6229	0.1363	0.2163	10.523	2.2763	9
^	1.7138	0.5835	8.9228	5.2064	0.1121	0.1921	14.024	2.6937	^
∞	1.8509	0.5403	10.6366	5.7466	0.0940	0.1740	17.806	3.0985	8
6	1.9990	0.5002	12.4876	6.2469	0.0801	0.1601	21.808	3.4910	6
10	2.1589	0.4632	14.4866	6.7101	0.0690	0.1490	25.977	3.8713	10
11	2.3316	0.4289	16.6455	7.1390	0.0601	0.1401	30.266	4.2395	11
12	2.5182	0.3971	18.9771	7.5361	0.0527	0.1327	34.634	4.5957	12
13	2.7196	0.3677	21.4953	7.9038	0.0465	0.1265	39.046	4.9402	13
14	2.9372	0.3405	24.2149	8.2442	0.0413	0.1213	43.472	5.2731	14
15	3.1722	0.3152	27.1521	8.5595	0.0368	0.1168	47.886	5.5945	15
16	3.4259	0.2919	30.3243	8.8514	0.0330	0.1130	52.264	5.9046	16
17	3.7000	0.2703	33.7502	9.1216	0.0296	0.1096	56.588	6.2037	17
18	3.9960	0.2502	37.4502	9.3719	0.0267	0.1067	60.843	6.4920	18
19	4.3157	0.2317	41.4463	9:09:6	0.0241	0.1041	65.013	6.7697	19
20	4.6610	0.2145	45.7620	9.8181	0.0219	0.1019	060.69	7.0369	20
21	5.0338	0.1987	50.4229	10.0168	0.0198	0.0998	73.063	7.2940	21
22	5.4365	0.1839	55.4568	10.2007	0.0180	0.0980	76.926	7.5412	22
23	5.8715	0.1703	60.8933	10.3711	0.0164	0.0964	80.673	7.7786	23
24	6.3412	0.1577	66.7648	10.5288	0.0150	0.0950	84.300	8.0066	24
25	6.8485	0.1460	73.1059	10.6748	0.0137	0.0937	87.804	8.2254	25
30	10.0627	0.0994	113.2832	11.2578	0.0088	0.0888	103.456	9.1897	30
35	14.7853	0.0676	172.3168	11.6546	0.0058	0.0858	116.092	9.9611	35
40	21.7245	0.0460	259.0565	11.9246	0.0039	0.0839	126.042	10.5699	40
45	31.9204	0.0313	386.5056	12.1084	0.0026	0.0826	133.733	11.0447	45
20	46.9016	0.0213	573.7702	12.2335	0.0017	0.0817	139.593	11.4107	20
09	101.2571	0.0099	1253.2133	12.3766	0.0008	0.0808	147.300	11.9015	09
80	471.9548	0.0021	5886.9354	12.4735	0.0002	0.0802	153.800	12.3301	80
100	2199.7613	0.0005	27484.5157	12.4943	В	0.0800	155.611	12.4545	100
8				12.5000		00800			8

^aLess than 0.0001.

^aLess than 0.0001.

