# Østfold University College

# Halden

Re-exam: Global Markets and Institutions, spring 2016

Date: May 20, 2016

**Duration: 4 hours** 

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# **Instructions**

1- You are allowed to have a <u>personal calculator</u> and a <u>dictionary</u> with you. However, notes, books, financial calculator ... etc. are <u>NOT ALLOWED</u>

<u>Choose only 4 of the given 5 questions.</u> This exam gives max 80 points, 20 points for each question. To pass the exam you need 40 points:

72 points for an A

64 points for B

56 points for C

48 points for D

40 points for E

2- Be brief and to the point.

Good Luck!

Maher Asal

# Question 1 (20 points)

- a) 10p
  - i. Calculate Duration on a \$ 1000 Ten-Year 10% Coupon Bond when the market interest rate (discount rate) is 20%.
  - ii. Use the discounted cash method to calculate the price of the bond.
  - iii. Calculate the expected price change if interest rates rise to 11 % using the duration approximation.
- b) Consider a 30-year, fixed-rate mortgage for 3000,000 NOK at a nominal rate of 6 % compounded monthly.
  - a. Construct an amortization schedule for the first 6 months. (6p)
  - b. If the borrower wants to pay off the remaining balance on the mortgage after 5 years, what is the remaining balance on the mortgage? (2p)
  - c. If the borrower wants to pay off the remaining balance on the mortgage after 15 years, what is the remaining balance on the mortgage? (2p)

# **Question 2 (20 points)**

- a) Assume there are only two stocks traded in the stock market, and you are trying to construct an index to show what has happened to stock prices. Let us say that in the base year the prices were \$25 per share for stock 1 with 100 million shares outstanding and \$12 for stock 2 with 50 million shares outstanding. A year later, the prices are \$32 per share for stock 1 and \$8 per share for stock 2. Using the Dow Jones index and the S&P 500 index, compute stock indexes showing what has happened to the overall stock market. Which of the two methods do you prefer and why?

  5p
- b) You have a credit card with a quoted annual percentage rate of 6.2 %. Interest is applied to your account monthly (monthly compounding). What is the effective annual rate? 5p
- c) You will receive \$17,000 a year for the next five years from a trust fund your Father is establishing. What is this gift worth today at 8 % discount rate?

  5 p

d) You want to purchase a new house and you are willing to pay 5 000 000 kr. If you can invest at 6 % per year and you currently have 1 800 000 kr, how long will it be before you have enough money to pay cash for this house?

5p

# **Question 3 (20 points)**

- a) A security's price fully reflects all available information in an efficient market. Is this statement true, false, or uncertain? Explain your answer. What are the different forms of market efficiency? How would you test for market efficiency?
- b) VOLVO Corporation just paid their annual dividend of SEK 4.5 a share. VOLVO's policy is to increase the dividend by 3% annually. How much are you willing to pay today for a share of this stock if you require a 12.5% rate of return?

  5p
- c) Consider a coupon bond that has a \$1,000 face value and a coupon rate of 10%. The bond is currently selling for \$1,217 and has 9 years to maturity. What is the bond's yield to maturity (YTM)? Explain why would anybody buy this bond; paying today \$1217 to get \$1000 9 years later.
- d) A bond has a 12 % coupon rate, matures in 20 years and pays interest semi-annually. The face value is \$1,000. What is the current price of this bond if the market rate of return (e.g. the discount rate) is 8 %? Is this bond is selling at par, premium or discount? What is the current yield? Is the yield to maturity (YTM) for this bond is higher or lower than the current yield?5p

### Question 4 (20 points)

Three stocks; A, B and C with the following information:

State	Probability	Return on stock	Return on stock	Return on stock
		(A)	(B)	(C)
Boom	.55	.12	.16	.18
Recession	.45	.09	.06	.04

- i. Calculate the expected return for each of these three stocks
- ii. Calculate the standard deviations for each of these three stocks
- iii. If you have to choose only one stock, based on expected return and risk, which stock would you choose?
- iv. If the risk-free interest rate is 4%, calculate the risk premium for each stock.
- v. Calculate portfolios expected returns and the standard deviation if you invest 40% of your money on stock (A), 30% on stock (b) and 30% on stock (C).

# **Question 5 (20 Points)**

- a) There are at least five primary classes of mutual funds available to investors. Define these five classes. What are the load fund? What distinguishes a hedge fund from other types of mutual funds?
- b) A zero coupon bond has a par value of \$1,000 and matures in 10 years. The bond is selling for \$600 today. What is the yield to maturity for this bond?

  5p
- c) You own a \$1,000-par zero-coupon bond that has 5 years of remaining maturity. You plan on selling the bond in one year and believe that the required yield next year will have the following probability distribution:

Probability	Required Yield
0.1	6.60%
0.2	6.75%
0.4	7.00%
0.2	7.20%
0.1	7.45%

- a. What is your expected price when you sell the bond?
- b. What is the standard deviation?

APPENDIX

В

# Monthly Compound Interest Tables

6.00% ANNUAL INTEREST RATE

0.5000% MONTHLY EFFECTIVE INTEREST RATE

	1 AMOUNT OF \$1 AT COMPOUND	2 ACCUMULATION OF \$1	3 SINKING FUND	PRESENT VALUE REVERSION	5 PRESENT VALUE ORD. ANNUITY	6 INSTALLMENT TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
MONTHS							MONTI
1	1.005000	1.000000	1.000000	0.995025	0.995025	1.005000	1
2	1.010025	2.005000	0.498753	0.990075	1.985099	0.503753	2
3	1.015075	3.015025	0.331672	0.985149	2.970248	0.336672	3
4	1.020151	4.030100	0.248133	0.980248	3.950496	0.253133	4
5	1.025251	5.050251	0.198010	0.975371	4.925866	0.203010	5
6	1.030378	6.075502	0.164595	0.970518	5.896384	0.169595	6
7	1.035529	7.105879	0.140729	0.965690	6.862074	0.145729	7
8	1.040707	8.141409	0.122829	0.960885	7.822959	0.127829	8
9				0.956105			9
	1.045911	9.182116	0.108907		8.779064	0.113907	
10	1.051140	10.228026	0.097771	0.951348	9.730412	0.102771	10
11	1.056396	11.279167	0.088659	0.946615	10.677027	0.093659	11
12	1.061678	12.335562	0.081066	0.941905	11.618932	0.086066	12
YEARS							MONTI
1	1.061678	12.335562	0.081066	0.941905	11.618932	0.086066	12
2	1.127160	25.431955	0.039321	0.887186	22.562866	0.044321	24
3	1.196681	39.336105	0.025422	0.835645	32.871016	0.030422	36
4	1,270489	54.097832	0.018485	0.787098	42.580318	0.023485	48
5	1.348850	69.770031	0.014333	0.741372	51.725561	0.019333	60
6	1.432044	86.408856	0.011573	0.698302	60.339514	0.016573	72
7	1.520370	104.073927	0.009609	0.657735	68.453042	0.014609	84
8	1.614143	122.828542	0.008141	0.619524	76.095218	0.013141	96
9	1.713699	142.739900	0.007006	0.583533	83.293424	0.012006	108
10	1.819397	163.879347	0.006102	0.549633	90.073453	0.011102	120
11	1.931613	186.322629	0.005367	0.517702	96.459599	0.010367	132
12	2.050751	210.150163	0.004759	0.487626	102.474743	0.009759	144
13	2.177237	235.447328	0.004247	0.459298	108.140440	0.009247	156
14	2.311524	262.304766	0.003812	0.432615	113.476990	0.008812	168
15	2.454094	290.818712	0.003439	0.407482	118.503515	0.008439	180
16	2.605457	321.091337	0.003114	0.383810	123.238025	0.008114	192
17	2.766156	353.231110	0.002831	0.361513	127.697486	0.007831	204
18	2.936766	387.353194	0.002582	0.340511	131.897876	0.007582	216
19	3.117899	423.579854	0.002361	0.320729	135.854246	0.007361	228
20	3.310204	462.040895	0.002164	0.302096	139.580772	0.007164	240
21	3.514371	502.874129	0.001989	0.284546	143.090806	0.006989	252
22	3.731129	546.225867	0.001989	0.268015	146.396927	0.006831	264
							276
23	3.961257	592.251446	0.001688	0.252445	149.510979	0.006688	
24 25	4.205579 4.464970	641.115782 692.993962	0.001560 0.001443	0.23 <i>777</i> 9 0.223966	152.444121 155.206864	0.006560 0.006443	288 300
26	4.740359	748.071876	0.001337	0.210954	157.809106	0.006337	312
27	5.032734	806.546875	0.001240	0.198699	160.260172	0.006240	324
28	5.343142	868.628484	0.001151	0.187156	162.568844	0.006151	336
29	5.672696	934.539150	0.001070	0.176283	164.743394	0.006070	348
30	6.022575	1004.515042	0.000996	0.166042	166.791614	0.005996	360
31	6.394034	1078.806895	0.000927	0.156396	168.720844	0.005927	372
32	6.788405	1157.680906	0.000864	0.147310	170.537996	0.005864	384
33	7.207098	1241.419693	0.000806	0.138752	172.249581	0.005806	396
34	7.651617	1330.323306	0.000752	0.130691	173.861732	0.005752	408
35	8.123551	1424.710299	0.000702	0.123099	175.380226	0.005702	420
36	8.624594	1524.918875	0.000656	0.115947	176.810504	0.005656	432
			0.000613				444
37	9.156540	1631.308097		0.109212	178.157690	0.005613	
38	9.721296	1744.259173	0.000573	0.102867	179.426611	0.005573	456
39	10.320884	1864.176824	0.000536	0.096891	180.621815	0.005536	468
40	10.957454	1991.490734	0.000502	0.091262	181.747584	0.005502	480

MONTHLY COMPOUND INTEREST TABLES

#### 0.5833% MONTHLY EFFECTIVE INTEREST RATE

	1 AMOUNT OF \$1	2 ACCUMULATION	3 Sinking	4 PRESENT VALUE	5 PRESENT VALUE	6 Installment	
	AT COMPOUND INTEREST	OF \$1 PER PERIOD	FUND FACTOR	REVERSION OF \$1	ORD. ANNUITY \$1 PER PERIOD	TO AMORTIZE \$1	
MONTHS							MONT
1	1.005833	1.000000	1.000000	0.994200	0.994200	1.005833	1
2	1.011701	2.005833	0.498546	0.988435	1.982635	0.504379	2
3	1.017602	3.017534	0.331396	0.982702	2.965337	0.337230	3
4	1.023538	4.035136	0.247823	0.977003	3.942340	0.253656	4
5	1.029509	5.058675	0.197680	0.971337	4.913677	0.203514	5
6	1.035514	6.088184	0.164253	0.965704	5.879381	0.170086	6
7	1.041555	7.123698	0.140377	0.960103	6.839484	0.146210	7
8	1.047631	8.165253	0.122470	0.954535	7.794019	0.128304	8
9	1.053742	9.212883	0.108544	0.948999	8.743018	0.114377	9
10	1.059889	10.266625	0.097403	0.943495	9.686513	0.103236	10
11	1.066071	11.326514	0.088288	0.938024	10.624537	0.094122	11
12	1.072290	12.392585	0.080693	0.932583	11.557120	0.086527	12
YEARS							MONT
1	1.072290	12.392585	0.080693	0.932583	11.557120	0.086527	12
2	1.149806	25.681032	0.038939	0.869712	22.335099	0.044773	24
3	1.232926	39.930101	0.025044	0.811079	32.386464	0.030877	36
4	1.322054	55.209236	0.018113	0.756399	41.760201	0.023946	48
5	1.417625	71.592902	0.013968	0.705405	50.501994	0.019801	60
6	1.520106	89.160944	0.011216	0.657849	58.654444	0.017049	72
7	1.629994	107.998981	0.009259	0.613499	66.257285	0.015093	84
8	1.747826	128.198821	0.007800	0.572139	73.347569	0.013634	96
9	1.874177	149.858909	0.006673	0.533568	79.959850	0.012506	108
10	2.009661	173.084807	0.005778	0.497596	86.126354	0.011611	120
44	3 15/0/0	197.989707	0.005051	0.464050	91.877134	0.010884	132
11	2.154940		0.004450	0.432765	97.240216	0.010284	144
12	2.310721	224.694985					156
13	2.477763	253.330789	0.003947	0.403590	102.241738	0.009781	
14 15	2.656881 2.848947	284.036677 316.962297	0.003521	0.376381 0.351007	106.906074 111.255958	0.009354 0.008988	168 180
	7.05/007	752 2/0442	0.000070	0.7377/7	115.312587	0.008672	192
16	3.054897	352.268112	0.002839	0.327343		0.008397	204
17	3.275736	390.126188	0.002563	0.305275	119.095732		216
18	3.512539	430.721027	0.002322	0.284694	122.623831	0.008155	
19 20	3.766461 4.038739	474.2504 <b>7</b> 0 520.9 <b>26660</b>	0.002109	0.265501 0.247602	125.914077 128.982506	0.007942 0.007753	228 240
	4.030/37						
21	4.330700	570.977075	0.001751	0.230910	131.844073	0.007585 0.007434	252 264
22	4.643766	624.645640	0.001601	0.215342	134.512723		
23	4.979464	682.193909	0.001466	0.200825	137.001461	0.007299	276
24 25	5.339430 5.725418	743.902347 810.071693	0.001344 0.001234	0.187286 0.174660	139.322418 141.486903	0.007178 0.007068	288 300
	3.723410						
26	6.139309	881.024427	0.001135	0.162885	143.505467	0.006968	312
27	6.583120	957.106339	0.001045	0.151904	145.387946	0.006878	324
28	7.059015	1038.688219	0.000963	0.141663	147.143515	0.006796	336
29	7.569311	1126.167659	0.000888	0.132112	148.780729	0.006721	348
30	8.116497	1219.970996	0.000820	0.123206	150.307568	0.006653	360
31	8.703240	1320.555383	0.000757			0.006591	372
32	9.332398	1428.411024	0.000700	0.107154	153.059383	0.006533	384
33	10.007037	1544.063557	0.000648	0.099930	154.297770	0.006481	396
34	10.730447	1668.076622	0.000599	0.093193	155.452669	0.006433	408
35	11.506152	1801.054601	0.000555	0.086910	156.529709	0.006389	420
36	12.337932	1943.645569	0.000514	0.081051	157.534139	0.006348	432
37	13.229843	2096.544450	0.000477	0.075587	158.470853	0.006310	444
38	14.186229	2260.496403	0.000442	0.070491	159.344418	0.006276	456
39	15.211753	2436.300456	0.000410	0.065739	160.159090	0.006244	468
40	16.311411	2624.813398	0.000381	0.061307	160.918839	0.006214	480

MONTHLY COMPOUND INTEREST TABLES

0.6667% MONTHLY EFFECTIVE INTEREST RATE

	1 AMOUNT OF \$1 AT COMPOUND	2 ACCUMULATION OF \$1	3 SINKING FUND	PRESENT VALUE REVERSION	5 PRESENT VALUE ORD. ANNUITY	6 INSTALLMENT TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
MONTHS							MONT
1	1.006667	1.000000	1.000000	0.993377	0.993377	1.006667	MONT 1
2	1.013378	2.006667	0.498339	0.986799	1.980176	0.505006	ż
3	1.020134	3.020044	0.331121	0.980264	2.960440	0.337788	3
4	1.026935	4.040178	0.247514	0.973772	3.934212		4
5	1.033781	5.067113	0.197351	0.967323	4.901535	0.254181 0.204018	5
6	1.040673	6.100893	0.163910	0.960917	5.862452	0.170577	6
7	1.047610	7.141566	0.140025	0.954553	6.817005	0.146692	7
8	1.054595	8.189176	0.122112	0.948232	7.765237	0.128779	8
9	1.061625	9.243771	0.108181	0.941952	8.707189	0.114848	9
10	1.068703	10.305396	0.097037	0.935714	9.642903	0.103703	10
11	1.075827	11.374099	0.087919	0,929517	10.572420	0.094586	11
12	1.083000	12.449926	0.080322	0.923361	11.495782	0.086988	12
YEARS							MON1
1	1.083000	12.449926	0.080322	0.923361	11.495782	0.086988	12
2	1.172888	25.933190	0.038561	0.852596	22.110544	0.045227	24
3	1.270237	40.535558	0.024670	0.787255	31.911806	0.031336	36
4	1.375666	56.349915	0.017746	0.726921	40.961913	0.024413	48
5	1.489846	73.476856	0.013610	0.671210	49.318433	0.020276	60
6	1.613502	92.025325	0.010867	0.619770	57.034522	0.017533	72
7	1.747422	112.113308	0.008920	0.572272	64.159261	0.015586	84
, 8	1.892457	133.868583	0.007470	0.528414	70.737970	0.014137	96
9	2.049530	157.429535	0.006352	0.487917	76.812497	0.013019	108
10	2.219640	182.946035	0.005466	0.450523	82.421481	0.012133	120
44	2,403869	210 590702	0.004749	0.415996	87.600600	0.011415	137
11		210.580392			92.382800	0.010825	144
12	2.603389	240.508387	0.004158	0.384115		0.010331	156
13	2.819469	272.920390	0.003664	0.354677	96.798498		168
14 15	3.053484 3.306921	308.022574 346.038222	0.003247 0.002890	0.327495 0.302396	100.875784 104.640592	0.009913 0.009557	180
4.4	7 59170/	797 2001/0	0.002597	0.270224	108.116871	0.009249	197
16	3.581394	387.209149 431.797244	0.002583	0.279221 0.257822	111.326733	0.009249	204
17	3.878648					0.008750	210
18	4.200574	480.086128	0.002083	0.238063	114.290596		
19 20	4.549220 4.926803	532.382966 589.020416	0.001878 0.001698	0.219818 0.202971	117.027313 119.554292	0.008545 0.008364	228 248
		/50 3503//	0.004578	0 107/1/	121 007404	0.008204	252
21	5.335725	650.358746	0.001538	0.187416	121.887606	0.008062	264
22	5.778588	716.788127	0.001395	0.173053	124.042099		270
23	6.258207	788.731114	0.001268	0.159790	126.031475	0.007935	288
24 25	6.777636 7.340176	866.645333 951.026395	0.001154 0.001051	0.147544 0.136237	127.868388 129.564523	0.007821 0.007718	30
				0 435704	171 170449	0.007626	31
26	7.949407	1042.411042	0.000959	0.125796	131.130668	0.007543	32
27	8.609204	1141.380571	0.000876	0.116155	132.576786	0.007468	336
28	9.323763	1248.564521	0.000801	0.107253	133.912076	0.007399	348
29 30	10.097631 10.935730	1364.644687 1490.359449	0.000733 0.000671	0.099033 0.091443	135.145031 136.283494	0.007338	360
						0.007394	77
31 32	11.843390 12.826385	1626.508474 1773.957801	0.000615	0.084435 0.077964	137.334707 138.305357	0.007281 0.007230	377 384
33	13.890969	1933.645350	0.000517	0.071989	139.201617	0.007184	390
34	15.043913	2106.586886	0.000475	0.066472	140.029190	0.007141	408
35	16.292550	2293.882485	0.000475	0.061378	140.793338	0.007103	420
36	17.644824	2496.723526	0.000401	0.056674	141.498923	0.007067	43
37	19.109335	2716.400273	0.000368	0.052330	142.150433	0.007035	44
38	20.695401	2954.310082	0.000338	0.048320	142.752013	0.007005	456
39	22.413109	3211.966288	0.000338	0.044617	143.307488	0.006978	46
40	24.273386	3491.007831	0.000311	0.041197	143.820392	0.006953	48

