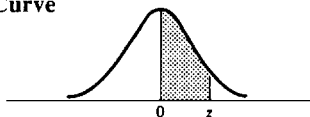


Appendix

TABLE A.1: Areas Under the Standard Normal Curve

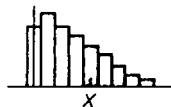


z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.0000	0.0040	0.0080	0.0120	0.0160	0.0199	0.0239	0.0279	0.0319	0.0359
0.1	0.0398	0.0438	0.0478	0.0517	0.0557	0.0596	0.0636	0.0675	0.0714	0.0753
0.2	0.0793	0.0832	0.0871	0.0910	0.0948	0.0987	0.1026	0.1064	0.1103	0.1141
0.3	0.1179	0.1217	0.1255	0.1293	0.1331	0.1368	0.1406	0.1443	0.1480	0.1517
0.4	0.1554	0.1591	0.1628	0.1664	0.1700	0.1736	0.1772	0.1808	0.1844	0.1879
0.5	0.1915	0.1950	0.1985	0.2019	0.2054	0.2088	0.2123	0.2157	0.2190	0.2224
0.6	0.2257	0.2291	0.2324	0.2357	0.2389	0.2422	0.2454	0.2486	0.2517	0.2549
0.7	0.2580	0.2611	0.2642	0.2673	0.2704	0.2734	0.2764	0.2794	0.2823	0.2852
0.8	0.2881	0.2910	0.2939	0.2967	0.2995	0.3023	0.3051	0.3078	0.3106	0.3133
0.9	0.3159	0.3186	0.3212	0.3238	0.3264	0.3289	0.3315	0.3340	0.3365	0.3389
1.0	0.3413	0.3438	0.3461	0.3485	0.3508	0.3531	0.3554	0.3577	0.3599	0.3621
1.1	0.3643	0.3665	0.3686	0.3708	0.3729	0.3749	0.3770	0.3790	0.3810	0.3830
1.2	0.3849	0.3869	0.3888	0.3907	0.3925	0.3944	0.3962	0.3980	0.3997	0.4015
1.3	0.4032	0.4049	0.4066	0.4082	0.4099	0.4115	0.4131	0.4147	0.4162	0.4177
1.4	0.4192	0.4207	0.4222	0.4236	0.4251	0.4265	0.4279	0.4292	0.4306	0.4319
1.5	0.4332	0.4345	0.4357	0.4370	0.4382	0.4394	0.4406	0.4418	0.4429	0.4441
1.6	0.4452	0.4463	0.4474	0.4484	0.4495	0.4505	0.4515	0.4525	0.4535	0.4545
1.7	0.4554	0.4564	0.4573	0.4582	0.4591	0.4599	0.4608	0.4616	0.4625	0.4633
1.8	0.4641	0.4649	0.4656	0.4664	0.4671	0.4678	0.4686	0.4693	0.4699	0.4706
1.9	0.4713	0.4719	0.4726	0.4732	0.4738	0.4744	0.4750	0.4756	0.4761	0.4767
2.0	0.4772	0.4778	0.4783	0.4788	0.4793	0.4798	0.4803	0.4808	0.4812	0.4817
2.1	0.4821	0.4826	0.4830	0.4834	0.4838	0.4842	0.4846	0.4850	0.4854	0.4857
2.2	0.4861	0.4864	0.4868	0.4871	0.4875	0.4878	0.4881	0.4884	0.4887	0.4890
2.3	0.4893	0.4896	0.4898	0.4901	0.4904	0.4906	0.4909	0.4911	0.4913	0.4916
2.4	0.4918	0.4920	0.4922	0.4925	0.4927	0.4929	0.4931	0.4932	0.4934	0.4936
2.5	0.4938	0.4940	0.4941	0.4943	0.4945	0.4946	0.4948	0.4949	0.4951	0.4952
2.6	0.4953	0.4955	0.4956	0.4957	0.4959	0.4960	0.4961	0.4962	0.4963	0.4964
2.7	0.4965	0.4966	0.4967	0.4968	0.4969	0.4970	0.4971	0.4972	0.4973	0.4974
2.8	0.4974	0.4975	0.4976	0.4977	0.4977	0.4978	0.4979	0.4979	0.4980	0.4981
2.9	0.4981	0.4982	0.4982	0.4983	0.4984	0.4984	0.4985	0.4985	0.4986	0.4986
3.0	0.4987	0.4987	0.4987	0.4988	0.4988	0.4989	0.4989	0.4989	0.4990	0.4990