Present Present Compound Present Factor F		Single Payment	nent		Uniform Series	Series		Unife	Uniform Gradient	
Factor		Compound	Present	Compound	Present	Sinking	Capital	Gradient	Gradient	
To Find F To Find F To Find A To Find A To Find P Given G F/A P/F A/P <		Factor	Factor	Factor	Worth	Factor	Factor	Fresent worn Factor	Uniform series Factor	
Given P Given P Given P Given P Given P F/A P/F P/G F/P P/F F/A P/F A/F A/P P/G 1.1000 0.9264 1.000 0.9991 1.000 0.000 1.2100 0.8264 2.1000 1.7355 0.4762 0.5762 0.826 1.1210 0.8264 2.1000 1.7355 0.4762 0.5762 0.826 1.1210 0.5204 4.6410 2.486 0.0155 0.4021 2.329 1.1441 0.6829 4.6410 2.1869 0.0158 0.866 2.239 1.1776 0.6209 6.1051 3.7908 0.1658 0.2638 6.862 2.1436 0.6461 0.1639 0.1627 0.289 6.862 2.1436 0.4411 3.7908 0.1638 0.2638 6.862 2.1384 0.1385 1.14439 5.349 0.0627 0.1134 6.239 2.2579 0.2648 0.015		To Find F	To Find P	To Find F	To Find P	To Find A	To Find A	To Find P	To Find A	
F/P P/F F/A P/A A/F P/G 1.1000 0.9091 1.0000 0.9091 1.0000 0.0000 1.21000 0.8264 2.1000 0.9031 1.0000 0.000 1.21000 0.8264 2.1000 2.4869 0.3021 0.4021 2.329 1.2100 0.8264 2.1001 2.1605 0.6208 6.626 0.3021 0.4021 2.329 1.6105 0.6209 6.6101 3.1698 0.1236 0.6288 6.862 1.15016 0.6209 6.6103 3.1884 0.1054 0.2034 6.862 1.27716 0.6289 0.4665 1.1488 0.1054 0.2034 6.862 2.1436 0.4665 1.1488 0.1054 0.1054 1.2763 1.2489 2.3579 0.4267 1.1466 0.0627 0.1627 1.2469 1.2460 2.3583 0.3855 1.15974 6.1446 0.0627 0.1627 1.2763 2.5831 <td></td> <td>Given P</td> <td>Given F</td> <td>Given A</td> <td>Given A</td> <td>Given F</td> <td>Given P</td> <td>Given G</td> <td>Given G</td> <td></td>		Given P	Given F	Given A	Given A	Given F	Given P	Given G	Given G	
1,1000 0.9991 1,0000 1,1000 0.000 1,2100 0.8264 2,1000 1,7369 0.4762 0.626 1,2100 0.7513 3,1000 1,7369 0.2155 0.4021 2,329 1,3100 0.7513 3,1000 1,8864 0.1038 0.2638 6.862 1,6411 0.6830 4,6410 3,1689 0.2158 0.2638 6.862 1,6412 0.6209 6,1051 0.0238 0.2638 6.862 9.684 1,7716 0.5645 7,716 0.1638 0.2296 9.684 1,9487 0.4665 11,4339 5,3349 0.0874 0.1629 19.482 2,5377 0.4665 11,4339 5,3349 0.0874 0.1629 19.482 2,5377 0.3855 11,4339 5,349 0.0627 0.1629 19.422 2,5377 0.3855 1,446 0.0627 0.1629 19.426 2,5377 0.2834 1,1488 0.1629 <t< td=""><td>2</td><td>F/P</td><td>P/F</td><td>F/A</td><td>P/A</td><td>A/F</td><td>A/P</td><td>P/G</td><td>A/G</td><td>2</td></t<>	2	F/P	P/F	F/A	P/A	A/F	A/P	P/G	A/G	2
121000 0.8264 2.1000 1.7355 0.4762 0.8762 0.826 1.3100 0.6830 4.6410 3.1689 0.3021 0.4021 2.329 1.4641 0.6830 4.6410 3.1689 0.1535 0.4321 2.329 1.4641 0.6830 4.6410 3.1689 0.1538 0.683 6.862 1.6105 0.6209 4.6410 3.1689 0.1236 0.2339 4.378 2.1436 0.6665 11.4387 5.4864 0.0073 0.1234 1.602 2.1436 0.4665 11.4389 0.0874 0.1627 2.881 2.1436 0.4667 11.4389 0.0354 0.1468 0.1468 2.1436 0.4667 11.4389 0.0354 0.1736 0.1468 0.1463 2.1436 0.4667 11.3579 5.7890 0.0736 0.1736 0.1468 0.1463 0.1463 2.3477 0.3867 1.4487 0.0448 0.0468 0.1468 0.1468	\vdash	1.1000	0.9091	1.0000	0.9091	1.0000	1.1000	0.000	0.0000	
13310 0.7513 3.3100 2.4869 0.3021 0.4021 2.329 14641 0.6830 4.6410 3.1699 0.2055 0.2155 4.378 1.6015 0.6209 6.1611 3.7968 0.2155 0.2054 4.578 1.14641 0.6830 4.6410 3.1699 0.1055 0.6209 6.682 1.1776 0.6653 7.7156 4.3533 0.1296 0.2638 6.882 2.1436 0.4665 11.4359 5.3349 0.0057 0.0263 9.6841 2.3379 0.3855 15.9374 6.1446 0.0627 0.1627 2.2891 2.5937 0.3865 18.5312 6.4951 0.0670 0.1527 2.2891 2.5937 0.3865 18.5312 6.4951 0.0627 0.1627 2.2891 2.5937 0.2384 0.1789 0.4241 0.1385 0.1387 0.1468 2.9901 3.4523 0.2383 2.24527 7.1367 0.0239 0.1375 <td>7</td> <td>1.2100</td> <td>0.8264</td> <td>2.1000</td> <td>1.7355</td> <td>0.4762</td> <td>0.5762</td> <td>0.826</td> <td>0.4762</td> <td></td>	7	1.2100	0.8264	2.1000	1.7355	0.4762	0.5762	0.826	0.4762	
1.4641 0.6830 4.6410 3.1689 0.1558 0.3155 4.378 1.4015 0.6209 6.1051 3.7068 0.1538 6.862 1.4016 0.6209 6.1051 3.7068 0.1538 6.864 1.1716 0.5545 7.7156 4.3553 0.1294 0.2698 9.684 1.1716 0.5545 7.7156 4.3553 0.1024 0.1294 1.6729 2.1345 0.4665 1.14359 5.349 0.0874 0.1672 1.6729 2.3579 0.4241 1.15795 6.7349 0.0736 0.1726 1.6229 2.3579 0.4241 1.15795 6.4951 0.0673 0.1576 2.2891 2.5377 0.2837 1.13843 6.4951 0.0468 0.1540 26.396 3.184 0.3186 1.23843 6.4951 0.0468 0.1468 2.2891 3.184 0.3294 2.13843 6.4951 0.0468 0.1468 3.347 4.1772	3	1.3310	0.7513	3.3100	2.4869	0.3021	0.4021	2.329	0.9366	
1,6105 0,6209 6,1051 3,7908 0,1058 0,6268 6,862 1,7716 0,6245 7,7156 4,8543 0,11296 0,2296 9,684 1,1376 0,4665 1,1439 6,884 0,1054 0,1296 9,684 2,1436 0,4665 11,4389 6,3349 0,0874 0,1874 16,029 2,3879 0,4441 11,5795 5,7390 0,0736 0,1627 22,891 2,537 0,3865 11,53974 6,1446 0,0627 0,1627 22,891 2,537 0,3865 11,53974 6,1446 0,0627 0,1627 22,891 3,4523 0,2897 13,834 6,1446 0,0627 0,1627 22,891 3,4523 0,2897 13,834 6,1446 0,0627 0,148 29,901 4,1772 0,2897 24,5227 7,1034 0,0408 0,1408 33,377 4,5795 0,2294 31,7725 7,0641 0,0315 0,1346 40,540<	4 1	1.4641	0.6830	4.6410	3.1699	0.2155	0.3155	4.378	1.3812	
1,7716 0.5645 7,7156 4,3533 0.1296 9,684 2,1436 0.5132 9,4872 4,8864 0.1054 0.2054 12,763 2,1436 0.4665 1,4874 0.1674 0.1674 16,029 2,1436 0.4241 1,35795 5,3349 0.0874 0.1736 19,422 2,3579 0.4241 1,35795 5,7390 0.0736 0.1736 19,422 2,8531 0.3865 1,85312 6,4951 0.0627 0.1627 22,891 3,1334 0.3865 21,3843 6,1466 0.0627 0.1540 25,396 3,1334 0.2894 2,17343 0.0448 0.0448 0.1468 25,391 4,1772 0.2633 2,7976 7,3667 0.0357 0.1367 36,811 4,1772 0.2634 31,7725 7,6661 0.0315 0.1367 46,582 5,0545 0.1736 0.137 0.1367 0.1367 46,582 6,1159 0.1448 <td>D.</td> <td>1.6105</td> <td>0.6209</td> <td>6.1051</td> <td>3.7908</td> <td>0.1638</td> <td>0.2638</td> <td>6.862</td> <td>1.8101</td> <td></td>	D.	1.6105	0.6209	6.1051	3.7908	0.1638	0.2638	6.862	1.8101	
19487 0.5132 9.4887 4.8684 0.1054 0.2054 12.763 2.1436 0.4665 11.4359 5.3349 0.0874 0.1874 16.029 2.3579 0.4241 11.4359 5.7349 0.0874 0.1629 19.422 2.3579 0.4241 15.9374 6.1446 0.0627 0.1627 22.891 2.8531 0.3805 11.8343 6.8137 0.0648 0.1468 26.396 3.1384 0.3186 21.3843 6.8137 0.0468 0.1468 26.396 3.4523 0.2894 2.7367 0.0468 0.1468 26.396 4.772 0.2394 31.7725 7.6061 0.037 0.1357 36.811 4.5950 0.2176 35.9497 7.827 0.0278 0.1247 49.640 4.5950 0.1763 31.7725 7.6061 0.0247 0.1247 49.640 6.1176 35.9497 7.827 0.0249 0.1246 49.648 6.1176 <td>9</td> <td>1.7716</td> <td>0.5645</td> <td>7.7156</td> <td>4.3553</td> <td>0.1296</td> <td>0.2296</td> <td>9.684</td> <td>2.2236</td> <td></td>	9	1.7716	0.5645	7.7156	4.3553	0.1296	0.2296	9.684	2.2236	
2.1436 0.4665 11.4359 5.3349 0.0874 10.1874 16.029 2.3579 0.4241 13.5795 5.7390 0.0736 0.1736 19.422 2.5379 0.3855 18.5312 6.4951 0.0627 0.1527 19.422 2.5373 0.3865 18.5312 6.4951 0.0648 0.1468 25.396 3.1384 0.3866 21.3843 6.8137 0.0468 0.1468 29.901 3.4523 0.2897 24.527 7.1034 0.0408 0.1468 29.901 3.4523 0.2897 24.527 7.1034 0.0408 0.1486 29.901 4.1772 0.2897 24.527 7.1037 0.037 0.137 40.152 4.1772 0.2897 27.775 7.6041 0.037 0.137 40.152 5.0545 0.1978 45.5992 8.2014 0.0219 45.583 5.0545 0.1978 45.5992 8.2014 0.0219 41.152 6.1158 <td>^</td> <td>1.9487</td> <td>0.5132</td> <td>9.4872</td> <td>4.8684</td> <td>0.1054</td> <td>0.2054</td> <td>12.763</td> <td>2.6216</td> <td></td>	^	1.9487	0.5132	9.4872	4.8684	0.1054	0.2054	12.763	2.6216	
2.3579 0.4241 13.5795 5.7790 0.0736 0.1736 19.422 2.5937 0.3855 1.59374 6.1446 0.0627 0.1540 26.396 3.534 0.3855 1.59374 6.1446 0.0629 0.1540 26.396 3.1344 0.3186 2.13843 6.4951 0.0648 0.1408 2.9901 3.4523 0.2897 2.13843 6.4951 0.0468 0.1408 3.377 3.4523 0.2897 2.45227 7.1034 0.0408 0.1408 3.3377 4.1772 0.2897 3.7467 0.0357 0.1357 40.152 4.1772 0.2894 3.7467 0.0357 0.1357 40.152 4.1772 0.1786 4.0547 8.0216 0.0247 0.1246 40.152 5.6599 0.1786 8.715 0.0127 4.6582 0.124 40.154 6.1159 0.1486 57.2750 8.514 0.014 0.114 40.544 8.9473	œ	2.1436	0.4665	11.4359	5.3349	0.0874	0.1874	16.029	3.0045	
2.5937 0.3855 15,9374 6,1446 0.0627 0.1627 2.891 2.8531 0.3505 18,5312 6,4951 0.0540 0.1540 26,396 3.1384 0.3186 21,3843 6,8137 0.0468 0.1468 29,901 3.4523 0.2386 22,8972 7,3667 0.0408 0.1408 29,901 3.4523 0.2897 24,5227 7,3667 0.0408 0.1408 29,901 3.4523 0.2894 24,5972 7,4601 0.0357 0.1357 36,801 4,5950 0.2176 35,9497 7,8273 0.0247 0.1247 40,152 5,0545 0.1978 40,5447 8,0216 0.0247 0.1247 46,582 5,0545 0.1789 40,5447 8,0216 0.0249 0.1247 46,582 6,1759 0.1789 40,5447 8,0216 0.0247 0.1247 46,582 6,1779 0.1486 57,2750 8,2487 0.0195 0.1146 <td< td=""><td>6</td><td>2.3579</td><td>0.4241</td><td>13.5795</td><td>5.7590</td><td>0.0736</td><td>0.1736</td><td>19.422</td><td>3.3724</td><td></td></td<>	6	2.3579	0.4241	13.5795	5.7590	0.0736	0.1736	19.422	3.3724	
2.8531 0.3505 18,5312 6.4951 0.0540 0.1540 26.396 3.1384 0.3186 21.3843 6.8137 0.0468 0.1468 22.901 3.4223 0.2387 24.5227 7.1034 0.0468 0.1468 22.901 3.4727 0.2633 27.9750 7.3667 0.0357 0.1357 36.801 4.5750 0.2176 35.9497 7.8276 0.0278 0.1278 40.152 5.0545 0.1978 40.5447 8.2014 0.0247 0.1278 43.416 5.0545 0.1799 45.5992 8.2014 0.0219 0.1278 45.680 5.0559 0.1798 40.5497 8.2014 0.0219 0.1274 46.582 6.1159 45.5992 8.2014 0.0219 0.1274 46.582 6.1159 0.1635 57.1591 8.3649 0.0129 0.1124 46.682 6.1759 0.1324 64.0025 8.5136 0.0140 0.1146 55.407	10	2.5937	0.3855	15.9374	6.1446	0.0627	0.1627	22.891	3.7255	10
3.1384 0.3186 21.3843 6.8137 0.0468 0.1468 29.901 3.4223 0.2897 24.5227 7.1034 0.0408 0.1408 3.377 3.7972 0.2394 27.9750 7.3667 0.0357 0.1357 36.801 4.1772 0.2394 31.7725 7.6061 0.0315 0.1315 40.152 5.6345 0.1798 40.5447 8.2014 0.0278 0.1278 43.416 5.6345 0.1799 45.5992 8.2014 0.0247 0.1279 45.682 5.6349 0.1799 45.5992 8.2014 0.0219 0.1249 49.640 6.1159 0.1635 51.1591 8.3649 0.0195 0.1195 55.407 6.1159 0.1635 57.2750 8.5136 0.0175 0.1175 55.407 8.1403 0.1321 71.4027 8.5487 0.0140 0.1140 6.4689 8.947 0.1028 0.1101 88.4973 8.8447 0.0126	11	2.8531	0.3505	18.5312	6.4951	0.0540	0.1540	26.396	4.0641	11
3.4523 0.2897 24.5227 7.1034 0.0408 0.1408 33.377 3.7975 0.2897 27.9750 7.3667 0.0357 0.1357 36.801 4.1772 0.2663 27.9750 7.3667 0.0357 0.1378 40.152 4.559 0.2176 35.9497 7.8237 0.0278 0.1247 46.582 5.559 0.1978 4.05447 8.0216 0.0247 0.1247 46.682 5.5599 0.1486 57.2750 8.5136 0.0195 0.1247 46.682 6.7275 0.1486 57.2750 8.5136 0.0175 0.1175 55.407 7.4002 0.1351 64.0025 8.6487 0.0156 0.1175 55.407 8.1403 0.1228 77.4027 8.7487 0.0156 0.1136 63.146 8.9543 0.1117 79.5430 8.8832 0.0126 0.1136 65.481 10.8347 0.0923 98.3471 9.0770 0.0102 0.1102 <td< td=""><td>12</td><td>3.1384</td><td>0.3186</td><td>21.3843</td><td>6.8137</td><td>0.0468</td><td>0.1468</td><td>29.901</td><td>4.3884</td><td>12</td></td<>	12	3.1384	0.3186	21.3843	6.8137	0.0468	0.1468	29.901	4.3884	12