9.00% ANNUAL INTEREST RATE

0.7500% MONTHLY EFFECTIVE INTEREST RATE

	1 AMOUNT OF \$1	2 ACCUMULATION	3 SINKING	DESENT VALUE	5 PRESENT VALUE	6 INSTALLMENT		
	AT COMPOUND	OF \$1	FUND	REVERSION		TO		
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1		
MONTHS							MONT	
1	1.007500	1.000000	1.000000	0.992556	0.992556	1.007500	1	
2	1.015056	2.007500	0.498132	0.985167	1.977723	0.505632	2	
3	1.022669	3.022556	0.330846	0.977833	2.955556	0.338346	3	
4	1.030339	4.045225	0.247205	0.970554	3.926110	0.254705	4	
5	1.038067	5.075565	0.197022	0.963329	4.889440	0.204522	5	
6	1.045852	6.113631	0.163569	0.956158	5.845598	0.171069	6	
7	1.053696	7.159484	0.139675	0.949040	6.794638	0.147175	7	
8	1.061599	8.213180	0.121756	0.941975	7.736613	0.129256	8	
9	1.069561	9.274779	0.107819	0.934963	8.671576	0.115319	9	
10	1.077583	10.344339	0.096671	0.928003	9.599580	0.104171	10	
11	1.085664	11.421922	0.087551	0.921095	10.520675	0.095051	11	
12	1.093807	12.507586	0.079951	0.914238	11.434913	0.087451	12	
YEARS							MONT	
1	1.093807	12.507586	0.079951	0.914238	11.434913	0.087451	12	
2	1.196414	26.188471	0.038185	0.835831	21.889146	0.045685	24	
3	1.308645	41.152716	0.024300	0.764149	31.446805	0.031800	36	
4	1.431405	57.520711	0.017385	0.698614	40.184782	0.024885	48	
5	1.565681	75.424137	0.013258	0.638700	48.173374	0.020758	60	
6	1.712553	95.007028	0.010526	0.583924	55.476849	0.018026	72	
7	1.873202	116.426928	0.008589	0.533845	62.153965	0.016089	84	
8	2.048921	139.856164	0.007150	0.488062	68.258439	0.014650	96	
9	2.241124	165.483223	0.006043	0.446205	73.839382	0.013543	108	
10	2.451357	193.514277	0.005168	0.407937	78.941693	0.012668	120	
11	2.681311	224.174837	0.004461	0.372952	83.606420	0.011961	132	
12	2.932837	257.711570	0.003880	0.340967	87.871092	0.011380	144	
13	3.207957	294.394279	0.003397	0.311725	91.770018	0.010897	156	
14	3.508886	334.518079	0.002989	0.284991	95.334564	0.010489	168	
15	3.838043	378.405769	0.002643	0.260549	98.593409	0.010143	180	
16	4.198078	426.410427	0.002345	0.238204	101.572769	0.009845	192	
17	4.591887	478.918252	0.002088	0.217775	104.296613	0.009588	204	
18	5.022638	536.351674	0.001864	0.199099	106.786856	0.009364	216	
19	5.493796	599.172747	0.001669	0.182024	109.063531	0.009169	228	
20	6.009152	667.886870	0.001497	0.166413	111.144954	0.008997	240	
21	6.572851	743.046852	0.001346	0.152141	113.047870	0.008846	252	
22	7.189430	825.257358	0.001212	0.139093	114.787589	0.008712	264	
23	7.863848	915.179777	0.001212	0.127164	116.378106	0.008593	276	
24	8.601532	1013.537539	0.000987	0.116258	117.832218	0.008487	288	
25	9.408415	1121.121937	0.000892	0.106288	119.161622	0.008392	300	
26	10.290989	1238.798495	0.000807	0.097172	120.377014	0.008307	312	
27	11.256354	1367.513924	0.000331	0.088839	121.488172	0.008231	324	
28	12.312278	1508.303750	0.000663	0.081220	122.504035	0.008163	336	
29	13.467255	1662.300631	0.000602	0.074254	123.432776	0.008102	348	
30	14.730576	1830.743483	0.000546	0.067886	124.281866	0.008046	360	
31	16.112406	2014.987436	0.000496	0.062064	125.058136	0.007996	372	
			0.000498	0.056741	125.767832	0.007951	384	
32	17.623861	2216.514743	0.000451	0.051875	126.416664	0.007910	396	
33	19.277100	2436.946701		0.047426	127.009850	0.007970	408	
34 35	21.085425 23.063384	2678.056697 2941.784474	0.000373 0.000340	0.047428	127.552164	0.007840	420	
				0.039640	128.047967	0.007810	432	
36	25.226888	3230.251735	0.000310	0.036241	128.501250	0.007782	444	
37	27.593344	3545.779215	0.000282		128.915659	0.007757	456	
38	30.181790	3890.905350	0.000257	0.033133	129.294526	0.007734	468	
39 40	33.013050	4268.406696	0.000234	0.030291	129.640902	0.007714	480	
44.1	36.109902	4681.320273	0.000214	0.027693	167.040706	0.001114	700	

MONTHLY COMPOUND INTEREST TABLES

0.8333% MONTHLY EFFECTIVE INTEREST RATE

	1	2	3	4	5	6	
	AMOUNT OF \$1	ACCUMULATION	SINKING		PRESENT VALUE	INSTALLMENT	
	AT COMPOUND	OF \$1	FUND	REVERSION	ORD. ANNUITY	TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
MONTHS					***************************************		MONT
1	1.008333	1.000000	1.000000	0.991736	0.991736	1.008333	1
2	1.016736	2.008333	0.497925	0.983539	1.975275	0.506259	ż
3	1.025209	3.025069	0.330571	0.975411	2.950686	0.338904	3
4	1.033752	4.050278	0.246897	0.967350	3.918036		4
5	1.042367	5.084031	0.196694	0.959355	4.877391	0.255230 0.205028	5
,	4 054057	( 40/700	0.4/7000	0.054/07			
6 7	1.051053 1.059812	6.126398 7.177451	0.163228 0.139325	0.951427	5.828817	0.171561	6
8				0.943563	6.772381	0.147659	7
	1.068644	8.237263	0.121400	0.935765	7.708146	0.129733	8
9	1.077549	9.305907	0.107459	0.928032	8.636178	0.115792	9
10	1.086529	10.383456	0.096307	0.920362	9.556540	0.104640	10
11	1.095583	11.469985	0.087184	0.912756	10.469296	0.095517	11
12	1.104713	12.565568	0.079583	0.905212	11.374508	0.087916	12
YEARS							MONT
1	1.104713	12.565568	0.079583	0.905212	11.374508	0.087916	12
ż	1.220391	26.446915	0.037812	0.819410	21.670855	0.046145	24
3	1.348182	41.781821	0.023934	0.741740	30.991236	0.032267	36
4	1.489354	58.722492	0.017029	0.671432	39.428160	0.025363	48
5	1.645309	77.437072	0.012914	0.607789	47.065369	0.021247	60
6	1.817594	98.111314	0.010193	0.550178	53.978665	0.018526	72
7	2.007920	120.950418	0.008268	0.498028	60.236667	0.016601	84
8	2.218176	146.181076	0.006841	0.450821	65.901488	0.015174	96
9	2.450448	174.053713	0.005745	0.408089	71.029355	0.014079	108
10	2.707041	204.844979	0.004882	0.369407	75.671163	0.013215	120
11	2.990504	238.860493	0.004187	0.334392	79.872986	0.012520	132
12	3.303649	276.437876	0.003617	0.302696	83.676528	0.011951	144
13	3.649584	317.950102	0.003145	0.274004	87.119542	0.011478	156
14	4.031743	363.809201	0.002749	0.248032	90.236201	0.011082	168
15	4.453920	414.470346	0.002413	0.224521	93.057439	0.010746	180
16	4.920303	470.436376	0.002126	0.203240	95.611259	0.010459	192
17	5.435523	532.262780	0.002128	0.183975	97.923008	0.010212	204
18							
	6.004693	600.563216	0.001665	0.166536	100.015633	0.009998	216
19	6.633463	676.015601	0.001479	0.150751	101.909902	0.009813	228
20	7.328074	759.368836	0.001317	0.136462	103.624619	0.009650	240
21	8.095419	851.450244	0.001174	0.123527	105.176801	0.009508	252
22	8.943115	953.173779	0.001049	0.111818	106.581856	0.009382	264
23	9.879576	1065.549097	0.000938	0.101219	107.853730	0.009272	276
24	10.914097	1189.691580	0.000841	0.091625	109.005045	0.009174	288
25	12.056945	1326.833403	0.000754	0.082940	110.047230	0.009087	300
26	13.319465	1478.335767	0.000676	0.075078	110.990629	0.009010	312
27	14.714187	1645.702407	0.000678	0.067962	111.844605	0.009010	324
28							
	16.254954 17.957060	1830.594523	0.000546	0.061520	112.617635	0.008880	336
29 30	19.837399	2034.847258 2260.487925	0.000491 0.000442	0.0556 <b>88</b> 0.050410	113.317392 113.950820	0.008825 0.008776	348 360
30	17.03/3/7	2230.401723	0.000442	0.050410	113.730020	0.000770	300
31	21.914634	2509.756117	0.000398	0.045632	114.524207	0.008732	372
32	24.209383	2785.125947	0.000359	0.041306	115.043244	0.008692	384
33	26.744422	3089.330596	0.000324	0.037391	115.513083	0.008657	396
34	29.544912	3425.389447	0.000292	0.033847	115.938387	0.008625	408
35	32.638650	3796.638052	0.000263	0.030639	116.323377	0.008597	420
36	36.056344	4206.761236	0.000238	0.027734	116.671876	0.008571	432
37	39.831914	4659.829677	0.000215	0.025105	116.987340	0.008548	444
38	44.002836	5160.340305	0.000194	0.022726	117.272903	0.008527	456
39	48.610508	5713.260935	0.000175	0.020572	117.531398	0.008508	468
40	53.700663	6324.079581	0.000178	0.018622	117.765391	0.008491	480
	330003	JJE7.017JU1	0.000130	0.010022	111.103371	0.000471	400

11.00% ANNUAL INTEREST RATE

0.9167% MONTHLY EFFECTIVE INTEREST RATE

	1 AMOUNT OF \$1	2 ACCUMULATION	3 Sinking	4 PRESENT VALUE	5 PRESENT VALUE	6 Installment	
	AT COMPOUND INTEREST	OF \$1 PER PERIOD	FUND FACTOR	REVERSION OF \$1	ORD. ANNUITY \$1 PER PERIOD	TO AMORTIZE \$1	
MONTHS							MONTH
1	1.009167	1.000000	1.000000	0.990917	0.990917	1.009167	1
2	1.018417	2.009167	0.497719	0.981916	1.972832	0.506885	2
3	1.027753	3.027584	0.330296	0.972997	2.945829	0.339463	3
4	1.037174	4.055337	0.246589	0.964158	3.909987	0.255755	4
5	1.046681	5.092511	0.196367	0.955401	4.865388	0.205533	5
6	1.056276	6.139192	0.162888	0.946722	5.812110	0.172055	6
7	1.065958	7.195468	0.138976	0.938123	6.750233	0.148143	7
8	1.075730	8.261427	0.121044	0.929602	7.679835	0.130211	8
9	1.085591	9.337156	0.107099	0.921158	8.600992	0.116266	9
10	1.095542	10.422747	0.095944	0.912790	9.513783	0.105111	10
11	1.105584	11.518289	0.086818	0.904499	10.418282	0.095985	11
12	1.115719	12.623873	0.079215	0.896283	11.314565	0.088382	12
YEARS							MONTH
1	1.115719	12.623873	0.079215	0.896283	11.314565	0.088382	12
2	1.244829	26.708566	0.037441	0.803323	21.455619	0.046608	24
3	1.388879	42.423123	0.023572	0.720005	30.544874	0.032739	36
4	1.549598	59.956151	0.016679	0.645329	38.691421	0.025846	48
5	1.728916	79.518080	0.012576	0.578397	45.993034	0.021742	60
6	1.928984	101.343692	0.009867	0.518408	52.537346	0.019034	72
7	2.152204	125.694940	0.007956	0.464640	58.402903	0.017122	84
8	2.401254	152.864085	0.006542	0.416449	63.660103	0.015708	96
9	2.679124	183.177212	0.005459	0.373256	68.372043	0.014626	108
10	2.989150	216.998139	0.004608	0.334543	72.595275	0.013775	120
11	3.335051	254.732784	0.003926	0.299846	76.380487	0.013092	132
12	3.720979	296.834038	0.003369	0.268747	79.773109	0.012536	144
13	4.151566	343.807200	0.002909	0.240873	82.813859	0.012075	156
14	4.631980	396.216042	0.002524	0.215890	85.539231	0.011691	168
15	5.167988	454.689575	0.002199	0.193499	87.981937	0.011366	180
16	5.766021	519.929596	0.001923	0.173430	90.171293	0.011090	192
17	6.433259	592.719117	0.001687	0.155442	92.133576	0.010854	204
18	7.177708	673.931757	0.001484	0.139320	93.892337	0.010650	216
19	8.008304	764.542228	0.001308	0.124870	95.468685	0.010475	228
20	8.935015	865.638038	0.001155	0.111919	96.881539	0.010322	240
21	9.968965	978.432537	0.001022	0.100311	98.147856	0.010189	252
22	11.122562	1104.279485	0.000906	0.089907	99.282835	0.010072	264
23	12.409652	1244.689295	0.000803	0.080582	100.300098	0.009970	276
24	13.845682	1401.347165	0.000714	0.072225	101.211853	0.009880	288
25	15.447889	1576.133301	0.000634	0.064734	102.029044	0.009801	300
26	17.235500	1771.145485	0.000565	0.058020	102.761478	0.009731	312
27	19.229972	1988.724252	0.000503	0.052002	103.417947	0.009670	324
28	21.455242	2231.480981	0.000448	0.046609	104.006328	0.009615	336
29	23.938018	2502.329236	0.000440	0.041775	104.533685	0.009566	348
30	26.708098	2804.519736	0.000357	0.037442	105.006346	0.009523	360
31	29.798728	3141.679369	0.000318	0.033558	105.429984	0.009485	372
32	33.247002	3517.854723	0.000318	0.030078	105.809684	0.009451	384
33	37.094306	3937.560650	0.000254	0.026958	106.150002	0.009421	396
33 34	41.386816	4405.834459	0.000234	0.024162	106.455024	0.009421	408
35	46.176050	4928.296368	0.000227	0.021656	106.728409	0.009394	420
74	E1 E10/80	EE11 24/0/2	0.000484	0.010/10	104 077//0	0.0007/9	/72
36 37	51.519489	5511.216962	0.000181	0.019410	106.973440 107.193057	0.009348 0.009329	432 444
	57.481264 64.132929	6161.592447	0.000162	0.017397			
38		6887.228628	0.000145	0.015593	107.389897	0.009312 0.009297	456 468
39	71.554317	7696.834582	0.000130	0.013975	107.566320		468
40	79.834499	8600.127195	0.000116	0.012526	107.724446	0.009283	480

MONTHLY COMPOUND INTEREST TABLES

1.0000% MONTHLY EFFECTIVE INTEREST RATE

	AMOUNT OF \$1 AT COMPOUND	2 ACCUMULATION OF \$1	3 SINKING FUND	REVERSION	5 PRESENT VALUE ORD. ANNUITY	TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
MONTHS							MONTH
1	1.010000	1.000000	1.000000	0.990099	0.990099	1.010000	1
ż	1.020100	2.010000	0.497512	0.980296	1.970395	0.507512	2
3	1.030301	3.030100	0.330022	0.970590	2.940985		3
4	1.040604	4.060401	0.246281	0.960980		0.340022	
5	1.051010	5.101005	0.196040	0.951466	3.901966 4.853431	0.256281 0.206040	4 5
6	1.061520	6.152015	0.162548	0.0/30/5	E 70E/74	0.4735/0	,
7	1.072135	7.213535		0.942045	5.795476	0.172548	6
8	1.082857	8.285671	0.138628 0.120690	0.932718 0.923483	6.728195	0.148628	7
9					7.651678	0.130690	8
	1.093685	9.368527	0.106740	0.914340	8.566018	0.116740	9
10	1.104622	10.462213	0.095582	0.905287	9.471305	0.105582	10
11	1.115668	11.566835	0.086454	0.896324	10.367628	0.096454	11
12	1.126825	12.682503	0.078849	0.887449	11.255077	0.088849	12
YEARS							MONTH
1	1.126825	12.682503	0.078849	0.887449	11.255077	0.088849	12
2	1.269735	26.973465	0.037073	0.787566	21.243387	0.047073	24
3	1.430769	43.076878	0.023214	0.698925	30.107505	0.033214	36
4	1.612226	61.222608	0.016334	0.620260	37.973959	0.026334	48
5	1.816697	81.669670	0.012244	0.550450	44.955038	0.022244	60
6	2.047099	104.709931	0.009550	0.488496	51.150391	0.019550	72
7	2.306723	130.672274	0.007653	0.433515	56.648453	0.017653	84
8	2.599273	159.927293	0.006253	0.384723	61.527703	0.016253	96
9	2.928926	192.892579	0.005184	0.341422	65.857790	0.015184	108
10	3.300387	230.038689	0.004347	0.302995	69.700522	0.014347	120
11	7 719050	271 90595/	0.007478	0.2/8802	77 110753	0.047/70	473
11 12	3.718959	271.895856	0.003678	0.268892	73.110752	0.013678	132
	4.190616	319.061559	0.003134	0.238628	76.137157	0.013134	144
13	4.722091	372.209054	0.002687	0.211771	78.822939	0.012687	156
14 15	5.320970 5.995802	432.096982 499.580198	0.002314 0.002002	0.187936 0.166783	81.206434 83.321664	0.012314 0.012002	168 180
4.	·	575 (2427)			05 400004		400
16	6.756220	575.621974	0.001737	0.148012	85.198824	0.011737	192
17	7.613078	661.307751	0.001512	0.131353	86.864707	0.011512	204
18	8.578606	757.860630	0.001320	0.116569	88.343095	0.011320	216
19	9.666588	866.658830	0.001154	0.103449	89.655089	0.011154	228
20	10.892554	989.255365	0.001011	0.091806	90.819416	0.011011	240
21	12.274002	1127.400210	0.000887	0.081473	91.852698	0.010887	252
22	13.830653	1283.065279	0.000779	0.072303	92.769683	0.010779	264
23	15.584726	1458.472574	0.000686	0.064165	93.583461	0.010686	276
24	17.561259	1656.125905	0.000604	0.056944	94.305647	0.010604	288
25	19.788466	1878.846626	0.000532	0.050534	94.946551	0.010532	300
26	22.298139	2129.813909	0.000470	0.044847	95.515321	0.010470	312
27	25.126101	2412.610125	0.000414	0.039799	96.020075	0.010414	324
28	28.312720	2731.271980	0.000366	0.035320	96.468019	0.010366	336
29	31.903481	3090.348134	0.000324	0.031345	96.865546	0.010324	348
30	35.949641	3494.964133	0.000324	0.027817	97.218331	0.010286	360
31	40.508956	3950.895567	0.000253	0.024686	97.531410	0.010253	372
32	45.646505	4464.650520	0.000224	0.021907	97.809252	0.010253	384
33	51.435625	5043.562459	0.000198	0.019442	98.055822	0.010198	396
34	57.958949	5695.894923	0.000176	0.017254	98.274641	0.010176	408
35	65.309595	6430.959471	0.000178	0.015312	98.468831	0.010178	420
74	73 502/84	7250 2/8407	0.000470	0.047500	00 4/44/4	0.040478	/77
36 37	73.592486 82.925855	7259.248603 8192.585529	0.000138 0.000122	0.013588 0.012059	98.641166 98.794103	0.010138 0.010122	432 444
38	93.442929	9244.292939	0.000122	0.012039	98.929828	0.010122	456
39	105.293832	10429.383172	0.000096	0.009497			
40	118.647725	11764.772510			99.050277	0.010096	468 480
40	110.04//23	11/04.//2310	0.000085	0.008428	99.157169	0.010085	400