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TABLE A.2: Poisson Distribution

Each number in this table represents the probability of obtaining at least X successes, or the area under the histogram to the right of and including the rectangle whose center is at X .



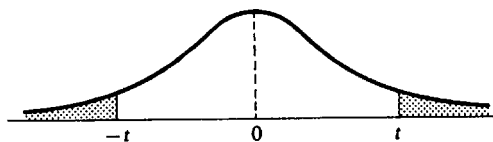
m	$X=0$	$X=1$	$X=2$	$X=3$	$X=4$	$X=5$	$X=6$	$X=7$	$X=8$	$X=9$	$X=10$	$X=11$	$X=12$	$X=13$	$X=14$
.10	1.000	.095	.005												
.20	1.000	.181	.018	.001											
.30	1.000	.259	.037	.004											
.40	1.000	.330	.062	.008	.001										
.50	1.000	.393	.090	.014	.002										
.60	1.000	.451	.122	.023	.003										
.70	1.000	.503	.156	.034	.006	.001									
.80	1.000	.551	.191	.047	.009	.001									
.90	1.000	.593	.228	.063	.013	.002									
1.00	1.000	.632	.264	.080	.019	.004	.001								
1.1	1.000	.667	.301	.100	.026	.005	.001								
1.2	1.000	.699	.337	.120	.034	.008	.002								
1.3	1.000	.727	.373	.143	.043	.011	.002								
1.4	1.000	.753	.408	.167	.054	.014	.003	.001							
1.5	1.000	.777	.442	.191	.066	.019	.004	.001							
1.6	1.000	.798	.475	.217	.079	.024	.006	.001							
1.7	1.000	.817	.507	.243	.093	.030	.008	.002							
1.8	1.000	.835	.537	.269	.109	.036	.010	.003	.001						
1.9	1.000	.850	.566	.296	.125	.044	.013	.003	.001						
2.0	1.000	.865	.594	.323	.143	.053	.017	.005	.001						
2.2	1.000	.889	.645	.377	.181	.072	.025	.007	.002						

TABLE A.2 (continued): Poisson Distribution

2.4	1.000	.909	.692	.430	.221	.096	.036	.012	.003	.001										
2.6	1.000	.926	.733	.482	.264	.123	.049	.017	.005	.001										
2.8	1.000	.939	.769	.531	.308	.152	.065	.024	.008	.002	.001									
3.0	1.000	.950	.801	.577	.353	.185	.084	.034	.012	.004	.001									
3.2	1.000	.959	.829	.620	.397	.219	.105	.045	.017	.006	.002									
3.4	1.000	.967	.853	.660	.442	.256	.129	.058	.023	.008	.003	.001								
3.6	1.000	.973	.874	.697	.485	.294	.156	.073	.031	.012	.004	.001								
3.8	1.000	.978	.893	.731	.527	.332	.184	.091	.040	.016	.006	.002								
4.0	1.000	.982	.908	.762	.567	.371	.215	.111	.051	.021	.008	.003	.001							
4.2	1.000	.985	.922	.790	.605	.410	.247	.133	.064	.028	.011	.004	.001							
4.4	1.000	.988	.934	.815	.641	.449	.280	.156	.079	.036	.015	.006	.002	.001						
4.6	1.000	.990	.944	.837	.674	.487	.314	.182	.095	.045	.020	.008	.003	.001						
4.8	1.000	.992	.952	.857	.706	.524	.349	.209	.113	.056	.025	.010	.004	.001						
5.0	1.000	.993	.960	.875	.735	.560	.384	.238	.133	0.68	.032	.014	.005	.002	.001					