3.7975 0.2633 27.9750 7.3667 0.0357 0.1357 36.801 4.1772 0.2394 31.7725 7.6661 0.0315 0.1315 40.152 4.550 0.2176 35.9497 7.8237 0.0278 0.1247 46.582 5.5599 0.1793 40.5447 8.0216 0.0247 0.1247 46.582 6.7275 0.1486 57.2750 8.5136 0.0129 46.582 6.7275 0.1351 64.0025 8.5136 0.0175 5.407 7.4002 0.1351 64.0025 8.5487 0.0156 55.407 8.943 0.0125 0.1105 55.407 55.407 8.943 0.0140 0.1140 60.689 8.9543 0.0140 0.1105 55.407 8.9497 0.0112 0.1102 65.481 10.8347 9.0770 0.0102 0.1102 65.481 11.4494 0.052 9.8442 0.0102 9.102 67.696 <	13	3.4523	0.2897	24.5227	7.1034	0.0408	0.1408	33.377	4.6988	13
4.1772 0.2394 31.7725 7.6061 0.0315 0.1315 40.152 4.5950 0.2176 35.9497 7.8237 0.0278 0.1278 43.416 5.0545 0.1978 40.5447 8.0216 0.0247 0.1247 46.582 5.5599 0.1799 45.5992 8.2014 0.0219 0.1247 46.582 6.1759 0.1635 51.1591 8.3649 0.0195 0.1195 52.583 6.1726 0.1486 57.2750 8.5136 0.0175 0.1175 55.407 7.4002 0.1351 64.0025 8.6487 0.0156 0.116 58.110 8.1403 0.128 71.4027 8.715 0.0140 0.116 66.689 8.543 0.1015 88.4973 8.8832 0.0126 0.116 67.696 9.8447 0.0923 98.4973 8.8847 0.0126 0.1113 67.696 10.834 0.0923 9.4249 0.0034 0.1034 0.1034 0.103	14	3.7975	0.2633	27.9750	7.3667	0.0357	0.1357	36.801	4.9955	14
4.5950 0.2176 35.9497 7.8237 0.0278 0.1278 43.416 5.0545 0.1978 40.5447 8.0216 0.0247 0.1247 46.582 5.5599 0.1799 45.5992 8.2014 0.0219 0.1247 46.582 6.1159 0.1635 51.1591 8.3649 0.0195 0.1195 52.583 6.7275 0.1486 57.2750 8.5136 0.0175 0.1175 55.407 7.4002 0.1351 64.0025 8.6487 0.0156 0.1156 55.407 8.1403 0.1228 71.4027 8.7715 0.0140 0.1140 60.689 8.1403 0.1128 71.4027 8.7715 0.0140 0.1140 60.689 8.8497 0.0140 0.1126 65.481 0.0126 67.696 10.8347 0.0221 98.3471 9.0770 0.0103 77.014 10.244 0.0256 271.0244 9.4242 0.0037 0.1037 1163.9085 <td< td=""><td>15</td><td>4.1772</td><td>0.2394</td><td>31.7725</td><td>7.6061</td><td>0.0315</td><td>0.1315</td><td>40.152</td><td>5.2789</td><td>15</td></td<>	15	4.1772	0.2394	31.7725	7.6061	0.0315	0.1315	40.152	5.2789	15
5.0545 0.1978 40.5447 8.0216 0.0247 0.1247 46.582 5.5599 0.1799 45.5992 8.2014 0.0219 0.1219 49.640 6.1159 0.1635 51.1591 8.3649 0.0195 0.1195 52.583 6.7275 0.1486 57.2750 8.5136 0.0175 0.1195 55.407 7.4002 0.1351 64.0025 8.6487 0.0156 0.1156 60.689 8.1403 0.1228 71.4027 8.7715 0.0140 0.1140 60.689 8.5437 0.0136 0.0126 0.0126 0.0140 0.0113 65.481 9.8497 0.013 0.012 8.84973 8.8847 0.0113 65.481 10.8347 0.0923 98.3471 9.0770 0.0102 0.1102 67.696 28.1024 0.0356 271.0244 9.6442 0.0037 0.1037 88.953 72.8905 0.0137 718.9048 9.8628 0.0014 0.1049	16	4.5950	0.2176	35.9497	7.8237	0.0278	0.1278	43.416	5.5493	16
5.5599 0.1799 45.592 8.2014 0.0219 0.1219 49.640 6.1159 0.1635 51.1591 8.3649 0.0195 0.1195 52.583 6.7275 0.1486 57.2750 8.5136 0.0175 0.1175 55.407 7.4002 0.1351 64.0025 8.6487 0.0156 0.1136 66.689 8.9497 0.1117 79.5430 8.8832 0.0126 0.1140 60.689 8.9497 0.1015 88.4973 8.9847 0.0113 65.481 10.8347 0.023 98.3471 9.0770 0.0102 67.696 117.4494 0.0523 164.4940 9.4269 0.0061 0.1102 67.696 28.1024 0.0523 164.4940 9.4269 0.0062 0.1003 88.953 45.2593 0.0221 442.5926 9.7791 0.0023 0.1023 88.953 72.8905 0.0137 718.9048 9.8628 0.0004 0.1009 99.561	17	5.0545	0.1978	40.5447	8.0216	0.0247	0.1247	46.582	5.8071	17
6.1159 0.1635 51.1591 8.3649 0.0195 0.1195 52.583 6.7275 0.1486 57.2750 8.5136 0.0175 0.1175 55.407 7.4002 0.1351 64.0025 8.6487 0.0156 0.1156 55.407 8.9403 0.1228 71.4027 8.7715 0.0140 0.1140 60.689 8.9497 0.1015 88.4973 8.9847 0.0126 0.1126 65.481 10.8347 0.0923 98.471 9.0770 0.0102 0.1102 67.696 17.4494 0.0573 164.4940 9.4269 0.0061 0.1102 67.696 28.1024 0.0573 164.4940 9.4269 0.0063 0.1067 77.077 45.2593 0.0221 442.5926 9.7791 0.0023 0.1003 88.953 72.8905 0.0137 718.9048 9.8628 0.0004 0.1009 94.889 304.4816 0.0005 2.0474.0021 9.9951 " 0.1000	18	5.5599	0.1799	45.5992	8.2014	0.0219	0.1219	49.640	6.0526	18
6.7275 0.1486 57.2750 8.5136 0.0175 0.1175 55.407 7.4002 0.1351 64.0025 8.6487 0.0156 0.1156 58.110 8.1403 0.1228 71.4027 8.7715 0.0140 0.1140 60.689 8.9543 0.1117 79.5430 8.8832 0.0126 0.1126 63.146 9.8497 0.01015 88.4973 8.9847 0.0136 63.146 63.481 10.8347 0.0923 98.3471 9.0770 0.0102 0.1102 67.696 17.4494 0.0573 164.4940 9.4269 0.0061 0.1102 67.696 17.4494 0.0573 164.4940 9.4269 0.0061 0.1067 77.077 28.1024 0.0356 277.0244 9.6442 0.0037 0.1037 88.953 72.8905 0.0137 718.9048 9.8628 0.0004 0.1009 94.889 117.3909 0.0005 20474.0021 9.9951 " 0.1000	19	6.1159	0.1635	51.1591	8.3649	0.0195	0.1195	52.583	6.2861	19
7.4002 0.1351 64.0025 8.6487 0.0156 0.1156 58.110 8.1403 0.1228 71.4027 8.7715 0.0140 0.1140 60.689 8.9543 0.1117 79.5430 8.8832 0.0126 0.1126 65.481 9.8497 0.0101 88.4973 8.9847 0.0113 65.481 65.481 10.8347 0.0923 98.3471 9.0770 0.0102 0.1102 67.696 17.4494 0.0573 164.4940 9.4269 0.0061 0.1067 77.077 28.1024 0.0356 271.0244 9.6442 0.0067 0.1067 83.987 45.2593 0.0221 442.5926 9.7791 0.0023 0.1003 88.953 72.8905 0.0137 718.9048 9.8628 0.0004 0.1004 94.889 117.3909 0.0085 1163.9085 9.9148 0.0009 0.1000 99.561 20448.4002 0.0001 137796.1234 9.9993 " 0.1000	20	6.7275	0.1486	57.2750	8.5136	0.0175	0.1175	55.407	6.5081	20
8.1403 0.1228 77.4027 8.7715 0.0140 0.1140 60.689 8.9543 0.1117 79.5430 8.8832 0.0126 0.1126 63.146 9.8497 0.1015 88.4973 8.9847 0.0113 65.481 10.8347 0.0023 98.3471 9.0770 0.0102 0.1102 67.696 17.4494 0.0573 164.4940 9.4269 0.0061 0.1061 77.077 28.1024 0.0356 271.0244 9.6442 0.0037 0.1037 88.953 72.8905 0.0137 718.9048 9.8628 0.0014 0.1014 92.454 117.3909 0.0085 1163.9085 9.9148 0.0009 0.1009 94.889 304.4816 0.0003 20474.0021 9.9951 " 0.1000 99.561 137780.6123 0.0001 137796.1234 9.9993 " 0.1000 99.920 137780.6123 0.0000 0.1000 0.1000 99.920 9.1000 9.9	21	7.4002	0.1351	64.0025	8.6487	0.0156	0.1156	58.110	6.7189	21
8.9543 0.1117 79,5430 8.8832 0.0126 0.1126 63.146 9.8497 0.1015 88.4973 8.9847 0.0113 65.481 10.8347 0.0923 98.3471 9.0770 0.0102 0.1102 67.696 17.4494 0.0573 164.4940 9.4269 0.0061 0.1061 77.077 28.1024 0.0356 271.0244 9.6442 0.0037 0.1037 83.987 45.2593 0.0221 442.5926 9.7791 0.0023 0.1023 88.953 72.8905 0.0137 718.9048 9.8628 0.0014 0.1014 92.454 117.3909 0.0085 1163.9085 9.9148 0.0009 0.1009 94.889 304.4816 0.0003 20474.0021 9.9951 " 0.1000 99.561 137780.6123 0.0001 137796.1234 9.9993 " 0.1000 99.920	22	8.1403	0.1228	71.4027	8.7715	0.0140	0.1140	689.09	6.9189	22
9.8497 0.1015 88.4973 8.9847 0.0113 65.481 10.8347 0.0923 98.3471 9.0770 0.0102 0.1102 67.696 17.4494 0.0573 164.4940 9.4269 0.0061 0.1061 77.077 28.1024 0.0356 271.0244 9.6442 0.0037 0.1037 83.987 45.2593 0.0221 442.5926 9.7791 0.0023 0.1023 88.953 72.8905 0.0137 718.9048 9.8628 0.0014 0.1014 92.454 117.3909 0.0085 1163.9085 9.9148 0.0009 0.1009 94.889 304.4816 0.0003 3034.8164 9.9672 0.0003 0.1000 99.561 137796.1234 0.0000 137796.1234 9.9993 a 0.1000 99.920 13780.6123 0.0001 137796.1234 9.9993 a 0.1000 99.920	23	8.9543	0.1117	79.5430	8.8832	0.0126	0.1126	63.146	7.1085	23
10.8347 0.0923 98.3471 9.0770 0.0102 0.1102 67.696 17.4494 0.0573 164.4940 9.4269 0.0061 0.1061 77.077 28.1024 0.0356 271.0244 9.6442 0.0037 0.1037 83.987 45.2593 0.0221 442.5926 9.7491 0.0023 0.1023 88.953 72.8905 0.0137 718.9048 9.8628 0.0014 0.1014 92.454 117.3909 0.0085 1163.9085 9.9148 0.0009 0.1009 94.889 304.4816 0.0033 3034.8164 9.9672 0.0003 0.1003 97.701 2048.4002 0.0001 137796.1234 9.9993 " 0.1000 99.920 13780.6123 0.0001 137796.1234 9.9993 " 0.1000 99.920	74	9.8497	0.1015	88.4973	8.9847	0.0113	0.1113	65.481	7.2881	24
17.4494 0.0573 164.4940 9,4269 0.0061 0.1061 77.077 28.1024 0.0356 271.0244 9,6442 0.0037 0.1037 83.987 45.2593 0.0221 442.5926 9,7791 0.0023 0.1023 88.953 72.8905 0.0137 718.9048 9,8628 0.0014 0.1014 92.454 117.3909 0.0085 1163.9085 9,9148 0.0009 0.1009 94.889 304.4816 0.0005 20474.0021 9,9951 " 0.1000 99.561 13780.6123 0.0001 137796.1234 9,9993 " 0.1000 99.920	25	10.8347	0.0923	98.3471	9.0770	0.0102	0.1102	67.696	7.4580	25
28.1024 0.0356 271.0244 9.6442 0.0037 0.1037 83.987 45.2593 0.0221 442.5926 9.7791 0.0023 0.1023 88.953 72.8905 0.0137 718.9048 9.8628 0.0014 0.1014 92.454 117.3909 0.0085 1163.9085 9.9148 0.0009 0.1009 94.889 304.4816 0.0003 3034.8164 9.9672 0.0003 0.1000 99.561 2048.4002 0.0001 137796.1234 9.9993 " 0.1000 99.920 13780.6123 0.0001 137796.1234 9.9993 " 0.1000 99.920	30	17.4494	0.0573	164.4940	9.4269	0.0061	0.1061	77.077	8.1762	30
45.2593 0.0221 442.5926 9.7791 0.0023 0.1023 88.953 72.8905 0.0137 718.9048 9.8628 0.0014 0.1014 92.454 117.3909 0.0085 1163.9085 9.9148 0.0009 0.1009 94.889 304.4816 0.0033 3034.8164 9.9672 0.0003 0.1003 97.701 2048.4002 0.0005 20474.0021 9.9951 " 0.1000 99.561 13780.6123 0.0001 137796.1234 9.9993 " 0.1000 99.920 10.0000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000	35	28.1024	0.0356	271.0244	9.6442	0.0037	0.1037	83.987	8.7086	(.)
72.8905 0.0137 718.9048 9.8628 0.0014 0.1014 92.454 117.3909 0.0085 1163.9085 9.9148 0.0009 0.1009 94.889 304.4816 0.0003 3034.8164 9.9672 0.0003 0.1003 97.701 2048.4002 0.0005 20474.0021 9.9951 " 0.1000 99.561 13780.6123 0.0001 137796.1234 9.9993 " 0.1000 99.920 10.0000 0.1000 0.1000 0.1000 0.1000 0.1000 0.1000	40	45.2593	0.0221	442.5926	9.7791	0.0023	0.1023	88.953	9.0962	40
117.3909 0.0085 1163.9085 9.9148 0.0009 0.1009 94.889 304.4816 0.0033 3034.8164 9.9672 0.0003 0.1003 97.701 2048.4002 0.0005 20474.0021 9.9951 " 0.1000 99.561 13780.6123 0.0001 137796.1234 9.9993 " 0.1000 99.920 10.0000 0.1000 0.1000 0.1000 99.920	45	72.8905	0.0137	718.9048	9.8628	0.0014	0.1014	92.454	9.3740	45
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	20	117.3909	0.0085	1163.9085	9.9148	0.0000	0.1009	94.889	9.5704	50
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	09	304.4816	0.0033	3034.8164	9.9672	0.0003	0.1003	97.701	9.8023	09
$13780.6123 \qquad 0.0001 \qquad 137796.1234 \qquad 9.9993 \qquad {}^{\prime\prime} \qquad 0.1000 \qquad 99.920 \\ 10.0000 \qquad \qquad 0.1000 \qquad \qquad 0.1000$	80	2048.4002	0.0005	20474.0021	9.9951	а	0.1000	99.561	6096.6	~
10.0000	00	13780.6123	0.0001	137796.1234	9.9993	а	0.1000	99.920	9.9927	100
	8				10.0000		0.1000			8