13.00% ANNUAL INTEREST RATE

1.0833% MONTHLY EFFECTIVE INTEREST RATE

	1 AMOUNT OF \$1	2 ACCUMULATION	3 Sinking		PRESENT VALUE	6 INSTALLMENT	
	AT COMPOUND INTEREST	OF \$1 PER PERIOD	FUND FACTOR	REVERSION OF \$1	ORD. ANNUITY \$1 PER PERIOD	TO AMORTIZE \$1	
MONTHS							MONT
1	1.010833	1.000000	1.000000	0.989283	0.989283	1.010833	1
2	1.021784	2.010833	0.497306	0.978680	1.967963	0.508140	2
3	1.032853	3.032617	0.329748	0.968192	2.936155	0.340581	3
4	1.044043	4.065471	0.245974	0.957815	3.893970	0.256807	4
5	1.055353	5.109513	0.195713	0.947550	4.841520	0.206547	5
6	1.066786	6.164866	0.162210	0.937395	5.778915	0.173043	6
7	1.078343	7.231652	0.138281	0.927349	6.706264	0.149114	7
8	1.090025	8.309995	0.120337	0.917410	7.623674	0.131170	8
9	1.101834	9.400020	0.106383	0.907578	8.531253	0.117216	9
10	1.113770	10.501854	0.095221	0.897851	9.429104	0.106055	10
11	1.125836	11.615624	0.086091	0.888229	10.317333	0.096924	11
12	1.138032	12.741460	0.078484	0.878710	11.196042	0.089317	12
YEARS							MONTH
1	1.138032	12.741460	0.078484	0.878710	11.196042	0.089317	12
2	1.295118	27.241655	0.036708	0.772130	21.034112	0.047542	24
3	1.473886	43.743348	0.022861	0.678478	29.678917	0.033694	36
4	1.677330	62.522811	0.015994	0.596185	37.275190	0.026827	48
5	1.908857	83.894449	0.011920	0.523874	43.950107	0.022753	60
6	2.172341	108.216068	0.009241	0.460333	49.815421	0.020074	72
7	2.472194	135.894861	0.007359	0.404499	54.969328	0.018192	84
8	2.813437	167.394225	0.005974	0.355437	59.498115	0.016807	96
9	3.201783	203.241525	0.004920	0.312326	63.477604	0.015754	108
10	3.643733	244.036917	0.004098	0.274444	66.974419	0.014931	120
11	4.146687	290.463399	0.003443	0.241156	70.047103	0.014276	132
12	4.719064	343.298242	0.002913	0.211906	72.747100	0.013746	144
13	5.370448	403.426010	0.002479	0.186204	75.119613	0.013312	156
14	6.111745	471.853363	0.002119	0.163619	77.204363	0.012953	168
15	6.955364	549.725914	0.001819	0.143774	79.036253	0.012652	180
16	7.915430	638.347406	0.001567	0.126336	80.645952	0.012400	192
17	9.008017	739.201542	0.001353	0.111012	82.060410	0.012186	204
18	10.251416	853.976825	0.001171	0.097548	83.303307	0.012004	216
19	11.666444	984.594826	0.001016	0.085716	84.395453	0.011849	228
20	13.276792	1133.242353	0.000882	0.075319	85.355132	0.011716	240
21	15.109421	1302.408067	0.000768	0.066184	86.198412	0.011601	252
22	17.195012	1494.924144	0.000669	0.058156	86.939409	0.011502	264
23	19.568482	1714.013694	0.000583	0.051103	87.590531	0.011417	276
24	22.269568	1963.344717	0.000509	0.044904	88.162677	0.011343	288
25	25.343491	2247.091520	0.000445	0.039458	88.665428	0.011278	300
26	28.841716	2570.004599	0.000389	0.034672	89.107200	0.011222	312
27	32.822810	2937.490172	0.000340	0.030467	89.495389	0.011174	324
28	37.353424	3355.700690	0.000298	0.026771	89.836495	0.011131	336
29	42.509410	3831.637843	0.000261	0.023524	90.136227	0.011094	348
30	48.377089	4373.269783	0.000229	0.020671	90.399605	0.011062	360
31	55.054699	4989.664524	0.000200	0.018164	90.631038	0.011034	372
32	62.654036	5691.141761	0.000176	0.015961	90.834400	0.011009	384
33	71.302328	6489.445641	0.000154	0.014025	91.013097	0.010987	396
34	81.144365	7397.941387	0.000135	0.012324	91.170119	0.010969	408
35	92.344923	8431.839055	0.000119	0.010829	91.308095	0.010952	420
36	105.091522	9608.448184	0.000104	0.009516	91.429337	0.010937	432
37	119.597566	10947.467591	0.000091	0.008361	91.535873	0.010925	444
38	136.105914	12471.315170	0.000080	0.007347	91.629487	0.010914	456
39	154.892951	14205.503212	0.000070	0.006456	91.711747	0.010904	468
40	176.273210	16179.065533	0.000062	0.005673	91.784030	0.010895	480

MONTHLY COMPOUND INTEREST TABLES

1.1667% MONTHLY EFFECTIVE INTEREST RATE

		ACCUMULATION	SINKING		PRESENT VALUE		
	AT COMPOUND INTEREST	OF \$1 PER PERIOD	FUND FACTOR	REVERSION OF \$1	ORD. ANNUITY \$1 PER PERIOD		
MONTHS							MONTH
1	1.011667	1.000000	1.000000	0.988468	0.988468	1.011667	1
2	1.023469	2.011667	0.497100	0.977069	1.965537	0.508767	2
3	1.035410	3.035136	0.329475	0.965801	2.931338	0.341141	3
4	1.047490	4.070546	0.245667	0.954663	3.886001	0.257334	4
5	1.059710	5.118036	0.195387	0.943654	4.829655	0.207054	5
6	1.072074	6.177746	0.161871	0.932772	5.762427	0.173538	6
7	1.084581	7.249820	0.137934	0.922015	6.684442	0.149601	7
8	1.097235	8.334401	0.119985	0.911382	7.595824	0.131651	8
9	1.110036	9.431636	0.106026	0.900872	8.496696	0.117693	9
10	1.122986	10.541672	0.094862	0.890483	9.387178	0.106528	10
11	1.136088	11.664658	0.085729	0.880214	10.267392	0.097396	11
12	1.149342	12.800745	0.078120	0.870063	11.137455	0.089787	12
YEARS							MONTH
1	1.149342	12.800745	0.078120		11.137455	0.089787	12
2	1.320987	27.513180	0.036346	0.757010	20.827743	0.048013	24
3	1.518266	44.422800	0.022511	0.658646	29.258904	0.034178	36
4	1.745007	63.857736	0.015660	0.573064	36.594546	0.027326	48
5	2.005610	86.195125	0.011602	0.498601	42.977016	0.023268	60
6	2.305132	111.868425	0.008939	0.433815	48.530168	0.020606	72
7	2.649385	141.375828	0.007073	0.377446	53.361760	0.018740	84
8	3.045049	175.289927	0.005705	0.328402	57.565549	0.017372	96
9	3.499803	214.268826	0.004667	0.285730	61.223111	0.016334	108
10	4.022471	259.068912	0.003860	0.248603	64.405420	0.015527	120
11	4.623195	310.559534	0.003220	0.216301	67.174230	0.014887	132
12	5.313632	369.739871	0.002705	0.188195	69.583269	0.014371	144
13	6.107180	437. <i>7</i> 58319	0.002284	0.163742	71.679284	0.013951	156
14	7.019239	515.934780	0.001938	0.142466	73.502950	0.013605	168
15	8.067507	605.786272	0.001651	0.123954	75.089654	0.013317	180
16	9.272324	709.056369	0.001410	0.107848	76.470187	0.013077	192
17	10.657072	827.749031	0.001208	0.093834	<i>7</i> 7.671337	0.012875	204
18	12.248621	964.167496	0.001037	0.081642	78.716413	0.012704	216
19	14.077855	1120.958972	0.000892	0.071034	79.625696	0.012559	228
20	16.180270	1301.166005	0.000769	0.061804	80.416829	0.012435	240
21	18.596664	1508.285522	0.000663	0.053773	81.105164	0.012330	252
22	21.373928	1746.336688	0.000573	0.046786	81.704060	0.012239	264
23	24.565954	2019.938898	0.000495	0.040707	82.225136	0.012162	276
24	28.234683	2334.401417	0.000428	0.035417	82.678506	0.012095	288
25	32.451308	2695.826407	0.000371	0.030815	83.072966	0.012038	300
26	37.297652	3111.227338	0.000321	0.026811	83.416171	0.011988	312
27	42.867759	3588.665088	0.000279	0.023328	83.714781	0.011945	324
28	49.269718	4137.404359	0.000242	0.020296	83.974591	0.011908	336
29	56.627757	4768.093467	0.000210	0.017659	84.200641	0.011876	348
30	65.084661	5492.970967	0.000182	0.015365	84.397320	0.011849	360
31	74.804537	6326.103143	0.000158	0.013368	84.568442	0.011825	372
32	85.975998	7283.656968	0.000137	0.011631	84.717330	0.011804	384
33	98.815828	8384.213825	0.000119	0.010120	84.846871	0.011786	396
34	113.573184	9649.130077	0.000104	0.008805	84.959580	0.011770	408
35	130.534434	11102.951488	0.000090	0.007661	85.057645	0.011757	420
36	150.028711	12773.889538	0.000078	0.006665	85.142966	0.011745	432
37	172.434303	14694.368868	0.000068	0.005799	85.217202	0.011735	444
38	198.185992	16901.656478	0.000059	0.005046	85.281792	0.011726	456
39	227.783490	19438.584899	0.000051	0.004390	85.337989	0.011718	468
40	261.801139	22354.383358	0.000045	0.003820	85.386883	0.011711	480

15.00% ANNUAL INTEREST RATE

#### 1.2500% MONTHLY EFFECTIVE INTEREST RATE

1 2 UNT OF \$1 ACCUMULATION COMPOUND OF \$1 NTEREST PER PERIOD	3 I SINKING FUND FACTOR	PRESENT VALUE REVERSION OF \$1	5 PRESENT VALUE ORD. ANNUITY \$1 PER PERIOD	6 INSTALLMENT TO AMORTIZE \$1	
					MONT
1.012500 1.000000	1,000000	0.987654	0.987654	1.012500	701
1.025156 2.012500	0.496894	0.975461	1.963115	0.509394	ž
1.037971 3.037656	0.329201	0.963418	2.926534		3
1.050945 4.075627	0.245361	0.951524		0.341701	4
1.064082 5.126572	0.195062	0.939777	3.878058 4.817835	0.257861 0.207562	5
1.077383 6.190654	0.161534	0.928175	5.746010	0.174034	
1.090850 7.268038	0.137589	0.916716	6.662726	0.150089	7
1.104486 8.358888	0.119633	0.905398	7.568124	0.132133	ė
1.118292 9.463374	0.105671	0.894221	8.462345	0.118171	Š
1.132271 10.581666	0.094503	0.883181	9.345526	0.107003	10
1.146424 11.713937	0.085368	0.872277	10.217803	0.097868	11
1.160755 12.860361	0.077758	0.861509	11.079312	0.090258	12
•••••				• • • • • • • • • • • • • • • • • • • •	MONT
1.160755 12.860361	0.077758	0.861509	11.079312	0.090258	12
1.347351 27.788084	0.035987	0.742197	20.624235	0.048487	24
1.563944 45.115505	0.022165	0.639409	28.847267	0.034665	36
1.815355 65.228388	0.015331	0.550856	35.931481	0.027831	48
2.107181 88.574508	0.011290	0.474568	42.034592	0.023790	60
2.445920 115.673621	0.008645	0.408844	47.292474	0.021145	72
2.839113 147,129040	0.006797	0.352223	51.822185	0.019297	84
3.295513 183.641059	0.005445	0.303443	55.724570	0.017945	96
3.825282 226.022551	0.004424	0.261419	59.086509	0.016924	108
4.440213 275.217058	0.003633	0.225214	61.982847	0.016133	120
5.153998 332.319805	0.007000	0.40/03/	4/ /700/0	0.045500	47*
	0.003009	0.194024	64.478068	0.015509	132
5.982526 398.602077	0.002509	0.167153	66.627722	0.015009	144
6.944244 475.539523	0.002103	0.144004	68.479668	0.014603	156
8.060563 564.845011 9.356334 668.506759	0.001770 0.001496	0.124061 0.106879	70.075134 71.449643	0.014270 0.013996	168 180
0.040400 700.070407					
0.860408 788.832603	0.001268	0.092078	72.633794	0.013768	192
2.606267 928.501369	0.001077	0.079326	73.653950	0.013577	204
4.632781 1090.622520	0.000917	0.068340	74.532823	0.013417	216
6.985067 1278.805378	0.000782	0.058875	75.289980	0.013282	228
9.715494 1497.239481	0.000668	0.050722	75.942278	0.013168	240
2.884848 1750.787854	0.000571	0.043697	76.504237	0.013071	252
6.563691 2045.095272	0.000489	0.037645	76.988370	0.012989	264
0.833924 2386.713938	0.000419	0.032432	77.405455	0.012919	276
5.790617 2783.249347	0.000359	0.027940	77.764777	0.012859	288
1.544120 3243.529615	0.000308	0.024071	78.074336	0.012808	300
8.222525 3777.802015	0.000265	0.020737	78.341024	0.012765	312
5.974514 4397.961118	0.000227	0.017865	78.570778	0.012727	324
4.972670 5117.813598	0.000195	0.015391	78.768713	0.012695	336
5.417320 5953.385616	0.000168	0.013260	78.939236	0.012668	348
7.540995 6923.279611	0.000144	0.011423	79.086142	0.012644	360
1.613606 8049.088447	0.000124	0.009841	79.212704	0.012624	372
7.948452 9355.876140	0.000107	0.008478	79.321738	0.012607	384
5.909198 10872,735858	0.000092	0.007304	79.415671	0.012592	396
3.917970 12633.437629	0.000079	0.006293	79.496596	0.012579	408
4.464752 14677.180163	0.000068	0.005421	79.566313	0.012568	420
1.118294 17049.463544	0.000059	0.004670	79.626375	0.012559	432
					444
					456
					468
					480
3.492509 22999.4 6.868983 26709.5	400699 518627	600699 0.000043 518627 0.000037	600699 0.000043 0.003466 518627 0.000037 0.002986	600699	400699         0.000043         0.003466         79.722696         0.012543           518627         0.000037         0.002986         79.761101         0.012537

16.00% ANNUAL INTEREST RATE

1.3333% MONTHLY EFFECTIVE INTEREST RATE

	AMOUNT OF \$1 AT COMPOUND INTEREST	2 ACCUMULATION OF \$1 PER PERIOD	SINKING FUND	4 PRESENT VALUE REVERSION OF \$1		TO	
MONTHS			•••••	• • • • • • • • • • • • • • • • • • • •			MONTHS
1	1.013333	1.000000	1.000000	0.986842	0.986842	1.013333	1
2	1.026844	2.013333	0.496689		1.960699	0.510022	2
3	1.040536	3.040178	0.328928	0.961043	2.921743	0.342261	3
4	1.054410	4.080713	0.245055	0.948398			4
5	1.068468	5.135123	0.194737	0.935919	3.870141 4.806060	0.258389 0.208071	5
6	1.082715	6.203591	0.161197	0.923604	5.729665	0.174530	6
7	1.097151	7.286306	0.137244	0.911452	6.641116	0.150577	7
8	1.111779	8.383457	0.119283	0.899459	7.540575	0.132616	8
9	1.126603	9.495236	0.105316	0.887624		0.118649	9
10	1.141625	10.621839	0.094146		8.428199 9.304144	0.116649	
11	1 1549/4			0.94//10	10 140547	0.0007/3	11
11 12	1.156846 1.172271	11.763464 12.920310	0.085009 0.077398	0.864419 0.853045	10.168563 11.021609	0.098342 0.090731	11 12
YEARS	4 4====:	40 00			44 45		MONTHS
1	1.172271	12.920310			11.021609		12
2	1.374219	28.066412	0.035630	0.727686	20.423539	0.048963	24
3	1.610957	45.821745	0.021824	0.620749	28.443811	0.035157	36
4	1.888477	66.635803	0.015007	0.529527	35.285465	0.028340	48
5	2.213807	91.035516	0.010985	0.451711	41.121706	0.024318	60
6	2.595181	119.638587	0.008359	0.385330	46.100283	0.021692	72
7	3.042255	153.169132	0.006529	0.328704	50.347235	0.019862	84
8	3.566347	192.476010	0.005195	0.280399	53.970077	0.018529	96
9	4.180724	238.554316	0.004192	0.239193	57.060524	0.017525	108
10	4.900941	292.570569	0.003418	0.204042	59.696816	0.016751	120
11	5.745230	355.892244	0.002810	0.174057	61.945692	0.016143	132
11				0.148479		0.015658	144
12	6.734965	430.122395	0.002325		63.864085		
13	7.895203	517.140233	0.001934	0.126659	65.500561	0.015267	156
14 15	9.255316 10.849737	619.148703 738.730255	0.001615 0.001354	0.108046 0.092168	66.896549 68.087390	0.014948 0.014687	168 180
16	12.718830	878.912215	0.001138	0.078624	69.103231	0.014471	192
17	14.909912	1043.243434	0.000959	0.067069	69.969789	0.014292	204
18	17.478455	1235.884123	0.000809	0.057213	70.709003	0.014142	216
19	20.489482	1461.711177	0.000684	0.048806	71.339585	0.014017	228
20	24.019222	1726.441638	0.000579	0.041633	71.877501	0.013913	240
21	28.157032	2036.777427	0.000491	0.035515	72.336367	0.013824	252
22	33.007667	2400.575011	0.000417	0.030296	72.727801	0.013750	264
23	38.693924	2827.044294	0.000354	0.025844	73.061711	0.013687	276
24	45.359757	3326.981781	0.000301	0.022046	73.346552	0.013634	288
25	53.173919	3913.043898	0.000256	0.018806	73.589534	0.013589	300
26	62.334232	4600.067404	0.000217	0.016043	73.796809	0.013551	312
27	73.072600	5405.444997	0.000217	0.013685	73.973623	0.013518	324
						0.013491	336
28	85.660875	6349.565632	0.000157	0.011674	74.124454		348
29 30	100.417742 117.716787	7456.330682 8753.759030	0.000134 0.000114	0.009958 0.008495	74.253120 74.362878	0.013467 0.013448	348 360
31 32	137.995952 161.768625	10274.696396 12057.646856	0.000097 0.000083	0.007247 0.006182	74.456506 74.536375	0.013431 0.013416	372 384
33			0.000083	0.005273	74.604507	0.013404	396
	189.636635	14147.747615					408
34 35	222.305489 260.602233	16597.911700 19470.167508	0.000060 0.000051	0.004498 0.003837	74.662626 74.712205	0.013394 0.013385	420
36	305.496388	22837.229116	0.000044	0.003273	74.754498	0.013377	432 444
37	358.124495	26784.337116	0.000037	0.002792	74.790576	0.013371	
38	419.818887	31411.416562	0.000032	0.002382	74.821352	0.013365	456
39	492.141422	36835.606677	0.000027	0.002032	74.847605	0.013360	468
40	576.923018	43194.226353	0.000023	0.001733	74.870000	0.013356	480