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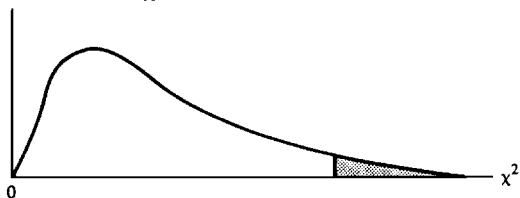
TABLE A.3: t -Distribution



deg. freedom, f	90% ($P = 0.1$)	95% ($P = 0.05$)	99% ($P = 0.01$)
1	6.314	12.706	63.657
2	2.920	4.303	9.925
3	2.353	3.182	5.841
4	2.132	2.776	4.604
5	2.015	2.571	4.032
6	1.943	2.447	3.707
7	1.895	2.365	3.499
8	1.860	2.306	3.355
9	1.833	2.262	3.250
10	1.812	2.228	3.169
11	1.796	2.201	3.106
12	1.782	2.179	3.055
13	1.771	2.160	3.012
14	1.761	2.145	2.977
15	1.753	2.131	2.947
16	1.746	2.120	2.921
17	1.740	2.110	2.898
18	1.734	2.101	2.878
19	1.729	2.093	2.861
20	1.725	2.086	2.845
21	1.721	2.080	2.831
22	1.717	2.074	2.819
23	1.714	2.069	2.807
24	1.711	2.064	2.797
25	1.708	2.060	2.787
26	1.706	2.056	2.779
27	1.703	2.052	2.771
28	1.701	2.048	2.763
29	1.699	2.045	2.756
inf.	1.645	1.960	2.576

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TABLE A.4: χ^2 -Distribution



ν	0.05	0.025	0.01	0.005
1	3.841	5.024	6.635	7.879
2	5.991	7.378	9.210	10.597
3	7.815	9.348	11.345	12.838
4	9.488	11.143	13.277	14.860
5	11.070	12.832	15.086	16.750
6	12.592	14.449	16.812	18.548
7	14.067	16.013	18.475	20.278
8	15.507	17.535	20.090	21.955
9	16.919	19.023	21.666	23.589
10	18.307	20.483	23.209	25.188
11	19.675	21.920	24.725	26.757
12	21.026	23.337	26.217	28.300
13	22.362	24.736	27.688	29.819
14	23.685	26.119	29.141	31.319
15	24.996	27.488	30.578	32.801
16	26.296	28.845	32.000	34.267
17	27.587	30.191	33.409	35.718
18	28.869	31.526	34.805	37.156
19	30.144	32.852	36.191	38.582
20	31.410	34.170	37.566	39.997
21	32.671	35.479	38.932	41.401
22	33.924	36.781	40.289	42.796
23	35.172	38.076	41.638	44.181
24	36.415	39.364	42.980	45.558
25	37.652	40.646	44.314	46.928
26	38.885	41.923	45.642	48.290
27	40.113	43.194	46.963	49.645
28	41.337	44.461	48.278	50.993
29	42.557	45.722	49.588	52.336
30	43.773	46.979	50.892	53.672