^aLess than 0.0001.

	Single Paym	yment		Uniform Series	Series		Unifo	Uniform Gradient	
	Compound	Present	Compound	Present	Sinking	Capital	Gradient	Gradient	
	Amount Factor	Worth	Amount Factor	Worth Factor	Fund Factor	Recovery Factor	Present Worth Factor	Uniform Series Factor	
	To Find F	To Find P	To Find F	To Find P	To Find A	To Find A	To Find P	To Find A	
	Given P	Given F	Given A	Given A	Given F	Given P	Given G	Given G	
>	F/P	P/F	F/A	P/A	A/F	A/P	P/G	A/G	2
	1.1200	0.8929	1.0000	0.8929	1.0000	1.1200	0.000	0.0000	
7	1.2544	0.7972	2.1200	1.6901	0.4717	0.5917	0.797	0.4717	7
3	1.4049	0.7118	3.3744	2.4018	0.2963	0.4163	2.221	0.9246	.,
4	1.5735	0.6355	4.7793	3.0373	0.2092	0.3292	4.127	1.3589	4
5	1.7623	0.5674	6.3528	3.6048	0.1574	0.2774	6.397	1.7746	5
9	1.9738	0.5066	8.1152	4.1114	0.1232	0.2432	8.930	2.1720	
_	2.2107	0.4523	10.0890	4.5638	0.0991	0.2191	11.644	2.5515	^
8	2.4760	0.4039	12.2997	4.9676	0.0813	0.2013	14.471	2.9131	∞
6	2.7731	0.3606	14.7757	5.3282	0.0677	0.1877	17.356	3.2574	6
10	3.1058	0.3220	17.5487	5.6502	0.0570	0.1770	20.254	3.5847	10
11	3.4785	0.2875	20.6546	5.9377	0.0484	0.1684	23.129	3.8953	11
12	3.8960	0.2567	24.1331	6.1944	0.0414	0.1614	25.952	4.1897	12
13	4.3635	0.2292	28.0291	6.4235	0.0357	0.1557	28.702	4.4683	13
14	4.8871	0.2046	32.3926	6.6282	0.0309	0.1509	31.362	4.7317	14
15	5.4736	0.1827	37.2797	6.8109	0.0268	0.1468	33.920	4.9803	15
16	6.1304	0.1631	42.7533	6.9740	0.0234	0.1434	36.367	5.2147	16
17	0998.9	0.1456	48.8837	7.1196	0.0205	0.1405	38.697	5.4353	17
18	7.6900	0.1300	55.7497	7.2497	0.0179	0.1379	40.908	5.6427	18
19	8.6128	0.1161	63.4397	7.3658	0.0158	0.1358	42.998	5.8375	19
70	9.6463	0.1037	72.0524	7.4694	0.0139	0.1339	44.968	6.0202	20
21	10.8038	0.0926	81.6987	7.5620	0.0122	0.1322	46.819	6.1913	21
22	12.1003	0.0826	92.5026	7.6446	0.0108	0.1308	48.554	6.3514	22
23	13.5523	0.0738	104.6029	7.7184	0.0096	0.1296	50.178	6.5010	23
24	15.1786	0.0659	118.1552	7.7843	0.0085	0.1285	51.693	6.6406	24
25	17.0001	0.0588	133.3339	7.8431	0.0075	0.1275	53.105	6.7708	25
30	29.9599	0.0334	241.3327	8.0552	0.0041	0.1241	58.782	7.2974	30
35	52.7996	0.0189	431.6635	8.1755	0.0023	0.1223	62.605	7.6577	35
40	93.0510	0.0107	767.0914	8.2438	0.0013	0.1213	65.116	7.8988	40
45	163.9876	0.0061	1358.2300	8.2825	0.0007	0.1207	66.734	8.0572	45
20	289.0022	0.0035	2400.0182	8.3045	0.0004	0.1204	67.762	8.1597	20
09	897.5969	0.0011	7471.6411	8.3240	0.0001	0.1201	68.810	8.2664	09
80	8658.4831	0.0001	72145.6925	8.3324	и	0.1200	69.326	8.3241	80
100	83522.2657	и	696010.5477	8.3332	и	0.1200	69.434	8.3321	100