17.00% ANNUAL INTEREST RATE

1.4167% MONTHLY EFFECTIVE INTEREST RATE

	1 AMOUNT OF \$1	2 ACCUMULATION	3 Sinking	4 PRESENT VALUE	5 PRESENT VALUE	6 INSTALLMENT	
	AT COMPOUND INTEREST	OF \$1 PER PERIOD	FUND FACTOR	REVERSION OF \$1	ORD. ANNUITY \$1 PER PERIOD	TO AMORTIZE \$1	
						AMORTIZE #1	
MONTHS	1 01/1/7	4 000000	4 000000				MONT
1	1.014167	1.000000	1.000000	0.986031	0.986031	1.014167	1
2	1.028534	2.014167	0.496483	0.972258	1.958289	0.510650	2
3 4	1.043105	3.042701	0.328655	0.958676	2.916965	0.342822	3
5	1.057882 1.072869	4.085806 5.143688	0.244750	0.945285	3.862250	0.258916	4
,	1.072009	3.143000	0.194413	0.932080	4.794330	0.208580	5
6	1.088068	6.216557	0.160861	0.919060	5.713391	0.175027	6
7 8	1.103482	7.304625 8.408107	0.136900	0.906222	6.619613	0.151066	7
9	1.119115 1.134969	9.527222	0.118933	0.893563	7.513176	0.133100	8
10	1.151048	10.662191	0.104962 0.093789	0.881081	8.394257	0.119129	9
10	1.151048	10.002191	0.093769	0.868774	9.263031	0.107956	10
11	1.167354	11.813238	0.084651	0.856638	10.119669	0.098817	11
12	1.183892	12.980593	0.077038	0.844672	10.964341	0.091205	12
YEARS							MONT
1	1.183892	12.980593	0.077038	0.844672	10.964341	0.091205	12
2	1.401600	28.348209	0.035276	0.713471	20.225611	0.049442	24
3	1.659342	46.541802	0.021486	0.602648	28.048345	0.035653	36
4	1.964482	68.081048	0.014688	0.509040	34.655988	0.028855	48
5	2.325733	93.581182	0.010686	0.429972	40.237278	0.024853	60
6	2.753417	123.770579	0.008079	0.363185	44.951636	0.022246	72
7	3.259747	159.511558	0.006269	0.306772	48.933722	0.020436	84
8	3.859188	201.825006	0.004955	0.259122	52.297278	0.019121	96
9	4.568860	251.919548	0.003970	0.218873	55.138379	0.018136	108
10	5.409036	311.226062	0.003213	0.184876	57.538177	0.017380	120
11	6.403713	381.438553	0.002622	0.156159	59.565218	0.016788	132
12	7.581303	464.562540	0.002153	0.131903	61.277403	0.016319	144
13	8.975441	562.972341	0.001776	0.111415	62.723638	0.015943	156
14	10.625951	679.478890	0.001472	0.094109	63.945231	0.015638	168
15	12.579975	817.410030	0.001223	0.079491	64.977077	0.015390	180
16	14.893329	980.705566	0.001020	0.067144	65.848648	0.015186	192
17	17.632089	1174.029800	0.000852	0.056715	66.584839	0.015018	204
18	20.874484	1402.904761	0.000713	0.047905	67.206679	0.014879	216
19	24.713129	1673.867935	0.000597	0.040464	67.731930	0.014764	228
20	29.257669	1994.658995	0.000501	0.034179	68.175595	0.014668	240
21	34.637912	2374.440878	0.000421	0.028870	68.550346	0.014588	252
22	41.007538	2824.061507	0.000354	0.024386	68.866887	0.014521	264
23	48.548485	3356.363651	0.000298	0.020598	69.134261	0.014465	276
24	57.476150	3986.551756	0.000251	0.017399	69.360104	0.014418	288
25	68.045538	4732.626240	0.000211	0.014696	69.550868	0.014378	300
26	80.558550	5615.897651	0.000178	0.012413	69.712000	0.014345	312
27	95.372601	6661.595368	0.000178	0.012413	69.848104	0.014343	324
28	112.910833	7899.588246	0.000130	0.008857	69.963067	0.014293	336
29	133.674202	9365.237774	0.000107	0.007481	70.060174	0.014273	348
30	158.255782	11100.408126	0.000090	0.006319	70.142196	0.014257	360
31	107 757744	1715/ 4/1057	0.00007/	0 005777	70 244/70	0.014243	372
31 32	187.357711 221.811244	13154.661953 15586.676066	0.000076 0.000064	0.005337 0.004508	70.2114 <b>79</b> 70.270000	0.014243	372 384
33	262.600497	18465.917458	0.000054	0.003808	70.319431	0.014221	396
34	310.890557	21874.627526	0.000046	0.003217	70.361184	0.014212	408
35	368.060758	25910.171179	0.000039	0.002717	70.396451	0.014205	420
36	435.744087	30687.817929	0.000033	0.002295	70.426241	0.014199	432
37	515.873821	36344.034396	0.000033	0.001938	70.451403	0.014194	444
38	610.738749	43040.382285	0.000023	0.001637	70.472657	0.014190	456
39	723.048553	50968.133160	0.000020	0.001383	70.490609	0.014186	468
40	856.011201	60353.731845	0.000017	0.001168	70.505773	0.014183	480
. •				5.551.55		7.717100	-50

MONTHLY COMPOUND INTEREST TABLES

1.5000% MONTHLY EFFECTIVE INTEREST RATE

	1 AMOUNT OF \$1 AT COMPOUND INTEREST	2 ACCUMULATION OF \$1 PER PERIOD	3 SINKING FUND FACTOR	PRESENT VALUE REVERSION OF \$1	5 PRESENT VALUE ORD. ANNUITY \$1 PER PERIOD	TO	
MONTHS							MONTHS
1	1.015000	1.000000	1.000000	0.985222	0.985222	1.015000	1
2	1.030225	2.015000	0.496278	0.970662	1.955883	0.511278	2
3	1.045678	3.045225	0.328383	0.956317	2.912200	0.343383	3
4	1.061364	4.090903	0.244445		3.854385	0.259445	4
5	1.077284	5.152267	0.194089	0.928260	4.782645	0.209089	5
6	1.093443	6.229551	0.160525	0.914542	5.697187	0.175525	6
7	1.109845	7.322994	0.136556	0.901027	6.598214	0.151556	7
8	1.126493	8.432839	0.118584	0.887711	7.485925	0.133584	8
9	1.143390	9.559332	0.104610	0.874592	8.360517	0.119610	9
10	1.160541	10.702722	0.093434	0.861667	9.222185	0.108434	10
11	1.177949	11.863262	0.084294	0.848933	10.071118	0.099294	11
12	1.195618	13.041211	0.076680	0.836387	10.907505	0.091680	12
YEARS							MONTHS
1	1.195618	13.041211	0.076680	0.836387	10.907505	0.091680	12
2	1.429503	28.633521	0.034924	0.699544	20.030405	0.049924	24
3	1.709140	47.275969	0.021152	0.585090	27.660684	0.036152	36
4	2.043478	69.565219	0.014375	0.489362	34.042554	0.029375	48
5	2.443220	96.214652	0.010393	0.409296	39.380269	0.025393	60
6	2.921158	128.077197	0.007808	0.342330	43.844667	0.022808	72
7	3.492590	166.172636	0.006018	0.286321	47.578633	0.021018	84
8	4.175804	211.720235	0.004723	0.239475	50.701675	0.019723	96
9	4.992667	266.177771	0.003757	0.200294	53.313749		
10	5.969323	331.288191	0.003019	0.167523	55.498454	0.018757 0.018019	108 120
44	7 477074	/00 475707					
11	7.137031	409.135393	0.002444	0.140114	57.325714	0.017444	132
12	8.533164	502.210922	0.001991	0.117190	58.854011	0.016991	144
13	10.202406	613.493716	0.001630	0.098016	60.132260	0.016630	156
14	12.198182	746.545446	0.001340	0.081979	61.201371	0.016340	168
15	14.584368	905.624513	0.001104	0.068567	62.095562	0.016104	180
16	17.437335	1095.822335	0.000913	0.057348	62.843452	0.015913	192
17	20.848395	1323.226308	0.000756	0.047965	63.468978	0.015756	204
18	24.926719	1595.114630	0.000627	0.040118	63.992160	0.015627	216
19	29.802839	1920.189249	0.000521	0.033554	64.429743	0.015521	228
20	35.632816	2308.854370	0.000433	0.028064	64.795732	0.015433	240
21	42.603242	2773.549452	0.000361	0.023472	65.101841	0.015361	252
22	50.937210	3329.147335	0.000300	0.019632	65.357866	0.015300	264
23	60.901454	3993.430261	0.000250	0.016420	65.572002	0.015250	276
24	72.814885	4787.658998	0.000209	0.013733	65.751103	0.015209	288
25	87.058800	5737.253308	0.000174	0.011486	65.900901	0.015174	300
26	104.089083	6872.605521	0.000146	0.009607	66.026190	0.015146	312
27	124.450799	8230.053258	0.000122	0.008035	66.130980	0.015122	324
28	148.795637	9853.042439	0.000101	0.006721	66.218625	0.015101	336
29	177.902767	11793.517795	0.000085	0.005621	66.291930	0.015085	348
30	212.703781	14113.585393	0.000071	0.004701	66.353242	0.015071	360
31	254.312506	16887.500372	0.000059	0.003932	66.404522	0.015059	372
32	304.060653	20204.043526	0.000039	0.003932	66.447412	0.015039	372 384
33	363.540442	24169.362788					
34	434.655558		0.000041	0.002751	66.483285	0.015041	396
35	519.682084	28910.370554 34578.805589	0.000035 0.000029	0.002301 0.001924	66.513289 66.538383	0.015035 0.015029	40 <b>8</b> 420
7.		/175/ 000504					
36	621.341343	41356.089521	0.000024	0.301609	66.559372	0.015024	432
37	742.887000	49459.133344	0.000020	0.001346	66.576927	0.015020	444
38	888.209197	59147.279782	0.000017	0.001126	66.591609	0.015017	456
39	1061.959056	70730.603711	0.000014	0.000942	66.603890	0.015014	468
40	1269.697544	84579.836287	0.000012	0.000788	66.614161	0.015012	480

19.00% ANNUAL INTEREST RATE

1.5833% MONTHLY EFFECTIVE INTEREST RATE

	4		7	,			
	1 AMOUNT OF \$1 AT COMPOUND	2 ACCUMULATION OF \$1	3 SINKING FUND	PRESENT VALUE REVERSION	PRESENT VALUE	6 INSTALLMENT	
	INTEREST	PER PERIOD	FACTOR	OF \$1	ORD. ANNUITY \$1 PER PERIOD	TO AMORTIZE \$1	
MONTHS				• • • • • • • • • • • • • • • • • • • •			MONTI
1	1.015833	1.000000	1.000000	0.984413	0.984413	1.015833	1
2	1.031917	2.015833	0.496073	0.969070	1.953483	0.511906	2
3	1.048256	3.047751	0.328111	0.953965	2.907449	0.343944	3
4	1.064853	4.096007	0.244140	0.939096	3.846545	0.259974	4
5	1.081714	5.160860	0.193766	0.924459	4.771004	0.209599	5
6	1.098841	6.242574	0.160190	0.910050	5.681054	0.176024	6
7	1.116239	7.341415	0.136214	0.895865	6.576920	0.152047	7
8	1.133913	8.457654	0.118236	0.881902	7.458822	0.134069	8
9	1.151866	9.591566	0.104258	0.868156	8.326978	0.120092	9
10	1.170104	10.743433	0.093080	0.854625	9.181602	0.108913	10
11	1.188631	11.913537	0.083938	0.841304	10.022906	0.099771	11
12	1.207451	13.102168	0.076323	0.828191	10.851097	0.092157	12
YEARS							MONT
1	1.207451	13.102168	0.076323	0.828191	10.851097	0.092157	12
2	1.457938	28.922394	0.034575	0.685900	19.837878	0.050409	24
3	1.760389	48.024542	0.020823	0.568056	27.280649	0.036656	36
4	2.125583	71.089450	0.014067	0.470459	33.444684	0.029900	48
5	2.566537	98.939196	0.010107	0.389630	38.549682	0.025941	60
6	3.098968	132.566399	0.007543	0.322688	42.777596	0.023377	72
7	3.741852	173.169599	0.005775	0.267247	46.279115	0.021608	84
8	4.518103	222.195973	0.004501	0.221332	49.179042	0.020334	96
9	5.455388	281.392918	0.003554	0.183305	51.580735	0.019387	108
10	6.587114	352.870328	0.002834	0.151812	53.569796	0.018667	120
11	7.953617	439.175798	0.002277	0.125729	55.217118	0.018110	132
12	9.603603	543.385424	0.001840	0.104128	56.581415	0.017674	144
13	11.595879	669.213441	0.001494	0.086238	57.711314	0.017328	156
14	14.001456	821.144606	0.001218	0.071421	58.647086	0.017051	168
15	16.906072	1004.594042	0.000995	0.059150	59.422084	0.016829	180
16	20.413254	1226.100247	0.000816	0.048988	60.063930	0.016649	192
17	24.648004	1493.558135	0.000670	0.040571	60.595501	0.016503	204
18	29.761257	1816.500430	0.000551	0.033601	61.035743	0.016384	216
19	35.935259	2206.437425	0.000453	0.027828	61.400348	0.016287	228
20	43.390065	2677.267240	0.000374	0.023047	61.702310	0.016207	240
21	52.391377	3245.771169	0.000308	0.019087	61.952393	0.016141	252
22	63.260020	3932.211806	0.000254	0.015808	62.159509	0.016088	264
23	76.383375	4761.055238	0.000210	0.013092	62.331041	0.016043	276
24	92.229182	5761.843068	0.000174	0.010843	62.473102	0.016007	288
25	111.362218	6970.245332	0.000143	0.008980	62.590755	0.015977	300
26	134.464421	8429.331851	0.000119	0.007437	62.688195	0.015952	312
27	162.359199	10191.107326	0.000098	0.006159	62.768894	0.015931	324
28	196.040777	12318.364881	0.000081	0.005101	62.835728	0.015915	336
29	236.709632	14886.924139	0.000067	0.004225	62.891079	0.015901	348
30	285.815282	17988.333579	0.000056	0.003499	62.936920	0.015889	360
31	345.107947	21733.133503	0.000046	0.002898	62.974886	0.015879	372
32	416.700935	26254.795909	0.000038	0.002400	63.006328	0.015871	384
33	503.145960	31714.481694	0.000032	0.001987	63.032369	0.015865	396
34	607.524092	38306.784745	0.000032	0.001646	63.053935	0.015859	408
35	733.555571	46266.667644	0.000022	0.001363	63.071796	0.015855	420
36	885.732406	558 <b>77.836195</b>	0.000018	0.001129	63.086589	0.015851	432
37	1069.478478	67482.851256	0.000015	0.000935	63.098840	0.015848	444
38	1291.342856	81495.338274	0.000013	0.000774	63.108986	0.015846	456
39	1559.233220	98414.729710	0.000012	0.000641	63.117389	0.015843	468
40	1882.697708	118844.065787	0.0000010	0.000531	63.124348	0.015842	480
70	. 552.577760		0.00000	0.000331	03.127370	0.013042	+00

MONTHLY COMPOUND INTEREST TABLES

1.6667% MONTHLY EFFECTIVE INTEREST RATE

	1	ACCUMULATION	3	4	5	6	
	AMOUNT OF \$1 AT COMPOUND	ACCUMULATION OF \$1	SINKING Fund	PRESENT VALUE REVERSION	PRESENT VALUE ORD. ANNUITY	INSTALLMENT TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD		
ONTHS		• • • • • • • • • • • • • • • • • • • •					MONTHS
1	1.016667	1.000000	1.000000	0.983607	0.983607	1.016667	MONTHS 1
2	1.033611	2.016667	0.495868	0.967482	1.951088		2
3	1.050838	3.050278	0.327839	0.951622	2.902710	0.512534	3
4	1.068352	4.101116	0.243836	0.936021	3.838731	0.344506	4
5	1.086158	5.169468	0.193444	0.920677	4.759408	0.260503 0.210110	5
6	1.104260	6.255625	0.159856	0.905583	5.664991	0.176523	6
7	1.122665	7.359886	0.135872	0.890738	6.555729	0.152538	7
8	1.141376	8.482551	0.117889	0.876136	7.431865	0.134556	8
9	1.160399	9.623926	0.103908	0.861773	8.293637	0.120574	9
10	1.179739	10.784325	0.092727	0.847645	9.141283	0.109394	10
11	1.199401	11.964064	0.083584	0.833749	9.975032	0.100250	11
12	1.219391	13.163465	0.075968	0.820081	10.795113	0.092635	12
YEARS							MONTHS
1	1.219391	13.163465	0.075968	0.820081	10.795113	0.092635	12
ż	1.486915	29.214877	0.034229	0.672534	19.647986	0.050896	24
3	1.813130	48.787826	0.020497	0.551532	26.908062	0.037164	36
4	2.210915	72.654905	0.013764	0.452301	32.861916	0.030430	48
5	2.695970	101.758208	0.009827	0.370924	37.744561	0.026494	60
6	3.287442	137.246517	0.007286	0.304188	41.748727	0.023953	72
7	4.008677	180.520645	0.005540	0.249459	45.032470		84
8	4.888145	233.288730	0.004287	0.204577	47.725406	0.022206	96
9	5.960561	297.633662	0.003360			0.020953	
10	7.268255	376.095300	0.003560	0.167769 0.137585	49.933833 51.744924	0.020027 0.019326	10 <b>8</b> 12 <b>0</b>
4.4	0.042045	/74 770700					
11 12	8.862845	471.770720	0.002120	0.112831	53.230165	0.018786	132
	10.807275	588.436476	0.001699	0.092530	54.448184	0.018366	144
13	13.178294	730.697658	0.001369	0.075882	55.447059	0.018035	156
14 15	16.069495 19.594998	904.169675 1115.699905	0.001106 0.000 <b>89</b> 6	0.062230 0.051033	56.266217 56.937994	0.017773 0.017563	168 180
11	27 0070//						
16	23.893966	1373.637983	0.000728	0.041852	57.488906	0.017395	192
17	29.136090	1688.165376	0.000592	0.034322	57.940698	0.017259	204
18	35.528288	2071.697274	0.000483	0.028147	58.311205	0.017149	216
19	43.322878	2539.372652	0.000394	0.023082	58.615050	0.017060	228
20	52.827531	3109.651838	0.000322	0.018930	58.864229	0.016988	240
21	64.417420	3805.045193	0.000263	0.015524	59.068575	0.016929	252
22	78.550028	4653.001652	0.000215	0.012731	59.236156	0.016882	264
23	95.783203	5686.992197	0.000176	0.010440	59.373585	0.016843	276
24	116.797184	6947.831050	0.000144	0.008562	59.486289	0.016811	288
25	142.421445	8485.286707	0.000118	0.007021	59.578715	0.016785	300
26	173.667440	10360.046428	0.000097	0.005758	59.654512	0.016763	312
27	211.768529	12646.111719	0.000079	0.004722	59.716672	0.016746	324
28	258.228656	15433.719354	0.000065	0.003873	59.767648	0.016731	336
29	314.881721	18832.903252	0.000053	0.003176	59.809452	0.016720	348
30	383.963963	22977.837794	0.000044	0.002604	59.843735	0.016710	360
31	468.202234	28032.134021	0.000036	0.002136	59.871850	0.016702	372
32	570.921630	34195.297782	0.000029	0.001752	59.894907	0.016696	384
33	696.176745	41710.604726	0.000024	0.001436	59.913815	0.016691	396
34	848.911717	50874.703014	0.000020	0.001178	59.929321	0.016686	408
35	1035.155379	62049.322767	0.000016	0.000966	59.942038	0.016683	420
36	1262.259241	75675.554472	0.000013	0.000792	59.952466	0.016680	432
37	1539.187666	92291.259933	0.000011	0.000792	59.961018	0.016678	444
38		112552.303043	0.0000011	0.000533			456
39		137258.438381		0.00033	59.968032 59.973784	0.016676	
40			0.000007			0.016674	468
40	6170.141773	167384.879555	0.000006	0.000358	59.978500	0.016673	480

# APPENDIX

# Annual Compound Interest Tables

	1 AMOUNT OF \$1 AT COMPOUND INTEREST	2 ACCUMULATION OF \$1 PER PERIOD	3 SINKING FUND FACTOR	4 PRESENT VALUE REVERSION OF \$1	5 PRESENT VALUE ORD. ANNUITY \$1 PER PERIOD	6 INSTALLMENT TO AMORTIZE \$1	
YEARS							YEAR
1	1.060000	1.000000	1.000000	0.943396	0.943396	1.060000	1
2	1.123600	2.060000	0.485437	0.889996	1.833393	0.545437	2
3	1.191016	3.183600	0.314110	0.839619	2.673012	0.374110	3
4	1.262477	4.374616	0.228591	0.792094	3.465106	0.288591	4
5	1.338226	5.637093	0.177396	0.747258	4.212364	0.237396	5
6	1.418519	6.975319	0.143363	0.704961	4.917324	0.203363	6
7	1.503630	8.393838	0.119135	0.665057	5.582381	0.179135	7
8	1.593848	9.897468	0.101036	0.627412	6.209794	0.161036	8
9	1.689479	11.491316	0.087022	0.591898	6.801692	0.147022	9
10	1.790848	13.180795	0.075868	0.558395	7.360087	0.135868	10
11	1.898299	14.971643	0.066793	0.526788	7.886875	0.126793	11
12	2.012196	16.869941	0.059277	0.496969	8.383844	0.119277	12
13	2.132928	18.882138	0.052960	0.468839	8.852683	0.112960	13
14	2.260904	21.015066	0.047585	0.442301	9.294984	0.107585	14
15	2.396558	23.275970	0.042963	0.417265	9.712249	0.102963	15
16	2.540352	25.672528	0.038952	0.393646	10.105895	0.098952	16
17	2.692773	28.212880	0.035445	0.371364	10.477260	0.095445	17
18	2.854339	30.905653	0.032357	0.350344	10.827603	0.092357	18
19	3.025600	33.759992	0.029621	0.330513	11.158116	0.089621	19
20	3.207135	36.785591	0.027185	0.311805	11.469921	0.087185	20
21	3.399564	39.992727	0.025005	0.294155	11.764077	0.085005	21
22	3.603537	43.392290	0.023046	0.277505	12.041582	0.083046	22
23	3.819750	46.995828	0.021278	0.261797	12.303379	0.081278	23
24	4.048935	50.815577	0.019679	0.246979	12.550358	0.079679	24
25	4.291871	54.864512	0.018227	0.232999	12.783356	0.078227	25
26	4.549383	59.156383	0.016904	0.219810	13.003166	0.076904	26
27	4.822346	63.705766	0.015697	0.207368	13.210534	0.075697	27
28	5.111687	68.528112	0.014593	0.195630	13.406164	0.074593	28
							29
29	5.418388	73.639798	0.013580	0.184557	13.590721	0.073580	
30	5.743491	79.058186	0.012649	0.174110	13.764831	0.072649	30
31	6.088101	84.801677	0.011792	0.164255	13.929086	0.071792	31
32	6.453387	90.889778	0.011002	0.154957	14.084043	0.071002	32
33	6.840590	97.343165	0.010273	0.146186	14.230230	0.070273	33
34	7.251025	104.183755	0.009598	0.137912	14.368141	0.069598	34
35	7.686087	111.434780	0.008974	0.130105	14.498246	0.068974	35
36	8.147252	119.120867	0.008395	0.122741	14.620987	0.068395	36
37	8.636087	127.268119	0.007857	0.115793	14.736780	0.067857	37
38	9.154252	135.904206	0.007358	0.109239	14.846019	0.067358	38
39	9.703507	145.058458	0.006894	0.103056	14.949075	0.066894	39
40	10.285718	154.761966	0.006462	0.097222	15.046297	0.066462	40
41	10.902861	165.047684	0.006059	0.091719	15.138016	0.066059	41
42	11.557033	175.950545	0.005683	0.086527	15.224543	0.065683	42
43	12.250455	187.507577	0.005333	0.081630	15.306173	0.065333	43
44	12.985482	199.758032	0.005006	0.077009	15.383182	0.065006	44
45	13.764611	212.743514	0.004700	0.072650	15.455832	0.064700	45
46	14.590487	226.508125	0.004415	0.068538	15.524370	0.064415	46
47	15.465917	241.098612	0.004148	0.064658	15.589028	0.064148	47
48				0.060998	15.650027	0.063898	48
	16.393872	256.564529	0.003898				49
49	17.377504	272.958401	0.003664	0.057546	15.707572	0.063664	50
50	18.420154	290.335905	0.003444	0.054288	15.761861	0.063444	20