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TABLE A.5: Variance Ratio

		$F(95\%)$									
		n_1									
n_2		1	2	3	4	5	6	8	12	24	∞
1	161.4	199.5	215.7	224.6	230.2	234.0	238.9	243.9	249.0	254.3	
2	18.51	19.00	19.16	19.25	19.30	19.33	19.37	19.41	19.45	19.50	
3	10.13	9.55	9.28	9.12	9.01	8.94	8.84	8.74	8.64	8.53	
4	7.71	6.94	6.59	6.39	6.26	6.16	6.04	5.91	5.77	5.63	
5	6.61	5.79	5.41	5.19	5.05	4.95	4.82	4.68	4.53	4.36	
6	5.99	5.14	4.76	4.53	4.39	4.28	4.15	4.00	3.84	3.67	
7	5.59	4.74	4.35	4.12	3.97	3.87	3.73	3.57	3.41	3.23	
8	5.32	4.46	4.07	3.84	3.69	3.58	3.44	3.28	3.12	2.93	
9	5.12	4.26	3.86	3.63	3.48	3.37	3.23	3.07	2.90	2.71	
10	4.96	4.10	3.71	3.48	3.33	3.22	3.07	2.91	2.74	2.54	
11	4.84	3.98	3.59	3.36	3.20	3.09	2.95	2.79	2.61	2.40	
12	4.75	3.88	3.49	3.26	3.11	3.00	2.85	2.69	2.50	2.30	
13	4.67	3.80	3.41	3.18	3.02	2.92	2.77	2.60	2.42	2.21	
14	4.60	3.74	3.34	3.11	2.96	2.85	2.70	2.53	2.35	2.13	
15	4.54	3.68	3.29	3.06	2.90	2.79	2.64	2.48	2.29	2.07	
16	4.49	3.63	3.24	3.01	2.85	2.74	2.59	2.42	2.24	2.01	
17	4.45	3.59	3.20	2.96	2.81	2.70	2.55	2.38	2.19	1.96	
18	4.41	3.55	3.16	2.93	2.77	2.66	2.51	2.34	2.15	1.92	
19	4.38	3.52	3.13	2.90	2.74	2.63	2.48	2.31	2.11	1.88	
20	4.35	3.49	3.10	2.87	2.71	2.60	2.45	2.28	2.08	1.84	
21	4.32	3.47	3.07	2.84	2.68	2.57	2.42	2.25	2.05	1.81	
22	4.30	3.44	3.05	2.82	2.66	2.55	2.40	2.23	2.03	1.78	
23	4.28	3.42	3.03	2.80	2.64	2.53	2.38	2.20	2.00	1.76	
24	4.26	3.40	3.01	2.78	2.62	2.51	2.36	2.18	1.98	1.73	
25	4.24	3.38	2.99	2.76	2.60	2.49	2.34	2.16	1.96	1.71	
26	4.22	3.37	2.98	2.74	2.59	2.47	2.32	2.15	1.95	1.69	
27	4.21	3.35	2.96	2.73	2.57	2.46	2.30	2.13	1.93	1.67	
28	4.20	3.34	2.95	2.71	2.56	2.44	2.29	2.12	1.91	1.65	
29	4.18	3.33	2.93	2.70	2.54	2.43	2.28	2.10	1.90	1.64	
30	4.17	3.32	2.92	2.69	2.53	2.42	2.27	2.09	1.89	1.62	
40	4.08	3.23	2.84	2.61	2.45	2.34	2.18	2.00	1.79	1.51	
60	4.00	3.15	2.76	2.52	2.37	2.25	2.10	1.92	1.70	1.39	
120	3.92	3.07	2.68	2.45	2.29	2.17	2.02	1.83	1.61	1.25	
∞	3.84	2.99	2.60	2.37	2.21	2.10	1.94	1.75	1.52	1.00	