^aLess than 0.0001.

7	Single Payment	int		Uniform Series	Series		Unife	Uniform Gradient	
O A I	Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
င် ထ	To Find F Given P	To Find P Given F	To Find F Given A	To Find P Given A	To Find A Given F	To Find A Given P	To Find P Given G	To Find A Given G	
	F/P	P/F	F/A	P/A	A/F	A/P	P/G	A/G	2
	1.1500	9698.0	1.0000	9698.0	1.0000	1.1500	0.000	0.0000	1
	1.3225	0.7561	2.1500	1.6257	0.4651	0.6151	0.756	0.4651	7
	1.5209	0.6575	3.4725	2.2832	0.2880	0.4380	2.071	0.9071	8
	1.7490 2.0114	0.5718	4.9934 6.7424	3.3522	0.2003	0.3503	3.786	1.3263	4 rc
	0 0 10 1	0.4222	0 7537	7 70 AE	01140	0.0640	7 200 7	0.000	2 4
	2.5151	0.4525	0.733/	0.7043	0.1142	0.2642	7.937	2.097.2	1 0
	2.6600	0.3759	11.0668	4.1604	0.0904	0.2404	10.192	2.4498	_ 0
	3.0390	0.3269	15.7268	4.48/3	0.0729	0.2229	12.481	2.7813	00
	4.0456	0.2472	20.3037	5.0188	0.0493	0.1993	16.980	3.3832	10
	A 652A	0.2149	243403	7337	0.0411	0.1911	19129	3 6540	-
	5,3503	0.1869	29.0017	5.4206	0.0345	0.1845	21.185	3.9082	12
	6.1528	0.1625	34.3519	5.5831	0.0291	0.1791	23.135	4.1438	13
	7.0757	0.1413	40.5047	5.7245	0.0247	0.1747	24.973	4.3624	14
	8.1371	0.1229	47.5804	5.8474	0.0210	0.1710	26.693	4.5650	15
	9.3576	0.1069	55.7175	5.9542	0.0179	0.1679	28.296	4.7522	16
	10.7613	0.0929	65.0751	6.0472	0.0154	0.1654	29.783	4.9251	17
	12.3755	0.0808	75.8364	6.1280	0.0132	0.1632	31.157	5.0843	18
	14.2318	0.0703	88.2118	6.1982	0.0113	0.1613	32.421	5.2307	19
	16.3665	0.0611	102.4436	6.2593	0.0098	0.1598	33.582	5.3651	20
	18.8215	0.0531	118.8101	6.3125	0.0084	0.1584	34.645	5.4883	21
	21.6447	0.0462	137.6316	6.3587	0.0073	0.1573	35.615	5.6010	22
	24.8915	0.0402	159.2764	6.3988	0.0063	0.1563	36.499	5.7040	23
	28.6252	0.0349	184.1678	6.4338	0.0054	0.1554	37.302	5.7979	24
	32.9190	0.0304	212.7930	6.4641	0.0047	0.1547	38.031	5.8834	22
	66.2118	0.0151	434.7451	0.5660	0.0023	0.1523	40.753	6.2066	30
	133.1755	0.0075	881.1702	6.6166	0.0011	0.1511	42.359	6.4019	35
	267.8635	0.0037	1779.0903	6.6418	0.0006	0.1506	43.283	6.5168	40
	538.7693	0.0019	3585.1285	6.6543	0.0003	0.1503	43.805	6.5830	45
1	1083.6574	0.0000	7217.7163	6.6605	0.0001	0.1501	44.096	6.6205	20
4	4383.9987	0.0002	29219.9916	6.6651	а	0.1500	44.343	6.6530	09
7	71750.8794	и	478332.5293	9999.9	и	0.1500	44.436	92999	80
1174	1174313.4507	v	7828749.6713	6.6667	и	0.1500	44.444	9999'9	100

^aLess than 0.0001.