ANNUAL COMPOUND INTEREST TABLES

	AMOUNT OF \$1 AT COMPOUND INTEREST	2 ACCUMULATION OF \$1 PER PERIOD	3 SINKING FUND FACTOR	4 PRESENT VALUE REVERSION OF \$1	5 PRESENT VALUE ORD. ANNUITY \$1 PER PERIOD	6 INSTALLMENT TO AMORTIZE \$1	
YEARS							YEARS
1	1.070000	1.000000	1.000000	0.934579	0.934579	1.070000	1
2	1.144900	2.070000	0.483092	0.873439	1.808018	0.553092	2
3	1.225043	3.214900	0.311052	0.816298	2.624316	0.381052	3
4	1.310796	4.439943	0.225228	0.762895	3.387211	0.295228	4
5	1.402552	5.750739	0.173891	0.712986	4.100197	0.243891	5
6	1.500730	7.153291	0.139796	0.666342	4.766540	0.209796	6
7	1.605781	8.654021	0.115553	0.622750	5.389289	0.185553	7
8	1.718186	10.259803	0.097468	0.582009	5.971299	0.167468	8
9	1.838459	11.977989	0.083486	0.543934	6.515232	0.153486	9
10	1.967151	13.816448	0.072378	0.508349	7.023582	0.142378	10
11	2.104852	15.783599	0.063357	0.475093	7.498674	0.133357	11
12	2.252192	17.888451	0.055902	0.444012	7.942686	0.125902	12
13	2.409845	20.140643	0.049651	0.414964	8.357651	0.119651	13
14	2.578534	22.550488	0.044345	0.387817	8.745468	0.114345	14
15	2.759032	25.129022	0.039795	0.362446	9.107914	0.109795	15
16	2.952164	27.888054	0.035858	0.338735	9.446649	0.105858	16
17	3.158815	30.840217	0.032425	0.316574	9.763223	0.102425	17
18	3.379932	33.999033	0.029413	0.295864	10.059087	0.099413	18
19	3.616528	37.378965	0.026753	0.276508	10.335595	0.096753	19
20	3.869684	40.995492	0.024393	0.258419	10.594014	0.094393	20
21	4.140562	44.865177	0.022289	0.241513	10.835527	0.092289	21
22	4.430402	49.005739	0.020406	0.225713	11.061240	0.090406	22
23	4.740530	53.436141	0.018714	0.210947	11.272187	0.088714	23
24	5.072367	58.176671	0.017189	0.197147	11.469334	0.087189	24
25	5.427433	63.249038	0.015811	0.184249	11.653583	0.085811	25
26	5.807353	68.676470	0.014561	0.172195	11.825779	0.084561	26
27	6.213868	74.483823	0.013426	0.160930	11.986709	0.083426	27
28	6.648838	80.697691	0.012392	0.150402	12.137111	0.082392	28
29	7.114257	87.346529	0.011449	0.140563	12.277674	0.081449	29
30	7.612255	94.460786	0.010586	0.131367	12.409041	0.080586	30
31	8.145113	102.073041	0.009797	0.122773	12.531814	0.079797	31
32	8.715271	110.218154	0.009073	0.114741	12.646555	0.079073	32
33	9.325340	118.933425	0.008408	0.107235	12.753790	0.078408	33
34	9.978114	128.258765	0.007797	0.100219	12.854009	0.077797	34
35	10.676581	138.236878	0.007234	0.093663	12.947672	0.077234	35
36	11.423942	148.913460	0.006715	0.087535	13.035208	0.076715	36
37	12.223618	160.337402	0.006237	0.081809	13.117017	0.076237	37
38	13.079271	172.561020	0.005795	0.076457	13.193473	0.075795	38
39	13.994820	185.640292	0.005387	0.071455	13.264928	0.075387	39
40	14.974458	199.635112	0.005009	0.066780	13.331709	0.075009	40
41	16.022670	214.609570	0.004660	0.062412	13.394120	0.074660	41
42	17.144257	230.632240	0.004336	0.058329	13.452449	0.074336	42
43	18.344355	247.776496	0.004036	0.054513	13.506962	0.074036	43
44	19.628460	266.120851	0.003758	0.050946	13.557908	0.073758	44
45	21.002452	285.749311	0.003500	0.047613	13.605522	0.073500	45
46	22.472623	306.751763	0.003260	0.044499	13.650020	0.073260	46
47	24.045707	329.224386	0.003037	0.041587	13.691608	0.073037	47
48	25.728907	353.270093	0.002831	0.038867	13.730474	0.072831	48
49	27.529930	378.999000	0.002639	0.036324	13.766799	0.072639	49
50	29.457025	406.528929	0.002460	0.033948	13.800746	0.072460	50 ,

080000 166400 259712 360489 469328 586874 713824 850930 999005 158925	1.000000 2.080000 3.246400 4.506112 5.866601 7.335929	1.000000 0.480769 0.308034 0.221921 0.170456	0.925926 0.857339 0.793832 0.755030	ORD. ANNUITY \$1 PER PERIOD 0.925926 1.783265	AMORTIZE \$1	YEARS
080000 166400 259712 360489 469328 586874 713824 850930 999005 158925	1.000000 2.080000 3.246400 4.506112 5.866601 7.335929	0.480769 0.308034 0.221921	0.925926 0.857339 0.793832	0.925926 1.783265		YEARS
166400 259712 360489 469328 586874 713824 850930 999005 158925	2.080000 3.246400 4.506112 5.866601 7.335929	0.480769 0.308034 0.221921	0.857339 0.793832	1.783265	1.080000	
166400 259712 360489 469328 586874 713824 850930 999005 158925	2.080000 3.246400 4.506112 5.866601 7.335929	0.480769 0.308034 0.221921	0.857339 0.793832	1.783265		1
259712 360489 469328 586874 713824 850930 999005 158925	3.246400 4.506112 5.866601 7.335929	0.308034 0.221921	0.793832		0.560769	2
360489 469328 586874 713824 850930 999005 158925	4.506112 5.866601 7.335929	0.221921		2.577097	0.388034	3
469328 586874 713824 850930 999005 158925	5.866601 7.335929			3.312127	0.301921	4
713824 850930 999005 158925			0.680583	3.992710	0.250456	5
713824 850930 999005 158925		0.136315	0.630170	4.622880	0.216315	6
850930 999005 158925	8.922803	0.112072	0.583490	5.206370	0.192072	7
999005 158925	10.636628	0.094015	0.540269	5.746639	0.174015	8
158925	12.487558	0.080080	0.500249	6.246888	0.160080	9
	14.486562	0.069029	0.463193	6.710081	0.149029	10
331639	16.645487	0.060076	0.428883	7.138964	0.140076	11
			0.397114	7.536078	0.132695	12
518170	18.977126	0.052695				13
719624	21.495297	0.046522	0.367698	7.903776	0.126522	
937194	24.214920	0.041297	0.340461	8.244237	0.121297	14
172169	27.152114	0.036830	0.315242	8.559479	0.116830	15
425943	30.324283	0.032977	0.291890	8.851369	0.112977	16
700018	33.750226	0.029629	0.270269	9.121638	0.109629	17
996019	37.450244	0.026702	0.250249	9.371887	0.106702	18
315701	41.446263	0.024128	0.231712	9.603599	0.104128	19
660957	45.761964	0.021852	0.214548	9.818147	0.101852	20
033834	50.422921	0.019832	0.198656	10.016803	0.099832	21
436540	55.456755	0.018032	0.183941	10.200744	0.098032	22
871464	60.893296	0.016422	0.170315	10.371059	0.096422	23
341181	66.764759	0.014978	0.157699	10.528758	0.094978	24
848475	73.105940	0.013679	0.146018	10.674776	0.093679	25
396353	79.954415	0.012507	0.135202	10.809978	0.092507	26
988061	87.350768	0.011448	0.125187	10.935165	0.091448	27
627106	95.338830	0.010489	0.115914	11.051078	0.090489	28
317275	103.965936	0.009619	0.107328	11.158406	0.089619	29
.062657	113.283211	0.008827	0.099377	11.257783	0.088827	30
.867669	123.345868	0.008107	0.092016	11.349799	0.088107	31
.737083	134.213537	0.007451	0.085200	11.434999	0.087451	32
	145.950620	0.006852	0.078889	11.513888	0.086852	33
.676050			0.073045	11.586934	0.086304	34
.690134 .785344	158.626670 172.316804	0.006304 0.005803	0.067635	11.654568	0.085803	35
.968172	187.102148	0.005345	0.062625	11.717193	0.085345	36
			0.057986	11.775179	0.084924	37
.245626	203.070320	0.004924			0.084539	38
.625276	220.315945	0.004539	0.053690	11.828869		39
. 115298	238.941221	0.004185	0.049713	11.878582	0.084185	39 40
. 724521	259.056519	0.003860	0.046031	11.924613	0.083860	40
.462483	280.781040	0.003561	0.042621	11.967235	0.083561	41
. 339482	304.243523	0.003287	0.039464	12.006699	0.083287	42
.366640	329.583005	0.003034	0.036541	12.043240	0.083034	43
.555972	356.949646	0.002802	0.033834	12.077074	0.082802	44
	386.505617	0.002587	0.031328	12.108402	0.082587	45
.920449	418.426067	0.002390	0.029007	12.137409	0.082390	46
.920449			0.026859	12.164267	0.082208	47
.474085			0.024869	12.189136	0.082040	48
.474085 .232012				12.212163	0.081886	49
.474085						50
. 55	5972 0449 4085 2012 0573	5972 356.949646 0449 386.505617 4085 418.426067 2012 452.900152 0573 490.132164 7419 530.342737	5972       356.949646       0.002802         0449       386.505617       0.002587         4085       418.426067       0.002390         2012       452.900152       0.002208         0573       490.132164       0.002040	5972         356.949646         0.002802         0.033834           0449         386.505617         0.002587         0.031328           4085         418.426067         0.002390         0.029007           2012         452.900152         0.002208         0.026859           0573         490.132164         0.002040         0.024869           7419         530.342737         0.001886         0.023027	5972     356.949646     0.002802     0.033834     12.077074       0449     386.505617     0.002587     0.031328     12.108402       4085     418.426067     0.002390     0.029007     12.137409       2012     452.900152     0.002208     0.026859     12.164267       0573     490.132164     0.002040     0.024869     12.189136       7419     530.342737     0.001886     0.023027     12.212163	5972     356.949646     0.002802     0.033834     12.077074     0.082802       0449     386.505617     0.002587     0.031328     12.108402     0.082587       4085     418.426067     0.002390     0.029007     12.137409     0.082390       2012     452.900152     0.002208     0.026859     12.164267     0.082208       0573     490.132164     0.002040     0.024869     12.189136     0.082040       7419     530.342737     0.001886     0.023027     12.212163     0.081886

ANNUAL COMPOUND INTEREST TABLES

	1 AMOUNT OF \$1	2 ACCUMULATION	3 Sinking	DDESENT VALUE	5 PRESENT VALUE	6 INSTALLMENT	
	AT COMPOUND	OF \$1	FUND	REVERSION		TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	ORD. ANNUITY \$1 PER PERIOD	AMORTIZE \$1	
	INIEKESI			Ur #1	31 PER PERIOD	AMURITZE DI	
YEARS							YEARS
1	1.090000	1.000000	1.000000	0.917431	0.917431	1.090000	1
2	1.188100	2.090000	0.478469	0.841680	1.759111	0.568469	2
3	1.295029	3.278100	0.305055	0.772183	2.531295	0.395055	3
4	1.411582	4.573129	0.218669	0.708425	3.239720	0.308669	4
5	1.538624	5.984711	0.167092	0.649931	3.889651	0.257092	5
-	11330024	31,04,11	01.0.072	01017731	3133737	01231072	•
6	1.677100	7.523335	0.132920	0.596267	4.485919	0.222920	6
7	1.828039	9.200435	0.108691	0.547034	5.032953	0.198691	7
8	1.992563	11.028474	0.090674	0.501866	5.534819	0.180674	8
9	2,171893	13.021036	0.076799	0.460428	5.995247	0.166799	9
10	2.367364	15.192930	0.065820	0.422411	6.417658	0.155820	10
11	2.580426	17.560293	0.056947	0.387533	6.805191	0.146947	11
12	2.812665	20.140720	0.049651	0.355535	7.160725	0.139651	12
13	3.065805	22.953385	0.043567	0.326179	7.486904	0.133567	13
14	3.341727	26.019189	0.038433	0.299246	7.786150	0.128433	14
15	3.642482	29.360916	0.034059	0.274538	8.060688	0.124059	15
47	7 07070/	77 007700	0 070700	0 354970	9 743550	0 120700	4.4
16	3.970306	33.003399	0.030300	0.251870	8.312558	0.120300	16
17	4.327633	36.973705	0.027046	0.231073	8.543631	0.117046	17
18	4.717120	41.301338	0.024212	0.211994	8.755625	0.114212	18
19	5.141661	46.018458	0.021730	0.194490	8.950115	0.111730	19
20	5.604411	51.160120	0.019546	0.178431	9.128546	0.109546	20
21	6.108808	56.764530	0.017617	0.163698	9.292244	0.107617	21
						0.105905	22
22	6.658600	62.873338	0.015905	0.150182	9.442425		23
23	7.257874	69.531939	0.014382	0.137781	9.580207	0.104382	
24	7.911083	76.789813	0.013023	0.126405	9.706612	0.103023	24
25	8.623081	84.700896	0.011806	0.115968	9.822580	0.101806	25
26	9.399158	93.323977	0.010715	0.106393	9.928972	0.100715	26
27	10.245082	102.723135	0.009735	0.097608	10.026580	0.099735	27
28	11.167140	112.968217	0.008852	0.089548	10.116128	0.098852	28
29	12.172182	124.135356	0.008056	0.082155	10.198283	0.098056	29
30	13.267678	136.307539	0.007336	0.075371	10.273654	0.097336	30
31	14.461770	149.575217	0.006686	0.069148	10.342802	0.096686	31
32	15.763329	164.036987	0.006096	0.063438	10.406240	0.096096	32
33	17.182028	179.800315	0.005562	0.058200	10.464441	0.095562	33
34	18.728411	196.982344	0.005077	0.053395	10.517835	0.095077	34
35	20.413968	215.710755	0.004636	0.048986	10.566821	0.094636	35
_,	00 05405-	27/ 42/72	0.00/0==	0.0//6/4	40 (447/7	0.00/375	7.4
36	22.251225	236.124723	0.004235	0.044941	10.611763	0.094235	36
37	24.253835	258.375948	0.003870	0.041231	10.652993	0.093870	37
38	26.436680	282 <b>.629783</b>	0.003538	0.037826	10.690820	0.093538	38
39	28.815982	309.066463	0.003236	0.034703	10.725523	0.093236	39
40	31.409420	337.882445	0.002960	0.031838	10.757360	0.092960	40
41	34.236268	369.291865	0.002708	0.029209	10.786569	0.092708	41
			0.002708	0.026797	10.813366	0.092478	42
42	37.317532	403.528133					43
43	40.676110	440.845665	0.002268	0.024584	10.837950	0.092268	
44	44.336960	481.521775	0.002077	0.022555	10.860505	0.092077	44
45	48.327286	525.858734	0.001902	0.020692	10.881197	0.091902	45
46	52.676742	574.186021	0.001742	0.018984	10.900181	0.091742	46
47	57.417649	626.862762	0.001795	0.017416	10.917597	0.091595	47
48	62.585237	684.280411	0.001461	0.015978	10.933575	0.091461	48
						0.091339	49
49	68.217908 74.35 <i>7</i> 520	746.865648 815.083556	0.001339 0.001227	0.014659 0.013449	10.948234 10.961683	0.091227	50
50							

	AMOUNT OF \$1 AT COMPOUND INTEREST	2 ACCUMULATION OF \$1 PER PERIOD	3 SINKING FUND FACTOR	PRESENT VALUE REVERSION OF \$1	5 PRESENT VALUE ORD. ANNUITY \$1 PER PERIOD	6 INSTALLMENT TO AMORTIZE \$1	
YEARS					•••••		YEARS
1	1.100000	1.000000	1.000000	0.909091	0.909091	1.100000	1
2	1.210000	2.100000	0.476190	0.826446	1.735537	0.576190	ż
3	1.331000	3.310000	0.302115	0.751315	2.486852	0.402115	3
4	1.464100	4.641000	0.215471	0.683013			
5	1.610510	6.105100	0.163797	0.620921	3.169865 3.790787	0.315471 0.263797	4 5
6	1.771561	7.715610	0.129607	0.564474	4.355261	0.229607	6
7	1.948717	9.487171	0.105405	0.513158	4.868419	0.205405	7
8	2.143589	11.435888	0.087444	0.466507	5.334926		8
9	2.357948	13.579477	0.073641			0.187444	
10	2.593742	15.937425	0.062745	0.424098 0.385543	5.759024 6.144567	0.173641 0.162745	9 10
11	2 057447	10 574447	0.057047	0.750/0/			
	2.853117	18.531167	0.053963	0.350494	6.495061	0.153963	11
12	3.138428	21.384284	0.046763	0.318631	6.813692	0.146763	12
13	3.452271	24.522712	0.040779	0.289664	7.103356	0.140779	13
14	3.797498	27.974983	0.035746	0.263331	7.366687	0.135746	14
15	4.177248	31.772482	0.031474	0.239392	7.606080	0.131474	15
16	4.594973	35.949730	0.027817	0.217629	7.823709	0.127817	16
17	5.054470	40.544703	0.024664	0.197845	8.021553	0.124664	17
18	5.559917	45.599173	0.021930	0.179859	8.201412	0.121930	18
19	6.115909	51.159090	0.019547	0.163508	8.364920	0.119547	19
20	6.727500	57.274999	0.017460	0.148644	8.513564	0.117460	20
21	7.400250	64.002499	0.015624	0.135131	8.648694	0.115624	21
22	8.140275	71.402749	0.014005	0.122846	8.771540	0.114005	22
23	8.954302	79.543024	0.012572	0.111678	8.883218	0.112572	23
24	9.849733	88.497327	0.011300	0.101526	8.984744	0.111300	24
25	10.834706	98.347059	0.010168	0.092296	9.077040	0.110168	25
26	11.918177	109.181765	0.009159	0.083905	9.160945	0.109159	26
27	13.109994	121.099942	0.008258	0.076278	9.237223	0.108258	27
28	14.420994	134.209936	0.007451	0.069343	9.306567	0.107451	28
29	15.863093	148,630930	0.006728	0.063039	9.369606	0.106728	29
30	17.449402	164.494023	0.006079	0.057309	9.426914	0.106079	30
31	19.194342	181.943425	0.005496	0.052099	9.479013	0.105496	31
32	21.113777	201.137767	0.004972	0.047362	9.526376	0.104972	32
33	23.225154	222.251544	0.004472	0.043057	9.569432	0.104472	33
34	25.547670	245.476699	0.004074	0.039143	9.608575	0.104074	34
35	28.102437	271.024368	0.003690	0.035584	9.644159	0.103690	34 35
36	30.912681	299.126805	0.003343	0.032349	9.676508	0.103343	36
37	34.003949	330.039486	0.003343	0.032349	9.705917		36 37
37 38	37.404343					0.103030	
		364.043434	0.002747	0.026735	9.732651	0.102747	38
39 40	41.144778 45.259256	401.447778 442.592556	0.002491 0.002259	0.024304 0.022095	9.756956 9.779051	0.102491 0.102259	39 40
41	49.785181						/ 4
41		487.851811	0.002050	0.020086	9.799137	0.102050	41
	54.763699	537.636992	0.001860	0.018260	9.817397	0.101860	42
43	60.240069	592.400692	0.001688	0.016600	9.833998	0.101688	43
44 45	66.264076 72.890484	652.640761 718.904837	0.001532 0.001391	0.015091 0.013719	9.849089 9.862808	0.101532 0.101391	44 45
46	80.179532	791.795321	0.001263	0.012472	9.875280	0.101263	46
47	88.197485	871.974853	0.001147	0.011338	9.886618	0.101147	47
48	97.017234	960.172338	0.001041	0.010307	9.896926	0.101041	48
49	106.718957	1057.189572	0.000946	0.009370	9.906296	0.100946	49
50	117.390853	1163.908529	0.000859	0.008519	9.914814	0.100859	50