TABLE A.5 (continued): Variance Ratio

		<i>F</i> (99%)									
		<i>n</i> ₁									
<i>n</i> ₂	1	2	3	4	5	6	8	12	24	∞	
1	4.052	4.999	5.403	5.625	5.764	5.859	5.982	6.106	6.234	6.366	
2	98.50	99.00	99.17	99.25	99.30	99.33	99.37	99.42	99.46	99.50	
3	34.12	30.82	29.46	28.71	28.24	27.91	27.49	27.05	26.60	26.12	
4	21.20	18.00	16.69	15.98	15.52	15.21	14.80	14.37	13.93	13.46	
5	16.26	13.27	12.06	11.39	10.97	10.67	10.29	9.89	9.47	9.02	
6	13.74	10.92	9.78	9.15	8.75	8.47	8.10	7.72	7.31	6.88	
7	12.25	9.55	8.45	7.85	7.46	7.19	6.84	6.47	6.07	5.65	
8	11.26	8.65	7.59	7.01	6.63	6.37	6.03	5.67	5.28	4.86	
9	10.56	8.02	6.99	6.42	6.06	5.80	5.47	5.11	4.73	4.31	
10	10.04	7.56	6.55	5.99	5.64	5.39	5.06	4.71	4.33	3.91	
11	9.65	7.20	6.22	5.67	5.32	5.07	4.74	4.40	4.02	3.60	
12	9.33	6.93	5.95	5.41	5.06	4.82	4.50	4.16	3.78	3.36	
13	9.07	6.70	5.74	5.20	4.86	4.62	4.30	3.96	3.59	3.16	
14	8.86	6.51	5.56	5.03	4.69	4.46	4.14	3.80	3.43	3.00	
15	8.68	6.36	5.42	4.89	4.56	4.32	4.00	3.67	3.29	2.87	
16	8.53	6.23	5.29	4.77	4.44	4.20	3.89	3.55	3.18	2.75	
17	8.40	6.11	5.18	4.67	4.34	4.10	3.79	3.45	3.08	2.65	
18	8.28	6.01	5.09	4.58	4.25	4.01	3.71	3.37	3.00	2.57	
19	8.18	5.93	5.01	4.50	4.17	3.94	3.63	3.30	2.92	2.49	
20	8.10	5.85	4.94	4.43	4.10	3.87	3.56	3.23	2.86	2.42	
21	8.02	5.78	4.87	4.37	4.04	3.81	3.51	3.17	2.80	2.36	
22	7.94	5.72	4.82	4.31	3.99	3.76	3.45	3.12	2.75	2.31	
23	7.88	5.66	4.76	4.26	3.94	3.71	3.41	3.07	2.70	2.26	
24	7.82	5.61	4.72	4.22	3.90	3.67	3.36	3.03	2.66	2.21	
25	7.77	5.57	4.68	4.18	3.86	3.63	3.32	2.99	2.62	2.17	
26	7.72	5.53	4.64	4.14	3.82	3.59	3.29	2.96	2.58	2.13	
27	7.68	5.49	4.60	4.11	3.78	3.56	3.26	2.93	2.55	2.10	
28	7.64	5.45	4.57	4.07	3.75	3.53	3.23	2.90	2.52	2.06	
29	7.60	5.42	4.54	4.04	3.73	3.50	3.20	2.87	2.49	2.03	
30	7.56	5.39	4.51	4.02	3.70	3.47	3.17	2.84	2.47	2.01	
40	7.31	5.18	4.31	3.83	3.51	3.29	2.99	2.66	2.29	1.80	
60	7.08	4.98	4.13	3.65	3.34	3.12	2.82	2.50	2.12	1.60	
120	6.85	4.79	3.95	3.48	3.17	2.96	2.66	2.34	1.95	1.38	
∞	6.64	4.60	3.78	3.32	3.02	2.80	2.51	2.18	1.79	1.00	

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**TABLE A.6: Monthly Payments per \$1000
of Loan Value**