	Single Paym	ayment		Uniform Series	Series		Unifo	Uniform Gradient	
	Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
2	To Find F Given P F/P	To Find P Given F P/F	To Find F Given A F/A	To Find P Given A P/A	To Find A Given F A/F	To Find A Given P A/P	To Find P Given G P/G	To Find A Given G A/G	>
₩.	1.1800	0.8475	1.0000	0.8475	1.0000	1.1800	0.000	0.0000	Τ.
0 m	1.3924 1.6430	0.7182 0.6086	2.1800 3.5724	1.5656 2.1743	0.4587 0.2799	0.6387 0.4599	0.718 1.935	0.4587 0.8902	0 K
4 5	1.9388 2.2878	0.5158 0.4371	5.2154 7.1542	2.6901 3.1272	0.1917 0.1398	0.3717 0.3198	3.483 5.231	1.2947	4 7
9	2.6996	0.3704	9.4420	3.4976	0.1059	0.2859	7.083	2.0252	9
^	3.1855	0.3139	12.1415	3.8115	0.0824	0.2624	8.967	2.3526	
∞ o	3.7589	0.2660	15.3270	4.0776	0.0652	0.2452	10.829 12 633	2.6558 2.9358	∞ σ
10	5.2338	0.1911	23.5213	4.4941	0.0425	0.2225	14.353	3.1936	10
11	6.1759	0.1619	28.7551	4.6560	0.0348	0.2148	15.972	3.4303	11
12	7.2876	0.1372	34.9311	4.7932	0.0286	0.2086	17.481	3.6470	12
13	8.5994	0.1163	42.2187	4.9095	0.0237	0.2037	18.877	3.8449	13
41 51	10.1472 11.9737	0.0985	50.8180 60.9653	5.0081	0.0197 0.0164	0.1997 0.1964	20.158 21.327	4.0250 4.1887	14 15
16	14 1200	80200	77 0200	7 1601	0.0127	0.1027	280	4 2260	16
17	16.6722	0.0600	87.0680	5.2223	0.0115	0.1915	23.348	4.4708	17
18	19.6733	0.0508	103.7403	5.2732	9600.0	0.1896	24.212	4.5916	18
19	23.2144	0.0431	123.4135	5.3162	0.0081	0.1881	24.988	4.7003	19
20	27.3930	0.0365	146.6280	5.3527	0.0068	0.1868	25.681	4.7978	20
21	32.3238	0.0309	174.0210	5.3837	0.0057	0.1857	26.300	4.8851	21
22	38.1421	0.0262	206.3448	5.4099	0.0048	0.1848	26.851	4.9632	22
23	45.0076	0.0222	244.4868	5.4321	0.0041	0.1841	27.339	5.0329	23
24	53.1090	0.0188	289.4945	5.4509	0.0035	0.1835	27.773	5.0950	24
25	62.6686	0.0160	342.6035	5.4669	0.0029	0.1829	28.156	5.1502	25
30	143.3706	0.0070	790.9480	5.5168	0.0013	0.1813	29.486	5.3448	30
35	327.9973	0.0030	1816.6516	5.5386	9000:0	0.1806	30.177	5.4485	35
40	750.3783	0.0013	4163.2130	5.5482	0.0002	0.1802	30.527	5.5022	40
45 50	1716.6839 3927.3569	0.0006	9531.5771 21813.0937	5.5523 5.5541	0.0001 a	0.1801 0.1800	30.701 30.786	5.5293 5.5428	45 50
09	20555.1400	и	114189.6665	5.5553	а	0.1800	30.847	5.5526	09
80	563067.6604	а	3128148.1133	5.5555	а	0.1800	30.863	5.554	80
8									

^aLess than 0.0001.

		>	17645	6 7 8 9 10	11 12 14 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	16 17 18 19 20	21 22 23 24 25	30 35 40 45 50	9 8 8
Uniform Gradient	Gradient Uniform Series Factor	To Find A Given G A/G	0.0000 0.4545 0.8791 1.2742 1.6405	1.9788 2.2902 2.5756 2.8364 3.0739	3.2893 3.4841 3.6597 3.8175 3.9588	4.0851 4.1976 4.2975 4.3861 4.4643	4.5334 4.5941 4.6475 4.6943 4.7352	4.8731 4.9406 4.9728 4.9877 4.9945	4.9989 5.0000
Unifo	Gradient Present Worth Factor	To Find P Given G P/G	0.000 0.694 1.852 3.299 4.906	6.581 8.255 9.883 11.434 12.887	14.233 15.467 16.588 17.601 18.510	19.321 20.042 20.681 21.244 21.740	22.174 22.555 22.887 23.176 23.428	24.263 24.661 24.847 24.932 24.970	24.994 25.000
	Capital Recovery Factor	To Find A Given P A/P	1.2000 0.6545 0.4747 0.3863 0.3344	0.3007 0.2774 0.2606 0.2481 0.2385	0.2311 0.2253 0.2206 0.2169 0.2139	0.2114 0.2094 0.2078 0.2065 0.2054	0.2044 0.2037 0.2031 0.2025 0.2021	0.2008 0.2003 0.2001 0.2001 0.2000	0.2000 0.2000 0.2000
Series	Sinking Fund Factor	To Find A Given F A/F	1.0000 0.4545 0.2747 0.1863 0.1344	0.1007 0.0774 0.0606 0.0481 0.0385	0.0311 0.0253 0.0206 0.0169 0.0139	0.0114 0.0094 0.0078 0.0065 0.0054	0.0044 0.0037 0.0031 0.0025 0.0021	0.0008 0.0003 0.0001 0.0001	a a
Uniform Series	Present Worth Factor	To Find P Given A P/A	0.8333 1.5278 2.1065 2.5887 2.9906	3.3255 3.6046 3.8372 4.0310 4.1925	4.3271 4.4392 4.5327 4.6106 4.6755	4.7296 4.7746 4.8122 4.8435 4.8696	4.8913 4.9094 4.9245 4.9371 4.9476	4.9789 4.9915 4.9966 4.9986 4.9995	4.9999 5.0000 5.0000
	Compound Amount Factor	To Find F Given A F/A	1.0000 2.2000 3.6400 5.3680 7.4416	9.9299 12.9159 16.4991 20.7989 25.9587	32.1504 39.5805 48.4966 59.1959 72.0351	87.4421 105.9306 128.1167 154.7400 186.6880	225.0256 271.0307 326.2369 392.4842 471.9811	1181.8816 2948.3411 7343.8578 18281.3099 45497.1908	281732.5718 10801137.3101
ant	Present Worth Factor	To Find P Given F P/F	0.8333 0.6944 0.5787 0.4823 0.4019	0.3349 0.2791 0.2326 0.1938 0.1615	0.1346 0.1122 0.0935 0.0779 0.0649	0.0541 0.0451 0.0376 0.0313 0.0261	0.0217 0.0181 0.0151 0.0126 0.0105	0.0042 0.0017 0.0007 0.0003	a a
Single Payment	Compound Amount Factor	To Find F Given P F/P	1.2000 1.4400 1.7280 2.0736 2.4883	2.9860 3.5832 4.2998 5.1598 6.1917	7.4301 8.9161 10.6993 12.8392 15.4070	18.4884 22.1861 26.6233 31.9480 38.3376	46.0051 55.2061 66.2474 79.4968 95.3962	237.3763 590.6682 1469.7716 3657.2620 9100.4382	56347.5144 2160228.4620
		>	12645	6 7 8 9 10	11 12 13 14 15	16 17 18 19 20	21 22 23 24 25	30 35 40 45 50	9 8 8

TABLE C-17 Discrete Compounding; *i* = 20%

^aLess than 0.0001.