11.00% ANNUAL INTEREST RATE

	1	2	3	4	5	6	
	AMOUNT OF \$1	ACCUMULATION	SINKING	PRESENT VALUE	PRESENT VALUE	INSTALLMENT	
	AT COMPOUND	OF \$1	FUND	REVERSION	ORD. ANNUITY	TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
YEARS							YEARS
1	1.110000	1.000000	1.000000	0.900901	0.900901	1.110000	1
2	1.232100	2.110000	0.473934	0.811622	1.712523	0.583934	2
3	1.367631	3.342100	0.299213	0.731191	2.443715	0.409213	3
4	1.518070	4.709731	0.212326	0.658731	3.102446	0.322326	4
5	1.685058	6.227801	0.160570	0.593451	3.695897	0.270570	5
6	1.870415	7.912860	0 124777	0 57/4/1	/ 270570	0.07/777	,
			0.126377	0.534641	4.230538	0.236377	6
7	2.076160	9.783274	0.102215	0.481658	4.712196	0.212215	7
8	2.304538	11.859434	0.084321	0.433926	5.146123	0.194321	8
9	2.558037	14.163972	0.070602	0.390925	5.537048	0.180602	9
10	2.839421	16.722009	0.059801	0.352184	5.889232	0.169801	10
11	3.151757	19.561430	0.051121	0.317283	6.206515	0.161121	11
12	3.498451	22.713187	0.044027	0.285841	6.492356	0.154027	12
13	3.883280	26.211638	0.038151	0.257514	6.749870	0.148151	13
14	4.310441	30.094918	0.033228	0.231995	6.981865	0.143228	14
15	4.784589	34.405359	0.029065	0.209004	7.190870	0.139065	15
16	5.310894	39.189948	0.025517	0.188292	7.379162	0.135517	16
17	5.895093	44.500843	0.022471	0.169633	7.548794	0.132471	17
18	6.543553	50.395936	0.019843	0.152822	7.701617	0.129843	18
19	7.263344	56.939488	0.017563	0.137678	7.839294	0.127563	19
20	8.062312	64.202832	0.015576	0.124034	7.963328	0.125576	20
21	8.949166	72.265144	0.013838	0.111742	8.075070	0.123838	21
22	9.933574	81.214309	0.012313	0.100669	8.175739	0.122313	22
23	11.026267	91.147884	0.010971	0.090693	8.266432	0.120971	23
24	12.239157	102.174151	0.009787	0.081705	8.348137	0.119787	24
25	13.585464	114.413307	0.008740	0.073608	8.421745	0.118740	25
26	15.079865	127.998771	0.007813	0.066314	8.488058	0.117813	26
27	16.738650	143.078636	0.006989	0.059742	8.547800	0.116989	27
28	18.579901	159.817286	0.006257	0.053822	8.601622	0.116257	28
29			0.005605	0.033622	8.650110	0.115605	29
30	20.623691 22.892297	178.397187 199.020878	0.005025	0.043683	8.693793	0.115025	30
30	22.072271	199.020076	0.003023	0.043063	8.073173	0.115025	30
31	25.410449	221.913174	0.004506	0.039354	8.733146	0.114506	31
32	28.205599	247.323624	0.004043	0.035454	8.768600	0.114043	32
33	31.308214	275.529222	0.003629	0.031940	8.800541	0.113629	33
34	34.752118	306.837437	0.003259	0.028775	8.829316	0.113259	34
35	38.574851	341.589555	0.002927	0.025924	8.855240	0.112927	35
36	/2 91909E	380.164406	0.002630	0.023355	8.878594	0.112630	36
	42.818085						37
37	47.528074	422.982490	0.002364	0.021040	8.899635	0.112364	
38	52.756162	470.510564	0.002125	0.018955	8.918590	0.112125	38
39	58.559340	523.266726	0.001911	0.017077	8.935666	0.111911	39
40	65.000867	581.826066	0.001719	0.015384	8.951051	0.111719	40
41	72.150963	646.826934	0.001546	0.013860	8.964911	0.111546	41
42	80.087569	718.977896	0.001391	0.012486	8.977397	0.111391	42
43	88.897201	799.065465	0.001251	0.011249	8.988646	0.111251	43
44	98.675893	887.962666	0.001126	0.010134	8.998780	0.111126	44
45	109.530242	986.638559	0.001014	0.009130	9.007910	0.111014	45
46	121.578568	1096.168801	0.000912	0.008225	9.016135	0.110912	46
							47
47	134.952211	1217.747369	0.000821	0.007410	9.023545	0.110821	48
48	149.796954	1352.699580	0.000739	0.006676	9.030221	0.110739	
49	166.274619	1502.496533	0.000666	0.006014	9.036235	0.110666	49
50	184.564827	1668.771152	0.000599	0.005418	9.041653	0.110599	50

	AMOUNT OF \$1 AT COMPOUND INTEREST	2 ACCUMULATION OF \$1 PER PERIOD	3 SINKING FUND FACTOR	PRESENT VALUE REVERSION OF \$1	5 PRESENT VALUE ORD. ANNUITY \$1 PER PERIOD	6 INSTALLMENT TO AMORTIZE \$1	
YEARS							YEAR
1	1.120000	1.000000	1.000000	0.892857	0.892857	1.120000	1
2	1.254400	2.120000	0.471698	0.797194	1.690051	0.591698	2
3	1.404928	3.374400	0.296349	0.711780	2.401831	0.416349	3
4	1.573519	4.779328	0.209234	0.635518	3.037349		4
5	1.762342	6.352847	0.157410	0.567427	3.604776	0.329234 0.277410	5
6	1.973823	8.115189	0.123226	0.506631	4.111407	0.243226	6
7	2.210681	10.089012	0.099118	0.452349	4.563757	0.219118	7
8	2.475963	12.299693	0.081303	0.403883	4.967640	0.201303	8
9	2.773079	14.775656					
10	3.105848	17.548735	0.067679 0.056984	0.360610 0.321973	5.328250 5.650223	0.187679 0.176984	9 10
11	3.478550	20.654583	0.048415	0.287476	5.937699	0.168415	11
12	3.895976	24.133133	0.041437	0.256675	6.194374	0.161437	12
13	4.363493	28.029109	0.035677	0.229174	6.423548	0.155677	13
14	4.887112	32.392602	0.030871	0.204620	6.628168	0.150871	14
15	5.473566	37.279715	0.026824	0.182696	6.810864	0.146824	15
16	6.130394	42.753280	0.023390	0.163122	6.973986	0.143390	16
17	6.866041	48.883674	0.020457	0.145644	7,119630	0.140457	17
18	7.689966	55.749715	0.017937	0.130040	7.249670	0.137937	18
19	8.612762	63.439681					
			0.015763	0.116107	7.365777	0.135763	19
20	9.646293	72.052442	0.013879	0.103667	7.469444	0.133879	20
21	10.803848	81.698736	0.012240	0.092560	7.562003	0.132240	21
22	12.100310	92.502584	0.010811	0.082643	7.644646	0.130811	22
23	13.552347	104.602894	0.009560	0.073788	7.718434	0.129560	23
24	15.178629	118.155241	0.008463	0.065882	7.784316	0.128463	24
25	17.000064	133.333870	0.007500	0.058823	7.843139	0.127500	25
26	19.040072	150.333934	0.006652	0.052521	7.895660	0.126652	26
27	21.324881	169.374007	0.005904	0.046894	7.942554	0.125904	27
28	23.883866	190.698887	0.005244	0.041869	7.984423	0.125244	28
29	26.749930	214.582754	0.004660	0.037383	8.021806	0.124660	29
30	29.959922	241.332684	0.004144	0.037363	8.055184	0.124144	30
74	77 555447	271 202/0/	0.007/0/	0.020002	0.00/00/	0.407/0/	74
31	33.555113	271.292606	0.003686	0.029802	8.084986	0.123686	31
32	37.581726	304.847719	0.003280	0.026609	8.111594	0.123280	32
33	42.091533	342.429446	0.002920	0.023758	8.135352	0.122920	33
34	47.142517	384.520979	0.002601	0.021212	8.156564	0.122601	34
35	52.799620	431.663496	0.002317	0.018940	8.175504	0.122317	35
36	59.135574	484.463116	0.002064	0.016910	8.192414	0.122064	36
37	66.231843	543.598690	0.001840	0.015098	8.207513	0.121840	37
38	74.179664	609.830533	0.001640	0.013481	8.220993	0.121640	38
39	83.081224	684.010197	0.001462	0.012036	8.233030	0.121462	39
40	93.050970	767.091420	0.001304	0.010747	8.243777	0.121304	40
41	104.217087	860.142391	0.001163	0.009595	8.253372	0.121163	41
42	116.723137	964.359478	0.001037	0.008567	8.261939	0.1211037	42
43	130.729914	1081.082615	0.000925	0.007649		0.121037	43
					8.269589		
44 45	146.417503 163.987604	1211.812529 1358.230032	0.000825 0.000736	0.006830 0.006098	8.276418 8.282516	0.120825 0.120736	44 45
46 47	183.666116 205.706050	1522.217636 1705.883752	0.000657 0.000586	0.005445 0.004861	8.287961 8.292822	0.120657 0.120586	46 47
48	230.390776		0.000523	0.004340			48
		1911.589803			8.297163	0.120523	
49	258.037669	2141.980579	0.000467	0.003875	8.301038	0.120467	49
50	289.002190	2400.018249	0.000417	0.003460	8.304498	0.120417	50

ANNUAL COMPOUND INTEREST TABLES

	1	2	3	4	5	6	
	AMOUNT OF \$1	ACCUMULATION	SINKING		PRESENT VALUE	INSTALLMENT	
	AT COMPOUND	OF \$1	FUND	REVERSION	ORD, ANNUITY	10	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
YEARS							YEA
1	1.130000	1.000000	1.000000	0.884956	0.884956	1.130000	1
2	1.276900	2.130000	0.469484	0.783147	1.668102	0.599484	2
3	1.442897	3.406900	0.293522	0.693050	2.361153	0.423522	3
4	1.630474	4.849797	0.206194	0.613319	2.974471	0.336194	4
5	1.842435	6.480271	0.154315	0.542760	3.517231	0.284315	5
6	2.081952	8.322706	0.120153	0.480319	3.997550	0.250153	6
7	2.352605	10.404658	0.096111	0.425061	4.422610	0.226111	7
8	2.658444	12.757263	0.078387	0.376160	4.798770	0.208387	8
9	3.004042	15.415707	0.064869	0.332885	5.131655	0.194869	g
10	3.394567	18.419749	0.054290	0.294588	5.426243	0.184290	10
11	3.835861	21.814317	0.045841	0.260698	5.686941	0.175841	11
12	4.334523	25.650178	0.038986	0.230706	5.917647	0.168986	12
13	4.898011	29.984701	0.033350	0.204165	6.121812	0.163350	13
14	5.534753	34.882712	0.033330	0.180677	6.302488	0.158667	14
15	6.254270	40.417464	0.024742	0.159891	6.462379	0.154742	15
16	7 047734	/4 474775	0.034/34	0.4/4/04	6.603875	0.151426	16
16	7.067326 7.986078	46.671735	0.021426 0.018608	0.141496 0.125218	6.729093	0.151426	17
		53.739060					
18	9.024268	61.725138	0.016201	0.110812	6.839905	0.146201	18
19	10.197423	70.749406	0.014134	0.098064	6.937969	0.144134	19
20	11.523088	80.946829	0.012354	0.086782	7.024752	0.142354	20
21	13.021089	92.469917	0.010814	0.076798	7.101550	0.140814	21
22	14.713831	105.491006	0.009479	0.067963	7.169513	0.139479	22
23	16.626629	120.204837	0.008319	0.060144	7.229658	0.138319	23
24	18.788091	136.831465	0.007308	0.053225	7.282883	0.137308	24
25	21.230542	155.619556	0.006426	0.047102	7.329985	0.136426	25
26	23.990513	176.850098	0.005655	0.041683	7.371668	0.135655	26
27	27.109279	200.840611	0.004979	0.036888	7.408556	0.134979	27
28	30.633486	227.949890	0.004387	0.032644	7.441200	0.134387	28
29	34.615839	258.583376	0.003867	0.028889	7.470088	0.133867	29
30	39.115898	293.199215	0.003411	0.025565	7.495653	0.133411	30
31	44.200965	332.315113	0.003009	0.022624	7.518277	0.133009	31
32	49.947090	376.516078	0.002656	0.020021	7.538299	0.132656	32
33	56.440212	426.463168	0.002345	0.017718	7.556016	0.132345	33
34	63.777439	482.903380	0.002071	0.015680	7.571696	0.132071	34
35	72.068506	546.680819	0.001829	0.013876	7.585572	0.131829	35
36	81.437412	618.749325	0.001616	0.012279	7.597851	0.131616	36
37	92.024276	700.186738	0.001428	0.010867	7.608718	0.131428	37
38	103.987432	792.211014	0.001428	0.009617	7.618334	0.131262	38
39	117.505798	896.198445	0.001282	0.008510	7.626844	0.131116	39
40	132.781552	1013.704243	0.000986	0.007531	7.634376	0.130986	40
/4	150 0/7457	11/4 /05705	0 000073	0.006665	7.641040	0.130872	41
41	150.043153	1146.485795	0.000872			0.130872	42
42	169.548763	1296.528948	0.000771	0.005898	7.646938	0.130682	43
43	191.590103	1466.077712	0.000682	0.005219	7.652158		44
44	216.496816	1657.667814	0.000603	0.004619	7.656777	0.130603	
45	244.641402	1874.164630	0.000534	0.004088	7.660864	0.130534	45
46	276.444784	2118.806032	0.000472	0.003617	7.664482	0.130472	46
47	312.382606	2395.250816	0.000417	0.003201	7.667683	0.130417	47
48	352.992345	2707.633422	0.000369	0.002833	7.670516	0.130369	48
49	398.881350	3060.625767	0.000327	0.002507	7.673023	0.130327	49
50	450.735925	3459.507117	0.000289	0.002219	7.675242	0.130289	50

	AMOUNT OF \$1 AT COMPOUND INTEREST	ACCUMULATION OF \$1 PER PERIOD	SINKING FUND FACTOR	REVERSION OF \$1	PRESENT VALUE ORD. ANNUITY \$1 PER PERIOD	INSTALLMENT TO AMORTIZE \$1	
YEARS					• • • • • • • • • • • • • • • • • • • •		YEARS
1	1.140000	1.000000	1.000000	0.877193	0.877193	1.140000	1
2	1.299600	2.140000	0.467290	0.769468	1.646661	0.607290	2
3	1.481544	3.439600	0.290731	0.674972	2.321632	0.430731	3
4	1.688960	4.921144	0.203205	0.592080	2.913712	0.343205	4
5	1.925415	6.610104	0.151284	0.519369	3.433081	0.291284	5
6	2.194973	8.535519	0.117157	0.455587	3.888668	0.257157	6
7	2.502269	10.730491	0.093192	0.399637	4.288305	0.233192	7
8	2.852586	13.232760	0.075570	0.350559	4.638864	0.215570	8
9	3.251949	16.085347	0.062168	0.307508	4.946372	0.202168	9
10	3.707221	19.337295	0.051714	0.269744	5.216116	0.191714	10
11	4.226232	23.044516	0.043394	0.236617	5.452733	0.183394	11
12	4.817905	27.270749	0.036669	0.207559	5.660292	0.176669	12
13	5.492411	32.088654	0.031164	0.182069	5.842362	0.171164	13
14	6.261349	37.581065	0.026609	0.159710	6.002072	0.166609	14
15	7.137938	43.842414	0.022809	0.140096	6.142168	0.162809	15
16	8.137249	50.980352	0.019615	0.122892	6.265060	0.159615	16
17	9.276464	59.117601	0.016915	0.107800	6.372859	0.156915	17
18	10.575169	68.394066	0.014621	0.094561	6.467420	0.154621	18
19	12.055693	78.969235	0.012663	0.082948	6.550369	0.152663	19
20	13.743490	91.024928	0.010986	0.072762	6.623131	0.150986	20
21	15.667578	104.768418	0.009545	0.063826	6.686957	0.149545	21
22	17.861039	120.435996	0.008303	0.055988	6.742944	0.148303	22
23	20.361585	138.297035	0.007231	0.049112	6.792056	0.147231	23
24	23.212207	158.658620	0.006303	0.043081	6.835137	0.146303	24
25	26.461916	181.870827	0.005498	0.037790	6.872927	0.145498	25
26	30.166584	208.332743	0.004800	0.033149	6.906077	0.144800	26
27	34.389906	238.499327	0.004193	0.029078	6.935155	0.144193	27
28	39.204493	272.889233	0.003664	0.025507	6.960662	0.143664	28
29	44.693122	312.093725	0.003204	0.022375	6.983037	0.143204	29
30	50.950159	356.786847	0.002803	0.019627	7.002664	0.142803	30
31	58.083181	407.737006	0.002453	0.017217	7.019881	0.142453	31
32	66.214826	465.820186	0.002147	0.015102	7.034983	0.142147	32
33	75.484902	532.035012	0.001880	0.013248	7.048231	0.141880	33
34	86.052788	607.519914	0.001646	0.011621	7.059852	0.141646	34
35	98.100178	693.572702	0.001442	0.010194	7.070045	0.141442	35
36	111.834203	791.672881	0.001263	0.008942	7.078987	0.141263	36
37	127.490992	903.507084	0.001107	0.007844	7.086831	0.141107	37
38	145.339731	1030.998076	0.000970	0.006880	7.093711	0.140970	38
39	165.687293	1176.337806	0.000850	0.006035	7.099747	0.140850	39
40	188.883514	1342.025099	0.000745	0.005294	7.105041	0.140745	40
41	215.327206	1530.908613	0.000653	0.004644	7.109685	0.140653	41
42	245.473015	1746.235819	0.000573	0.004074	7.113759	0.140573	42
43	279.839237	1991.708833	0.000502	0.003573	7.117332	0.140502	43
44	319.016730	2271.548070	0.000440	0.003135	7.120467	0.140440	44
45	363.679072	2590.564800	0.000386	0.002750	7.123217	0.140386	45
46	414.594142	2954.243872	0.000338	0.002412	7.125629	0.140338	46
47	472.637322	3368.838014	0.000297	0.002116	7.127744	0.140297	47
48	538.806547	3841.475336	0.000260	0.001856	7.129600	0.140260	48
49	614.239464	4380.281883	0.000228	0.001628	7.131228	0.140228	49
50	700.232988	4994.521346	0.000220	0.001428	7.132656	0.140200	50