		Single Payment		Uniform Series	Series		Unifo	Uniform Gradient	
	Compound Amount Factor	Present Worth Factor	Compound Amount Factor	Present Worth Factor	Sinking Fund Factor	Capital Recovery Factor	Gradient Present Worth Factor	Gradient Uniform Series Factor	
2	To Find <i>F</i> Given <i>P</i> <i>F/P</i>	To Find P Given F P/F	To Find F Given A F/A	To Find P Given A P/A	To Find A Given F A/F	To Find A Given P A/P	To Find P Given G P/G	To Find A Given G A/G	>
	1.2500	0.8000	1.0000	0.8000	1.0000	1.2500	0.000	0.0000	
٥.	1.5625	0.6400	2.2500	1.4400	0.4444	0.6944	0.640	0.4444	
3	1.9531	0.5120	3.8125	1.9520	0.2623	0.5123	1.664	0.8525	.,
4 5	2.4414 3.0518	0.4096 0.3277	5.7656 8.2070	2.3616 2.6893	0.1734 0.1218	0.4234 0.3718	2.893	1.2249	4 7
9	3.8147	0.2621	11.2588	2.9514	0.0888	0.3388	5.514	1.8683	
_	4.7684	0.2097	15.0735	3.1611	0.0663	0.3163	6.773	2.1424	
. ∞	5.9605	0.1678	19.8419	3.3289	0.0504	0.3004	7.947	2.3872	. ∞
6	7.4506	0.1342	25.8023	3.4631	0.0388	0.2888	9.021	2.6048	
10	9.3132	0.1074	33.2529	3.5705	0.0301	0.2801	6.987	2.7971	10
11	11.6415	0.0859	42.5661	3.6564	0.0235	0.2735	10.846	2.9663	11
12	14.5519	0.0687	54.2077	3.7251	0.0184	0.2684	11.602	3.1145	12
13	18.1899	0.0550	68.7596	3.7801	0.0145	0.2645	12.262	3.2437	13
14	22.7374	0.0440	86.9495	3.8241	0.0115	0.2615	12.833	3.3559	14
15	28.4217	0.0352	109.6868	3.8593	0.0091	0.2591	13.326	3.4530	15
16	35.5271	0.0281	138.1085	3.8874	0.0072	0.2572	13.748	3.5366	16
17	44.4089	0.0225	173.6357	3.9099	0.0058	0.2558	14.109	3.6084	17
18	55.5112	0.0180	218.0446	3.9279	0.0046	0.2546	14.415	3.6698	18
19	6888:69	0.0144	273.5558	3.9424	0.0037	0.2537	14.674	3.7222	19
20	86.7362	0.0115	342.9447	3.9539	0.0029	0.2529	14.893	3.7667	20
21	108.4202	0.0092	429.6809	3.9631	0.0023	0.2523	15.078	3.8045	21
22	135.5253	0.0074	538.1011	3.9705	0.0019	0.2519	15.233	3.8365	22
23	169.4066	0.0059	673.6264	3.9764	0.0015	0.2515	15.363	3.8634	23
24	211.7582	0.0047	843.0329	3.9811	0.0012	0.2512	15.471	3.8861	24
10	264.6978	0.0038	1054.7912	3.9849	6000.0	0.2509	15.562	3.9052	23
30	807.7936	0.0012	3227.1743	3.9950	0.0003	0.2503	15.832	3.9628	30
35	2465.1903	0.0004	9856.7613	3.9984	0.0001	0.2501	15.937	3.9858	35
40	7523.1638	0.0001	30088.6554	3.9995	а	0.2500	15.977	3.9947	40
	22958.8740	а	91831.4962	3.9998	а	0.2500	15.992	3.9980	45
50 7	70064.9232	и	280255.6929	3.9999	В	0.2500	15.997	3.9993	50
9 09	652530.4468	_B	2610117.7872	4.0000	а	0.2500 0.2500	16.000	3.9999	3 8

APPENDIX D

Interest and Annuity Tables for Continuous Compounding

For various values of r from 8% to 20%,

r = nominal interest rate per period, compounded continuously N = number of compounding periods

$$(F/P, \underline{r}\%, N) = e^{rN}$$

$$(P/F, \underline{r}\%, N) = e^{-rN} = \frac{1}{e^{rN}}$$

$$(F/A,\underline{r}\%,N) = \frac{e^{rN} - 1}{e^r - 1}$$

$$(P/A, \underline{r}\%, N) = \frac{e^{rN} - 1}{e^{rN} (e^r - 1)}.$$

TABLE D-1 Continuous Compounding; r = 8%

		Discre	te Flows		
	Single Paym	ent	Uniform	Series	•
	Compound	Present	Compound	Present	•
	Amount	Worth	Amount	Worth	
	Factor	Factor	Factor	Factor	-
	To Find F	To Find P	To Find F	To Find P	
N	Given <i>P</i> F/P	Given <i>F</i> <i>P/F</i>	Given A F/A	Given A P/A	Ν
	,	,	,		
1 2	1.0833 1.1735	0.9231 0.8521	1.0000 2.0833	0.9231 1.7753	1 2
3	1.2712	0.7866	3.2568	2.5619	3
4	1.3771	0.7261	4.5280	3.2880	4
5	1.4918	0.6703	5.9052	3.9584	5
6	1.6161	0.6188	7.3970	4.5771	6
7	1.7507	0.5712	9.0131	5.1483	7
8	1.8965	0.5273	10.7637	5.6756	8
9 10	2.0544 2.2255	0.4868 0.4493	12.6602 14.7147	6.1624 6.6117	9 10
11	2.4109	0.4148	16.9402	7.0265	11
12 13	2.6117 2.8292	0.3829 0.3535	19.3511 21.9628	7.4094 7.7629	12 13
13	3.0649	0.3263	24.7920	8.0891	13
15	3.3201	0.3012	27.8569	8.3903	15
16	3.5966	0.2780	31.1770	8.6684	16
17	3.8962	0.2567	34.7736	8.9250	17
18	4.2207	0.2369	38.6698	9.1620	18
19 20	4.5722 4.9530	0.2187 0.2019	42.8905 47.4627	9.3807 9.5826	19 20
21 22	5.3656 5.8124	0.1864 0.1720	52.4158 57.7813	9.7689 9.9410	21 22
23	6.2965	0.1588	63.5938	10.0998	23
24	6.8120	0.1466	69.8903	10.2464	24
25	7.3891	0.1353	76.7113	10.3817	25
26	8.0045	0.1249	84.1003	10.5067	26
27	8.6711	0.1153	92.1048	10.6220	27
28 29	9.3933 10.1757	0.1065 0.0983	100.776 110.169	10.7285 10.8267	28 29
30	11.0232	0.0907	120.345	10.9174	30
35	16.4446	0.0608	185.439	11.2765	35
40	24.5325	0.0408	282.547	11.5172	40
45	36.5982	0.0273	427.416	11.6786	45
50	54.5982	0.0183	643.535	11.7868	50
55	81.4509	0.0123	965.947	11.8593	55
60 65	121.510 181.272	0.0082	1446.93	11.9079	60
65 70	181.272 270.426	0.0055 0.0037	2164.47 3234.91	11.9404 11.9623	65 70
75	403.429	0.0025	4831.83	11.9769	75
80	601.845	0.0017	7214.15	11.9867	80
85	897.847	0.0011	10768.1	11.9933	85
90	1339.43	0.0007	16070.1	11.9977	90
95 100	1998.20	0.0005	23979.7	12.0007	95 100
100	2980.96	0.0003	35779.3	12.0026	100