ANNUAL COMPOUND INTEREST TABLES

	1	2	3	4	5	6	
	AMOUNT OF \$1	ACCUMULATION	SINKING		PRESENT VALUE	INSTALLMENT	
	AT COMPOUND	OF \$1	FUND	REVERSION	ORD. ANNUITY	TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
YEARS							YEARS
1	1.150000	1.000000	1.000000	0.869565	0.869565	1.150000	1
2	1.322500	2.150000	0.465116	0.756144	1.625709	0.615116	2
3	1.520875	3.472500	0.287977	0.657516	2.283225	0.437977	3
4	1.749006	4.993375	0.200265	0.571753	2.854978	0.350265	4
5	2.011357	6.742381	0.148316	0.497177	3.352155	0.298316	5
6	2.313061	8.753738	0.114237	0.432328	3.784483	0.264237	6
7	2.660020	11.066799	0.090360	0.375937	4.160420	0.240360	7
8	3.059023	13.726819	0.072850	0.326902	4.487322	0.222850	8
9	3.517876	16.785842	0.059574	0.284262	4.771584	0.209574	9
10	4.045558	20.303718	0.049252	0.247185	5.018769	0.199252	10
						0.404040	44
11	4.652391	24.349276	0.041069	0.214943	5.233712	0.191069	11
12	5.350250	29.001667	0.034481	0.186907	5.420619	0.184481	12
13	6.152788	34.351917	0.029110	0.162528	5.583147	0.179110	13
14	7.075706	40.504705	0.024688	0.141329	5.724476	0.174688	14
15	8.137062	47.580411	0.021017	0.122894	5.847370	0.171017	15
16	9.357621	55.717472	0.017948	0.106865	5.954235	0.167948	16
17	10.761264	65.075093	0.015367	0.092926	6.047161	0.165367	17
18	12.375454	75.836357	0.013186	0.080805	6.127966	0.163186	18
19	14.231772	88.211811	0.011336	0.070265	6.198231	0.161336	19
20	16.366537	102.443583	0.009761	0.061100	6.259331	0.159761	20
						0.450/47	24
21	18.821518	118.810120	0.008417	0.053131	6.312462	0.158417	21
22	21.644746	137.631638	0.007266	0.046201	6.358663	0.157266	22
23	24.891458	159.276384	0.006278	0.040174	6.398837	0.156278	23
24	28.625176	184.167841	0.005430	0.034934	6.433771	0.155430	24
25	32.918953	212.793017	0.004699	0.030378	6.464149	0.154699	25
26	37.856796	245.711970	0.004070	0.026415	6.490564	0.154070	26
27	43.535315	283.568766	0.003526	0.022970	6.513534	0.153526	27
28	50.065612	327.104080	0.003057	0.019974	6.533508	0.153057	28
29		377.169693	0.003651	0.017369	6.550877	0.152651	29
30	57.575454 66.211772	434.745146	0.002300	0.015103	6.565980	0.152300	30
31	76.143538	500.956918	0.001996	0.013133	6.579113	0.151996	31
32	87.565068	577.100456	0.001733	0.011420	6.590533	0.151733	32
33	100.699829	664.665524	0.001505	0.009931	6.600463	0.151505	33
34	115.804803	765.365353	0.001307	0.008635	6.609099	0.151307	34
35	133.175523	881.170156	0.001135	0.007509	6.616607	0.151135	35
36	153.151852	1014.345680	0.000986	0.006529	6.623137	0.150986	36
37	176.124630	1167.497532	0.000857	0.005678	6.628815	0.150857	37
38	202.543324	1343.622161	0.000744	0.004937	6.633752	0.150744	38
39	232.924823	1546.165485	0.000647	0.004293	6.638045	0.150647	39
40	267.863546	1779.090308	0.000562	0.003733	6.641778	0.150562	40
	709 0/7070	20/4 05785/	0.000489	0.003246	6.645025	0.150489	41
41	308.043078	2046.953854			6.647848	0.150425	42
42	354.249540	2354.996933	0.000425	0.002823		0.150369	43
43	407.386971	2709.246473	0.000369	0.002455	6.650302		43
44	468.495017	3116.633443	0.000321	0.002134	6.652437	0.150321	45
45	538.769269	3585.128460	0.000279	0.001856	6.654293	0.150279	40
46	619.584659	4123.897729	0.000242	0.001614	6.655907	0.150242	46
47	712.522358	4743.482388	0.000211	0.001403	6.657310	0.150211	47
48	819.400712	5456.004746	0.000183	0.001220	6.658531	0.150183	48
	942.310819	6275.405458	0.000159	0.001061	6.659592	0.150159	49
49							

	1 AMOUNT OF \$1 AT COMPOUND	2 ACCUMULATION OF \$1	3 SINKING FUND	PRESENT VALUE REVERSION	5 PRESENT VALUE ORD. ANNUITY	6 INSTALLMENT TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
YEARS							YEARS
1	1.160000	1.000000	1.000000	0.862069	0.862069	1.160000	1
2	1.345600	2.160000	0.462963	0.743163	1.605232	0.622963	2
3	1.560896	3.505600	0.285258	0.640658	2.245890	0.445258	3
4	1.810639	5.066496	0.197375	0.552291	2.798181	0.357375	4
5	2.100342	6.877135	0.145409	0.476113	3.274294	0.305409	5
6	2,436396	8.977477	0.111390	0.410442	3.684736	0.271390	6
7	2.826220	11.413873	0.087613	0.353830	4.038565	0.247613	7
8	3.278415	14.240093	0.070224	0.305025	4.343591	0.230224	8
9	3.802961	17.518508	0.057082	0.262953	4.606544	0.217082	9
10	4.411435	21.321469	0.046901	0.226684	4.833227	0.206901	10
11	5.117265	25.732904	0.038861	0.195417	5.028644	0.198861	11
12	5.936027	30.850169	0.032415	0.168463	5.197107	0.192415	12
			0.032413	0.145227	5.342334	0.187184	13
13	6.885791	36.786196					
14	7.987518	43.671987	0.022898	0.125195	5.467529	0.182898	14
15	9.265521	51.659505	0.019358	0.107927	5.575456	0.179358	15
16	10.748004	60.925026	0.016414	0.093041	5.668497	0.176414	16
17	12.467685	71.673030	0.013952	0.080207	5.748704	0.173952	17
18	14.462514	84.140715	0.011885	0.069144	5.817848	0.171885	18
19	16.776517	98.603230	0.010142	0.059607	5.877455	0.170142	19
20	19.460759	115.379747	0.008667	0.051385	5.928841	0.168667	20
21	22.574481	134.840506	0.007416	0.044298	5.973139	0.167416	21
			0.006353	0.038188	6.011326	0.166353	22
22	26.186398	157.414987					23
23	30.376222	183.601385	0.005447	0.032920	6.044247	0.165447	
24	35.236417	213.977607	0.004673	0.028380	6.072627	0.164673	24
25	40.874244	249.214024	0.004013	0.024465	6.097092	0.164013	25
26	47.414123	290.088267	0.003447	0.021091	6.118183	0.163447	26
27	55.000382	337.502390	0.002963	0.018182	6.136364	0.162963	27
28	63.800444	392.502773	0.002548	0.015674	6.152038	0.162548	28
29	74.008515	456.303216	0.002192	0.013512	6.165550	0.162192	29
30	85.849877	530.311731	0.001886	0.011648	6.177198	0.161886	30
31	99.585857	616.161608	0.001623	0.010042	6.187240	0.161623	31
32	115.519594	715.747465	0.001397	0.008657	6.195897	0.161397	32
33	134.002729	831.267059	0.001203	0.007463	6.203359	0.161203	33
34	155.443166	965.269789	0.001036	0.006433	6.209792	0.161036	34
35	180.314073	1120.712955	0.000892	0.005546	6.215338	0.160892	35
36	209.164324	1301.027028	0.000769	0.004781	6.220119	0.160769	36
37	242.630616	1510.191352	0.000662	0.004121	6.224241	0.160662	37
			0.000571	0.003553	6.227794	0.160571	38
38	281.451515	1752.821968			6.230857	0.160492	39
39 40	326.483 <i>7</i> 57 378.721158	2034.273483 2360.757241	0.000492 0.000424	0.003063 0.002640	6.233497	0.160492	40
						0.160365	41
41	439.316544	2739.478399	0.000365	0.002276	6.235773		42
42	509.607191	3178.794943	0.000315	0.001962	6.237736	0.160315	
43	591.144341	3688.402134	0.000271	0.001692	6.239427	0.160271	43
44	685.727436	4279.546475	0.000234	0.001458	6.240886	0.160234	44
45	795.443826	4965.273911	0.000201	0.001257	6.242143	0.160201	45
46	922.714838	5760.717737	0.000174	0.001084	6.243227	0.160174	46
47	1070.349212	6683.432575	0.000150	0.000934	6.244161	0.160150	47
48	1241.605086	7753.781787	0.000129	0.000805	6.244966	0.160129	48
49	1440.261900	8995.386873	0.000111	0.000694	6.245661	0.160111	49
50	1670.703804	10435.648773	0.000096	0.000599	6.246259	0.160096	50

ANNUAL COMPOUND INTEREST TABLES

	1	2	3	4	5	6	
	AMOUNT OF \$1	ACCUMULATION	SINKING	PRESENT VALUE	PRESENT VALUE	INSTALLMENT	
	AT COMPOUND	OF \$1	FUND	REVERSION	ORD. ANNUITY	TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
YEARS							YEARS
1	1.170000	1.000000	1.000000	0.854701	0.854701	1.170000	1
2	1.368900	2.170000	0.460829	0.730514	1.585214	0.630829	2
3	1.601613	3.538900	0.282574	0.624371	2.209585	0.452574	3
4	1.873887	5.140513	0.194533	0.533650	2.743235	0.364533	4
5	2.192448	7.014400	0.142564	0.456111	3.199346	0.312564	5
							,
6	2.565164	9.206848	0.108615	0.389839	3.589185	0.278615	6
20 <b>41 7</b>	3.001242	11.772012	0.084947	0.333195	3.922380	0.254947	7
8	3.511453	14.773255	0.067690	0.284782	4.207163	0.237690	8
9	4.108400	18.284708	0.054691	0.243404	4.450566	0.224691	9
10	4.806828	22.393108	0.044657	0.208037	4.658604	0.214657	10
		27 400077	0.07/7/5	0.477040	/ 07//47	0.20/7/5	4.4
11	5.623989	27.199937	0.036765	0.177810	4.836413	0.206765	11
12	6.580067	32.823926	0.030466	0.151974	4.988387	0.200466	12
13	7.698679	39.403993	0.025378	0.129892	5.118280	0.195378	13
14	9.007454	47.102672	0.021230	0.111019	5.229299	0.191230	14
15	10.538721	56.110126	0.017822	0.094888	5.324187	0.187822	15
					- /	0.405007	4.4
16	12.330304	66.648848	0.015004	0.081101	5.405288	0.185004	16
17	14.426456	78.979152	0.012662	0.069317	5.474605	0.182662	17
18	16.878953	93.405608	0.010706	0.059245	5.533851	0.180706	18
19	19.748375	110.284561	0.009067	0.050637	5.584488	0.179067	19
20	23.105599	130.032936	0.007690	0.043280	5.627767	0.177690	20
21	27.033551	153.138535	0.006530	0.036991	5.664758	0.176530	21
22	31.629255	180.172086	0.005550	0.031616	5.696375	0.175550	22
23	37.006228	211.801341	0.004721	0.027022	5.723397	0.174721	23
24	43.297287	248.807569	0.004019	0.023096	5.746493	0.174019	24
25	50.657826	292.104856	0.003423	0.019740	5.766234	0.173423	25
26	59.26 <del>96</del> 56	342.762681	0.002917	0.016872	5.783106	0.172917	26
27	69.345497	402.032337	0.002487	0.014421	5.797526	0.172487	27
28	81.134232	471.377835	0.002121	0.012325	5.809851	0.172121	28
29	94.927051	552.512066	0.001810	0.010534	5.820386	0.171810	29
30	111.064650	647.439118	0.001545	0.009004	5.829390	0.171545	30
31	129.945641	758.503768	0.001318	0.007696	5.837085	0.171318	31
32	152.036399	888.449408	0.001126	0.006577	5.843663	0.171126	32
33	177.882587	1040.485808	0.000961	0.005622	5.849284	0.170961	33
34	208.122627	1218.368395	0.000821	0.004805	5.854089	0.170821	34
35	243.503474	1426.491022	0.000701	0.004107	5.858196	0.170701	35
36	284.899064	1669.994496	0.000599	0.003510	5.861706	0.170599	36
37	333.331905	1954.893560	0.000512	0.003000	5.864706	0.170512	37
38	389.998329	2288.225465	0.000437	0.002564	5.867270	0.170437	38
39	456.298045	2678.223794	0.000373	0.002192	5.869461	0.170373	39
40	533.868713	3134.521839	0.000319	0.001873	5.871335	0.170319	40
41	624.626394	3668.390552	0.000273	0.001601	5.872936	0.170273	41
42	730.812881	4293.016946	0.000233	0.001368	5.874304	0.170233	42
43	855.051071	502 <b>3.829827</b>	0.000199	0.001170	5.875473	0.170199	43
44	1000.409753	5878.880897	0.000170	0.001000	5.8764 <i>7</i> 3	0.170170	44
45	1170.479411	6879.290650	0.000145	0.000854	5.877327	0.170145	45
					F 0700F0	0.470427	,,
46	1369.460910	8049.770061	0.000124	0.000730	5.878058	0.170124	46
47	1602.269265	9419.230971	0.000106	0.000624	5.878682	0.170106	47
48	1874.655040	11021.500236	0.000091	0.000533	5.879215	0.170091	48
49	2193.346397	12896.155276	0.000078	0.000456	5.879671	0.170078	49
50	2566.215284	15089.501673	0.000066	0.000390	5.880061	0.170066	50

28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991  31 169.177353 934.318630 32 199.629277 1103.495983 33 225.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612  36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	SINKING FUND FACTOR	PRESENT VALUE REVERSION OF \$1	5 PRESENT VALUE ORD. ANNUITY \$1 PER PERIOD	6 INSTALLMENT TO AMORTIZE \$1	
2 1.392400 2.180000 3 1.643032 3.572400 4 1.938778 5.215432 5 2.287758 7.154210 6 2.699554 9.441968 7 3.185474 12.141522 8 3.758859 15.326996 9 4.435454 19.085855 10 5.233836 23.521309 11 6.175926 28.755144 12 7.287593 34.931070 13 8.599359 42.218663 14 10.147244 50.818022 15 11.973748 60.965266 16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.885705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105					YEARS
3         1.643032         3.572400           4         1.938778         5.215432           5         2.287758         7.154210           6         2.699554         9.441968           7         3.185474         12.141522           8         3.758859         15.326996           9         4.435454         19.085855           10         5.233836         23.521309           11         6.175926         28.755144           12         7.287593         34.931070           13         8.599359         42.218663           14         10.147244         50.818022           15         11.973748         60.965266           16         14.129023         72.939014           17         16.672247         87.068036           18         19.673251         103.740283           19         23.214436         123.413534           20         27.393035         146.627970           21         32.323781         174.021005           22         38.142061         206.344785           23         45.007632         244.868647           24         53.109006         289.494479	1.000000	0.847458	0.847458	1.180000	1
4 1.938778 5.215432 5 2.287758 7.154210 6 2.699554 9.441968 7 3.185474 12.141522 8 3.758859 15.326996 9 4.435454 19.085855 10 5.233836 23.521309 11 6.175926 28.755144 12 7.287593 34.931070 13 8.599359 42.218663 14 10.147244 50.818022 15 11.973748 60.965266 16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.86847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.458716	0.718184	1.565642	0.638716	2
4         1.938778         5.215432           5         2.287758         7.154210           6         2.699554         9.441968           7         3.185474         12.141522           8         3.758859         15.326996           9         4.435454         19.085855           10         5.233836         23.521309           11         6.175926         28.755144           12         7.287593         34.931070           13         8.599359         42.218663           14         10.147244         50.818022           15         11.973748         60.965266           16         14.129023         72.939014           17         16.672247         87.068036           18         19.673251         103.740283           19         23.214436         123.413534           20         27.393035         146.627970           21         32.323781         174.021005           22         38.142061         206.344785           23         45.007632         244.86847           24         53.109006         289.494479           25         62.668627         342.603486	0.279924	0.608631	2.174273	0.459924	3
5 2.287758 7.154210 6 2.699554 9.441968 7 3.185474 12.141522 8 3.758859 15.326996 9 4.435454 19.085855 10 5.233836 23.521309 11 6.175926 28.755144 12 7.287593 34.931070 13 8.599359 42.218663 14 10.147244 50.818022 15 11.973748 60.965266 16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.191739		2.690062	0.371739	4
7 3.185474 12.141522 8 3.758859 15.326996 9 4.435454 19.085855 10 5.233836 23.521309 11 6.175926 28.755144 12 7.287593 34.931070 13 8.599359 42.218663 14 10.147244 50.818022 15 11.973748 60.965266 16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 7716.683879 9531.577105	0.139778		3.127171	0.319778	5
8 3.758859 15.326996 9 4.435454 19.085855 10 5.233836 23.521309  11 6.175926 28.755144 12 7.287593 34.931070 13 8.599359 42.218663 14 10.147244 50.818022 15 11.973748 60.965266  16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 123.413534 20 27.393035 146.627970  21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.6668627 342.603486  26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991  31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612  36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.105910	0.370432	3.497603	0.285910	6
9 4.435454 19.085855 10 5.233836 23.521309  11 6.175926 28.755144 12 7.287593 34.931070 13 8.599359 42.218663 14 10.147244 50.818022 15 11.973748 60.965266  16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970  21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486  26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991  31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 3303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612  36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.2999175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.082362	0.313925	3.811528	0.262362	7
10 5.233836 23.521309  11 6.175926 28.755144  12 7.287593 34.931070  13 8.599359 42.218663  14 10.147244 50.818022  15 11.973748 60.965266  16 14.129023 72.939014  17 16.672247 87.068036  18 19.673251 103.740283  19 23.214436 123.413534  20 27.393035 146.627970  21 32.323781 174.021005  22 38.142061 206.344785  23 45.007632 244.486847  24 53.109006 289.494479  25 62.668627 342.603486  26 73.948980 405.272113  27 87.259797 479.221093  28 102.966560 566.480890  29 121.500541 669.447450  30 143.370638 790.947991  31 169.177353 934.318630  32 199.629277 1103.495983  33 235.562547 1303.125260  34 277.963805 1538.687807  35 327.997290 1816.651612  36 387.036802 2144.648902  37 456.703427 2531.685705  38 538.910044 2988.389132  39 635.913852 3527.299175  40 750.378345 4163.213027  41 885.446447 4913.591372  42 1044.826807 5799.037819  43 1232.895633 6843.864626  44 1454.816847 8076.760259  45 1716.683879 9531.577105	0.065244	0.266038	4.077566	0.245244	8
10 5.233836 23.521309  11 6.175926 28.755144  12 7.287593 34.931070  13 8.599359 42.218663  14 10.147244 50.818022  15 11.973748 60.965266  16 14.129023 72.939014  17 16.672247 87.068036  18 19.673251 103.740283  19 23.214436 123.413534  20 27.393035 146.627970  21 32.323781 174.021005  22 38.142061 206.344785  23 45.007632 244.486847  24 53.109006 289.494479  25 62.668627 342.603486  26 73.948980 405.272113  27 87.259797 479.221093  28 102.966560 566.480890  29 121.500541 669.447450  30 143.370638 790.947991  31 169.177353 934.318630  32 199.629277 1103.495983  33 235.562547 1303.125260  34 277.963805 1538.687807  35 327.997290 1816.651612  36 387.036802 2144.648902  37 456.703427 2531.685705  38 538.910044 2988.389132  39 635.913852 3527.299175  40 750.378345 4163.213027  41 885.446447 4913.591372  42 1044.826807 5799.037819  43 1232.895633 6843.864626  44 1454.816847 8076.760259  45 1716.683879 9531.577105	0.052395		4.303022	0.232395	9
12 7.287593 34.931070 13 8.599359 42.218663 14 10.147244 50.818022 15 11.973748 60.965266 16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.86847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.042515		4.494086	0.222515	10
13         8.599359         42.218663           14         10.147244         50.818022           15         11.973748         60.965266           16         14.129023         72.939014           17         16.672247         87.068036           18         19.673251         103.740283           19         23.214436         123.413534           20         27.393035         146.627970           21         32.323781         174.021005           22         38.142061         206.344785           23         45.007632         244.86847           24         53.109006         289.494479           25         62.668627         342.603486           26         73.948980         405.272113           27         87.259797         479.221093           28         102.966560         566.480890           29         121.500541         669.447450           30         143.370638         790.947991           31         169.177353         934.318630           32         199.629277         1103.495983           33         235.562547         1303.125260           34         277.963805	0.034776	0.161919	4.656005	0.214776	11
13 8.599359 42.218663 14 10.147244 50.818022 15 11.973748 60.965266 16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.028628		4.793225	0.208628	12
14 10.147244 50.818022 15 11.973748 60.965266 16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.2999175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.023686		4.909513	0.203686	13
15 11.973748 60.965266  16 14.129023 72.939014  17 16.672247 87.068036  18 19.673251 103.740283  19 23.214436 123.413534  20 27.393035 146.627970  21 32.323781 174.021005  22 38.142061 206.344785  23 45.007632 244.486847  24 53.109006 289.494479  25 62.668627 342.603486  26 73.948980 405.272113  27 87.259797 479.221093  28 102.966560 566.480890  29 121.500541 669.447450  30 143.370638 790.947991  31 169.177353 934.318630  32 199.629277 1103.495983  33 235.562547 1303.125260  34 277.963805 1538.687807  35 327.997290 1816.651612  36 387.036802 2144.648902  37 456.703427 2531.685705  38 538.910044 2988.389132  39 635.913852 3527.299175  40 750.378345 4163.213027  41 885.446447 4913.591372  42 1044.826807 5799.037819  43 1232.895633 6843.864626  44 1454.816847 8076.760259  45 7716.683879 9531.577105	0.019678		5.008062	0.199678	
16 14.129023 72.939014 17 16.672247 87.068036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.016403		5.091578	0.199678	14 15
17 16.672247 87.088036 18 19.673251 103.740283 19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.2999175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.010403	0.003318	3.091376	0.196403	15
18         19.673251         103.740283           19         23.214436         123.413534           20         27.393035         146.627970           21         32.323781         174.021005           22         38.142061         206.344785           23         45.007632         244.486847           24         53.109006         289.494479           25         62.668627         342.603486           26         73.948980         405.272113           27         87.259797         479.221093           28         102.966560         566.480890           29         121.500541         669.447450           30         143.370638         790.947991           31         169.177353         934.318630           32         199.629277         1103.495983           33         235.562547         1303.125260           34         277.963805         1538.687807           35         327.997290         1816.651612           36         387.036802         2144.648902           37         456.703427         2531.685705           38         538.910044         2988.389132           39         635.913852<	0.013710	0.070776	5.162354	0.193710	16
19 23.214436 123.413534 20 27.393035 146.627970 21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.011485	0.059980	5.222334	0.191485	17
19 23.214436 123.413534 20 27.393035 146.627970   21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486   26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991   31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612   36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027   41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105   46 2025.686977 11248.260984	0.009639	0.050830	5.273164	0.189639	18
20 27.393035 146.627970  21 32.323781 174.021005 22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486  26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991  31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612  36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.008103		5.316241	0.188103	19
22 38.142061 206.344785 23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 7716.683879 9531.577105	0.006820		5.352746	0.186820	20
23	0.005746	0.030937	5.383683	0.185746	21
23 45.007632 244.486847 24 53.109006 289.494479 25 62.668627 342.603486 26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 7716.683879 9531.577105	0.004846		5.409901	0.184846	22
24 53.109006 289.494479 25 62.668627 342.603486  26 73.948980 405.272113 27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991  31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612  36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.004090		5.432120	0.184090	23
25 62.668627 342.603486  26 73.948980 405.272113  27 87.259797 479.221093  28 102.966560 566.480890  29 121.500541 669.447450  30 143.370638 790.947991  31 169.177353 934.318630  32 199.629277 1103.495983  33 235.562547 1303.125260  34 277.963805 1538.687807  35 327.997290 1816.651612  36 387.036802 2144.648902  37 456.703427 2531.685705  38 538.910044 2988.389132  39 635.913852 3527.299175  40 750.378345 4163.213027  41 885.446447 4913.591372  42 1044.826807 5799.037819  43 1232.895633 6843.864626  44 1454.816847 8076.760259  45 716.683879 9531.577105	0.003454		5.450949	0.183454	24
27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.002919		5.466906	0.182919	25
27 87.259797 479.221093 28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991 31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.002467	0.013523	5.480429	0.182467	26
28 102.966560 566.480890 29 121.500541 669.447450 30 143.370638 790.947991  31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612  36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.002087		5.491889	0.182087	27
29 121.500541 669.447450 30 143.370638 790.947991  31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612  36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.001765	0.009712	5.501601	0.181765	28
30 143.370638 790.947991  31 169.177353 934.318630 32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612  36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.001783	0.008230	5.509831		
32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.001264	0.006975	5.516806	0.181494 0.181264	29 30
32 199.629277 1103.495983 33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.001070	0.005911	5.522717	0.181070	31
33 235.562547 1303.125260 34 277.963805 1538.687807 35 327.997290 1816.651612 36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.001070	0.005009			
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35 327.997290 1816.651612  36 387.036802 2144.648902 37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.000767	0.004245	5.531971	0.180767	33
37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.000650 0.000550	0.003598 0.003049	5.535569 5.538618	0.180650 0.180550	34 35
37 456.703427 2531.685705 38 538.910044 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027  41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.000466	0.003584	E E/1201	0.180///	7.
38 538.91004 2988.389132 39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105			5.541201	0.180466	36
39 635.913852 3527.299175 40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105 46 2025.686977 11248.260984	0.000395	0.002190	5.543391	0.180395	37
40 750.378345 4163.213027 41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105 46 2025.686977 11248.260984	0.000335	0.001856	5.545247	0.180335	38
41 885.446447 4913.591372 42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105	0.000284	0.001573	5.546819	0.180284	39
42 1044.826807 5799.037819 43 1232.895633 6843.864626 44 1454.816847 8076.760259 45 1716.683879 9531.577105 46 2025.686977 11248.260984	0.000240	0.001333	5.548152	0.180240	40
43 1232.895633 6843.84626 44 1454.816847 8076.760259 45 1716.683879 9531.577105 46 2025.686977 11248.260984	0.000204	0.001129	5.549281	0.180204	41
44 1454.816847 8076.760259 45 1716.683879 9531.577105 46 2025.686977 11248.260984	0.000172	0.000957	5.550238	0.180172	42
44 1454.816847 8076.760259 45 1716.683879 9531.577105 46 2025.686977 11248.260984	0.000146	0.000811	5.551049	0.180146	43
46 2025.686977 11248.260984	0.000124	0.000687	5.551737	0.180124	44
	0.000105	0.000583	5.552319	0.180105	45
	0.000089	0.000494	5.552813	0.180089	46
	0.000075	0.000418	5.553231	0.180075	47
	0.000064	0.000355	5.553586	0.180064	48
	0.000054	0.000300	5.553886	0.180054	49
	0.000034	0.000355	5.554141	0.180034	50

ANNUAL COMPOUND INTEREST TABLES

	1	2	3	4	5	6	
	AMOUNT OF \$1	ACCUMULATION	SINKING		PRESENT VALUE	INSTALLMENT	
	AT COMPOUND	OF \$1	FUND	REVERSION	ORD. ANNUITY	TO	
	INTEREST	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
						***************************************	
/EARS							YEARS
1	1.190000	1.000000	1.000000	0.840336	0.840336	1.190000	1
2	1.416100	2.190000	0.456621	0.706165	1.546501	0.646621	2
3	1.685159	3.606100	0.277308	0.593416	2.139917	0.467308	3
4	2.005339	5.291259	0.188991	0.498669	2.638586	0.378991	4
5	2.386354	7.296598	0.137050	0.419049	3.057635	0.327050	5
6	2.839761	9.682952	0.103274	0.352142	3,409777	0.293274	6
7	3.379315	12.522713	0.079855	0.295918	3.705695	0.269855	7
8	4.021385	15.902028	0.062885	0.248671	3.954366	0.252885	8
9	4.785449	19.923413	0.050192	0.208967	4.163332	0.240192	9
10	5.694684	24.708862	0.040471	0.175602	4.103332	0.230471	10
	31074004	241100002	0.040471	0.175002	4.330733	0.230471	
11	6.776674	30.403546	0.032891	0.147565	4.486500	0.222891	11
12	8.064242	37.180220	0.026896	0.124004	4.610504	0.216896	12
13	9.596448	45.244461	0.022102	0.104205	4.714709	0.212102	13
14	11.419773	54.840909	0.018235	0.087567	4.802277	0.208235	14
15	13.589530	66.260682	0.015092	0.073586	4.875863	0.205092	15
16	16.171540	79.850211	0.012523	0.061837	4.937700	0.202523	16
17	19.244133	96.021751	0.010414	0.051964	4.989664	0.202525	17
18	22.900518	115.265884	0.008676	0.043667	5.033331	0.198676	18
19	27.251616	138.166402	0.007238	0.036695	5.070026	0.197238	19
20	32.429423	165.418018	0.006045	0.030836	5.100862	0.196045	20
21	38.591014	197.847442	0.005054	0.025913	5.126775	0.195054	21
22	45.923307	236.438456	0.004229	0.021775	5.148550	0.194229	22
23	54.648735	282.361762	0.003542	0.018299	5.166849	0.193542	23
24	65.031994	337.010497	0.002967	0.015377	5.182226	0.192967	24
25	77.388073	402.042491	0.002487	0.013977	5.195148	0.192487	25
				***************************************		***************************************	
26	92.091807	479.430565	0.002086	0.010859	5.206007	0.192086	26
27	109.589251	571.522372	0.001750	0.009125	5.215132	0.191750	27
28	130.411208	681.111623	0.001468	0.007668	5.222800	0.191468	28
29	155.189338	811.522831	0.001232	0.006444	5.229243	0.191232	29
30	184.675312	966.712169	0.001034	0.005415	5.234658	0.191034	30
31	219.763621	1151.387481	0.000869	0.004550	5.239209	0.190869	31
32	261.518710	1371.151103	0.000339	0.003824	5.243033	0.190009	32
						0.190729	
33	311.207264	1632.669812	0.000612	0.003213	5.246246		33
34 35	370.336645	1943.877077	0.000514	0.002700	5.248946	0.190514	34 35
33	440.700607	2314.213721	0.000432	0.002269	5.251215	0.190432	33
36	524.433722	2754.914328	0.000363	0.001907	5.253122	0.190363	36
37	624.076130	3279.348051	0.000305	0.001602	5.254724	0.190305	37
38	742.650594	3903.424180	0.000256	0.001347	5.256071	0.190256	38
39	883.754207	4646.074775	0.000215	0.001132	5.257202	0.190215	39
40	1051.667507	5529.828982	0.000181	0.000951	5.258153	0.190181	40
41	1251.484333	6581.496488	0.000152	0.000799	5.258952	0.190152	41
42	1489.266356	7832.980821	0.000132	0.000777	5.259624	0.190128	42
42						0.190128	42
	1772.226964	9322.247177	0.000107	0.000564	5.260188		
44	2108.950087	11094.474141	0.000090	0.000474	5.260662	0.190090	44
45	2509.650603	13203.424228	0.000076	0.000398	5.261061	0.190076	45
46	2986.484218	15713.074831	0.000064	0.000335	5.261396	0.190064	46
47	3553.916219	18699.559049	0.000053	0.000281	5.261677	0.190053	47
48	4229.160301	22253.475268	0.000045	0.000236	5.261913	0.190045	48
49	5032.700758	26482.635569	0.000038	0.000199	5.262112	0.190038	49
50	5988.913902	31515.336327	0.000032	0.000167	5.262279	0.190032	50
- •	00.,.5,02	J.J. 13.3303E1	0.000032	0.000107	J. LULL! Y	0.170032	

	1	2	3	4	5	6	
	AMOUNT OF \$1		SINKING		PRESENT VALUE		
	AT COMPOUND	OF \$1	FUND				
	INTEREST			REVERSION	ORD. ANNUITY		
	INICKESI	PER PERIOD	FACTOR	OF \$1	\$1 PER PERIOD	AMORTIZE \$1	
YEARS							YEARS
1	1.200000	1,000000	1.000000	0.833333	0.833333	1.200000	1
2	1.440000	2.200000	0.454545	0.694444	1.527778	0.654545	ż
3	1.728000	3.640000	0.274725	0.578704	2.106481		
4	2.073600	5.368000	0.186289	0.482253		0.474725	3
5	2.488320	7.441600	0.134380	0.401878	2.588735 2.990612	0.386289 0.334380	4 5
_					21770012	0.334300	,
6	2.985984	9.929920	0.100706	0.334898	3.325510	0.300706	6
7	3.583181	12.915904	0.077424	0.279082	3.604592	0.277424	7
8	4.299817	16.499085	0.060609	0.232568	3.837160	0.260609	8
9	5.159780	20.798902	0.048079	0.193807	4.030967	0.248079	9
10	6.191736	25.958682	0.038523	0.161506	4.192472	0.238523	10
44	7 (7000/	72 450/40	0.074407				
11	7.430084	32.150419	0.031104	0.134588	4.327060	0.231104	11
12	8.916100	39.580502	0.025265	0.112157	4.439217	0.225265	12
13	10.699321	48.496603	0.020620	0.093464	4.532681	0.220620	13
14	12.839185	59.195923	0.016893	0.077887	4.610567	0.216893	14
15	15.407022	72.035108	0.013882	0.064905	4.675473	0.213882	15
16	18.488426	87.442129	0.011436	0.054088	4.729561	0.211436	14
17	22.186111						16
		105.930555	0.009440	0.045073	4.774634	0.209440	17
18	26.623333	128.116666	0.007805	0.037561	4.812195	0.207805	18
19	31.948000	154.740000	0.006462	0.031301	4.843496	0.206462	19
20	38.337600	186.688000	0.005357	0.026084	4.869580	0.205357	20
21	46.005120	225.025600	0.004444	0.021737	4.891316	0.204444	21
22	55.206144	271.030719	0.003690	0.018114	4.909430	0.203690	22
23	66.247373	326.236863					
			0.003065	0.015095	4.924525	0.203065	23
24	79.496847	392.484236	0.002548	0.012579	4.937104	0.202548	24
25	95.396217	471.981083	0.002119	0.010483	4.947587	0.202119	25
26	114.475460	567.377300	0.001762	0.008735	4.956323	0.201762	26
27	137.370552	681.852760	0.001467	0.007280	4.963602	0.201467	27
28	164.844662	819.223312	0.001221	0.006066	4.969668	0.201221	28
29	197.813595	984.067974	0.001016	0.005055	4.974724	0.201016	29
30	237.376314	1181.881569	0.000846	0.004213	4.978936	0.200846	30
31	284.851577	1419.257883	0.000705	0.003511	4.982447	0.200705	31
32	341.821892	1704.109459	0.000587	0.002926	4.985372	0.200587	32
33	410.186270	2045.931351	0.000489	0.002438	4.987810	0.200489	33
34	492.223524	2456.117621	0.000407	0.002032	4.989842	0.200407	34
35	590.668229	2948.341146	0.000339	0.001693	4.991535	0.200339	35
7.	700 0040-	7570 000775		0.004/11			-,
36	708.801875	3539.009375	0.000283	0.001411	4.992946	0.200283	36
37	850.562250	4247.811250	0.000235	0.001176	4.994122	0.200235	37
38	1020.674700	50 <b>98.373500</b>	0.000196	0.000980	4.995101	0.200196	38
39	1224.809640	6119.048200	0.000163	0.000816	4.995918	0.200163	39
40	1469.771568	7343.857840	0.000136	0.000680	4.996598	0.200136	40
/1	1747 725002	0017 (30/00	0.000447	0.000573	/ 0074/5	0.200447	/1
41	1763.725882	8813.629408	0.000113	0.000567	4.997165	0.200113	41
42	2116.471058	10577.355289	0.000095	0.000472	4.997638	0.200095	42
43	2539.765269	12693.826347	0.000079	0.000394	4.998031	0.200079	43
44	3047.718323	15233.591617	0.000066	0.000328	4.998359	0.200066	44
45	3657.261988	18281.309940	0.000055	0.000273	4.998633	0.200055	45
46	4388.714386	21938.571928	0.000046	0.000228	4.998861	0.200046	46
47	5266.457263		0.000038	0.000228	4.999051	0.200048	47
		26327.286314					
48	6319.748715	31593.743576	0.000032	0.000158	4.999209	0.200032	48
49	7583.698458	37913.492292	0.000026	0.000132	4.999341	0.200026	49
	D100 /701E0	45497.190750	0.000022	0.000110	4.999451	0.200022	50
50	9100.438150	43471.170130	0.000022	0.000110	*******	0.200022	,,

# **Attached Formula collection.**

# **Number of periods:**

$$n = \frac{\ln \left(\frac{FV}{PV}\right)}{\ln(1 + i)}$$

# **Future Value for Multiple Cash:**

# a. Ordinary

$$- FV = PMT(1+i)^{n-1} + PMT(1+i)^{n-2} + PMT$$

Annuity

$$AFV = C \frac{(1 + i)^n - 1}{i}$$

# b. Due:

$$A_{DUE}FV = PMT(1+i)^{n} + PMT(1+i)^{n-1} + PMT(1+i)^{n-2} + \dots + PMT(1+i)$$

Annuity

A DUE 
$$FV = C \left[ \frac{(1+i)^n - 1}{i} \right] x(1+i)$$

# **Present Value for Multiple Cash:**

# a. Ordinary

$$PV = \frac{CF_1}{(1+i)} + \frac{CF_2}{(1+i)^2} + \frac{CF_3}{(1+i)^3} + \frac{CF_4}{(1+i)^4}$$

Annuity

$$APV = C * \left[ \frac{1 - \left(\frac{1}{(1+i)^n}\right)}{i} \right]$$

#### b. Due:

$$A_{DUE}PV = C \left[ \frac{1 - \left(\frac{1}{(1+i)^n}\right)}{i} \right] x(1+i)$$

#### Net present Value

$$NPV = -Costs..of.the..project + \frac{CF1}{(1+i)} + \frac{CF2}{(1+i)^2} + \frac{CF3}{(1+i)^3}..$$

# **Duration**

$$DUR = \sum_{t=1}^{n} t \frac{CP_{t}}{(1+i)^{t}} \left| \sum_{t=1}^{n} \frac{CP_{t}}{(1+i)^{t}} \right|$$

$$\%\Delta P \approx -DUR \times \frac{\Delta i}{1+i}$$

# **Probability distribution**

$$E(R) = p_1.E(R_1) + p_2E(R_2)$$

$$\sigma^{2} = p_{1}[R_{1} - E(R)]^{2} + p_{2}[R_{2} - E(R)]^{2} + p_{3}(R_{3} - E(R))^{2} \dots \qquad \sigma = \sqrt{\sigma^{2}}$$

# **Historical Data**

$$E(R) = \frac{R_1 + R_2 + R_3 + R_T}{T}$$

$$\sigma^{2} = \frac{1}{T-1} (R_{1} - E(R))^{2} + \dots (R_{T} - E(R))^{2}$$

$$\sigma = \sqrt{\sigma^{2}}$$

# Portfolio for 2 stocks (A & B) and 2 states of the economy (boom & recession)

$$E(R)_{p} = w_{A} (E(R)_{A} + w_{B} (E(R)_{B})$$

$$R_{P1} = W_A R_A + W_B R_B + Boom$$

$$R_{p,\gamma} = W_{\Delta} R_{\Delta} + W_{R} R_{R} + \dots$$
 Recession

$$\sigma^2 = \text{Pr} \cdot (R_{P_1} - E(R_P))^2 + \text{Pr} \cdot (R_{P_2} - E(R_P))^2$$

# **Bonds valuation**

Bond Value (PV) = 
$$C \left[ \frac{1 - \frac{1}{(1+i)^n}}{i} \right] + \frac{F}{(1+i)^n}$$

$$YTM = \frac{C + \frac{F - P}{n}}{\frac{F + P}{2}}$$

# **Stocks valuation**

$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \frac{D_3}{(1+k)^3} + \frac{D_4}{(1+k)^4} \dots$$

$$P_0 = \frac{D}{K}$$

$$P_0 = \frac{D_1}{k - g} = \frac{D_0 (1 + g)}{k - g}$$

$$P_{t} = \frac{D_{t+1}}{k - g} = \frac{D_{t}(1 + g)}{k - g}$$

# **Covered Interest Parity (CIP)**

$$(1 + i) = \frac{F (1 + i^*)}{E}$$