TABLE D-2 Continuous Compounding; r = 10%

Single Payment			Discre	te Flows		
Amount Factor F		Single Paymo	ent	Uniform	Series	
Factor Factor Factor Factor Factor Given P Given P Given F Given A Given A Given A P./A N		Compound	Present	Compound	Present	
To Find F Given F Given F Given A Given A F/P P/F F/A P/A N		Amount	Worth	Amount	Worth	
N F/P P/F F/A P/A N		Factor	Factor	Factor	Factor	
N F/P P/F F/A P/A N		To Find F	To Find P	To Find F	To Find P	
1 1.1052 0.9048 1.0000 0.9048 1 2 1.2214 0.8187 2.1052 1.7236 2 3 1.3499 0.7408 3.3266 2.4644 3 4 1.4918 0.6703 4.6764 3.1347 4 5 1.6487 0.6065 6.1683 3.7412 5 6 1.8221 0.5488 7.8170 4.2900 6 7 2.0138 0.4966 9.6391 4.7866 7 8 2.2255 0.4493 11.6528 5.2360 8 9 2.4596 0.4066 13.8784 5.6425 9 10 2.7183 0.3679 16.3380 60.0104 10 11 3.0042 0.3329 19.0563 6.3433 11 12 3.3201 0.3012 22.0604 6.6445 12 13 3.6693 0.2725 25.3806 6.9170 13 14 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
2 1.2214 0.8187 2.1052 1.7236 2 3 1.3499 0.7408 3.3266 2.4644 3 4 1.4918 0.6703 4.6764 3.1347 4 5 1.6487 0.6065 6.1683 3.7412 5 6 1.8221 0.5488 7.8170 4.2900 6 7 2.0138 0.4966 9.6391 4.7866 7 8 2.2255 0.4493 11.6528 5.2360 8 9 2.4596 0.4066 13.8784 5.6425 9 10 2.7183 0.3679 16.3380 6.0104 10 11 3.0042 0.3329 19.0563 6.3433 11 12 3.3201 0.3012 22.0604 6.6445 12 13 3.6693 0.2725 25.3806 6.9170 13 14 4.0552 0.2466 29.0499 7.1636 14 15 <	N	F/P	P/F	F/A	P/A	N
3 1,3499 0,7408 3,3266 2,4644 3 4 1,4918 0,6703 4,6764 3,1347 4 5 1,6487 0,6065 6,1683 3,7412 5 6 1,8221 0,5488 7,8170 4,2900 6 7 2,0138 0,4966 9,6391 4,7866 7 8 2,2255 0,4493 11,6528 5,2360 8 9 2,4596 0,4066 13,8784 5,6425 9 10 2,7183 0,3679 16,3380 6,0104 10 11 3,0042 0,3329 19,0563 6,3433 11 12 3,3201 0,3012 22,0604 6,6445 12 13 3,6693 0,2725 25,3806 6,9170 13 14 4,0552 0,2466 29,0499 7,1636 14 15 4,4817 0,2231 33,1051 7,3867 15 16		1.1052	0.9048	1.0000	0.9048	
4 1.4918 0.6703 4.6764 3.1347 4 5 1.6487 0.6065 6.1683 3.7412 5 6 1.8221 0.5488 7.8170 4.2900 6 7 2.0138 0.4966 9.6391 4.7866 7 8 2.2255 0.4493 11.6528 5.2360 8 9 2.4596 0.4066 13.8784 5.6425 9 10 2.7183 0.3679 16.3380 6.0104 10 11 3.0042 0.3329 19.0563 6.3433 11 12 3.3201 0.3012 22.0604 6.6445 12 13 3.6693 0.2725 25.3806 6.9170 13 14 4.0552 0.2466 29.0499 7.1636 14 15 4.4817 0.2231 33.1051 7.3867 15 16 4.9530 0.2019 37.5867 7.5886 16 17	2					2
5 1.6487 0.6065 6.1683 3.7412 5 6 1.8221 0.5488 7.8170 4.2900 6 7 2.0138 0.4966 9.6391 4.7866 7 8 2.2255 0.4493 11.6528 5.2360 8 9 2.4596 0.4066 13.8784 5.6425 9 10 2.7183 0.3679 16.3380 6.0104 10 11 3.0042 0.3329 19.0563 6.3433 11 12 3.3201 0.3012 22.0604 6.6445 12 13 3.6693 0.2725 25.3806 6.9170 13 14 4.0552 0.2466 29.0499 7.1636 14 15 4.4817 0.2231 33.1051 7.3867 15 16 4.9530 0.2019 37.5867 7.5886 16 17 5.4739 0.1827 42.5398 7.7713 17 18						
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24 11.0232 0.0907 95.3037 8.6458 24 25 12.1825 0.0821 106.327 8.7278 25 26 13.4637 0.0743 118.509 8.8021 26 27 14.8797 0.0672 131.973 8.8693 27 28 16.4446 0.0608 146.853 8.9301 28 29 18.1741 0.0550 163.298 8.9852 29 30 20.0855 0.0498 181.472 9.0349 30 35 33.1155 0.0302 305.364 9.2212 35 40 54.5981 0.0183 509.629 9.3342 40 45 90.0171 0.0111 846.404 9.4027 45 50 148.413 0.0067 1401.65 9.4443 50 55 244.692 0.0041 2317.10 9.4695 55 60 403.429 0.0025 3826.43 9.4848 60						
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26 13.4637 0.0743 118.509 8.8021 26 27 14.8797 0.0672 131.973 8.8693 27 28 16.4446 0.0608 146.853 8.9301 28 29 18.1741 0.0550 163.298 8.9852 29 30 20.0855 0.0498 181.472 9.0349 30 35 33.1155 0.0302 305.364 9.2212 35 40 54.5981 0.0183 509.629 9.3342 40 45 90.0171 0.0111 846.404 9.4027 45 50 148.413 0.0067 1401.65 9.4443 50 55 244.692 0.0041 2317.10 9.4695 55 60 403.429 0.0025 3826.43 9.4848 60 65 665.142 0.0015 6314.88 9.4940 65 70 1096.63 0.0009 10417.6 9.4997 70		11.0232	0.0907	95.3037	8.6458	
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28 16.4446 0.0608 146.853 8.9301 28 29 18.1741 0.0550 163.298 8.9852 29 30 20.0855 0.0498 181.472 9.0349 30 35 33.1155 0.0302 305.364 9.2212 35 40 54.5981 0.0183 509.629 9.3342 40 45 90.0171 0.0111 846.404 9.4027 45 50 148.413 0.0067 1401.65 9.4443 50 55 244.692 0.0041 2317.10 9.4695 55 60 403.429 0.0025 3826.43 9.4848 60 65 665.142 0.0015 6314.88 9.4940 65 70 1096.63 0.0009 10417.6 9.4997 70 75 1808.04 0.0006 17182.0 9.5031 75 80 2980.96 0.0003 28334.4 9.5051 80	26	13.4637	0.0743	118.509	8.8021	26
29 18.1741 0.0550 163.298 8.9852 29 30 20.0855 0.0498 181.472 9.0349 30 35 33.1155 0.0302 305.364 9.2212 35 40 54.5981 0.0183 509.629 9.3342 40 45 90.0171 0.0111 846.404 9.4027 45 50 148.413 0.0067 1401.65 9.4443 50 55 244.692 0.0041 2317.10 9.4695 55 60 403.429 0.0025 3826.43 9.4848 60 65 665.142 0.0015 6314.88 9.4940 65 70 1096.63 0.0009 10417.6 9.4997 70 75 1808.04 0.0006 17182.0 9.5031 75 80 2980.96 0.0003 28334.4 9.5051 80 85 4914.77 0.0002 46721.7 9.5064 85 90 8103.08 0.0001 77037.3 9.5072 90 95 13359.7 127019.0 9.5076 95		14.8797	0.0672	131.973		
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95 13359.7 ^a 127019.0 9.5076 95						
	100		а			100

^aLess than 0.0001.

TABLE D-3 Continuous Compounding; r = 20%

		Discret	e Flows		
	Single Payme	ent	Uniform	Series	_
	Compound	Present	Compound	Present	-
	Amount	Worth	Amount	Worth	
	Factor	Factor	Factor	Factor	_
	To Find F	To Find P	To Find F	To Find P	
	Given P	Given F	Given A	Given A	
N	F/P	P/F	F/A	P/A	Ν
1	1.2214	0.8187	1.0000	0.8187	1
2	1.4918	0.6703	2.2214	1.4891	2
3	1.8221	0.5488	3.7132	2.0379	3
4	2.2255	0.4493	5.5353	2.4872	4
5	2.7183	0.3679	7.7609	2.8551	5
6	3.3201	0.3012	10.4792	3.1563	6
7	4.0552	0.2466	13.7993	3.4029	7
8 9	4.9530	0.2019	17.8545	3.6048 3.7701	8 9
9 10	6.0496 7.3891	0.1653 0.1353	22.8075 28.8572	3.9054	10
11 12	9.0250 11.0232	0.1108 0.0907	36.2462 45.2712	4.0162	11 12
12	11.0232	0.0907	45.2/12 56.2944	4.1069 4.1812	13
14	16.4446	0.0608	69.7581	4.1612	14
15	20.0855	0.0498	86.2028	4.2918	15
16	24.5325	0.0408	106.288	4.3325	16
17	29.9641	0.0334	130.821	4.3659	17
18	36.5982	0.0273	160.785	4.3932	18
19	44.7012	0.0224	197.383	4.4156	19
20	54.5981	0.0183	242.084	4.4339	20
21	66.6863	0.0150	296.682	4.4489	21
22	81.4509	0.0123	363.369	4.4612	22
23	99.4843	0.0101	444.820	4.4713	23
24	121.510	0.0082	544.304	4.4795	24
25	148.413	0.0067	665.814	4.4862	25
26	181.272	0.0055	814.227	4.4917	26
27	221.406	0.0045	995.500	4.4963	27
28	270.426	0.0037	1216.91	4.5000	28
29	330.299	0.0030	1487.33	4.5030	29
30	403.429	0.0025	1817.63	4.5055	30
35	1096.63	0.0009	4948.60	4.5125	35
40	2980.96	0.0003	13459.4	4.5151	40
45 50	8103.08	0.0001	36594.3	4.5161	45 50
50 55	22026.5 59874.1	а	99481.4 270426.0	4.5165 4.5166	50 55
		а			
60	162755.0	**	735103.0	4.5166	60

 $[^]a\mathrm{Less}$ than 0.0001.