Annual Rate (%)	Payment (\$) Monthly	Annual Rate (%)	Payment (\$) Monthly
3-Year Loan			
4.00	29.52	9.500	32.03
4.25	29.64	9.750	32.15
4.50	29.75	10.00	32.27
4.75	29.86	10.25	32.38
5.00	29.97	10.50	32.50
5.25	30.08	10.75	32.62
5.50	30.20	11.00	32.74
5.75	30.31	11.25	32.86
6.00	30.42	11.50	32.98
6.25	30.54	11.75	33.10
6.50	30.65	12.00	33.21
6.75	30.76	12.25	33.33
7.00	30.88	12.50	33.45
7.25	30.99	12.75	33.57
7.50	31.11	13.00	33.69
7.75	31.22	13.25	33.81
8.00	31.34	13.50	33.94
8.25	31.45	13.75	34.06
8.50	31.57	14.00	34.18
8.75	31.68	14.25	34.30
9.00	31.80	14.50	34.42
9.25	31.92	14.75	34.54
		15.00	34.67
5-Year Loan			
4.00	18.42	9.500	21.00
4.25	18.53	9.750	21.12
4.50	18.64	10.00	21.25
4.75	18.76	10.25	21.37
5.00	18.87	10.50	21.49
5.25	18.99	10.75	21.62
5.50	19.10	11.00	21.74
5.75	19.22	11.25	21.87
6.00	19.33	11.50	21.99
6.25	19.45	11.75	22.12
6.50	19.57	12.00	22.24
6.75	19.68	12.25	22.37
7.00	19.80	12.50	22.50
7.25	19.92	12.75	22.63
7.50	20.04	13.00	22.75
7.75	20.16	13.25	22.88
8.00	20.28	13.50	23.01
8.25	20.40	13.75	23.14
8.50	20.52	14.00	23.27
8.75	20.64	14.25	23.40
9.00	20.76	14.50	23.53
9.25	20.88	14.75	23.66
		15.00	23.79

**TABLE A.6: Monthly Payments per \$1000
of Loan Value (continued)**

10-Year Loan			
4.00	10.12	9.500	12.94
4.25	10.24	9.750	13.08
4.50	10.36	10.00	13.22
4.75	10.48	10.25	13.35
5.00	10.61	10.50	13.49
5.25	10.73	10.75	13.63
5.50	10.85	11.00	13.78
5.75	10.98	11.25	13.92
6.00	11.10	11.50	14.06
6.25	11.23	11.75	14.20
6.50	11.35	12.00	14.35
6.75	11.48	12.25	14.49
7.00	11.61	12.50	14.64
7.25	11.74	12.75	14.78
7.50	11.87	13.00	14.93
7.75	12.00	13.25	15.08
8.00	12.13	13.50	15.23
8.25	12.27	13.75	15.38
8.50	12.40	14.00	15.53
8.75	12.53	14.25	15.68
9.00	12.67	14.50	15.83
9.25	12.80	14.75	15.98
		15.00	16.13

15-Year Loan			
4.00	7.39	9.500	10.44
4.25	7.52	9.750	10.59
4.50	7.65	10.00	10.75
4.75	7.78	10.25	10.90
5.00	7.91	10.50	11.05
5.25	8.04	10.75	11.21
5.50	8.17	11.00	11.37
5.75	8.30	11.25	11.52
6.00	8.44	11.50	11.68
6.25	8.57	11.75	11.84
6.50	8.71	12.00	12.00
6.75	8.85	12.25	12.16
7.00	8.99	12.75	12.49
7.50	9.27	13.00	12.65
7.75	9.41	13.25	12.82
8.00	9.56	13.50	12.98
8.25	9.70	13.75	13.15
8.50	9.85	14.00	13.32
8.75	9.99	14.25	13.49
9.00	10.14	14.50	13.66
9.25	10.29	14.75	13.83
		15.00	14.00

**TABLE A.6: Monthly Payments per \$1000
of Loan Value (continued)**

20-Year Loan			
4.00	6.06	9.50	9.32
4.25	6.19	9.75	9.49
4.50	6.33	10.00	9.65
4.75	6.46	10.25	9.82
5.00	6.60	10.50	9.98
5.25	6.74	10.75	10.15
5.50	6.88	11.00	10.32
5.75	7.02	11.25	10.49
6.00	7.16	11.50	10.66
6.25	7.31	11.75	10.84
6.50	7.46	12.00	11.01
6.75	7.60	12.25	11.19
7.00	7.75	12.50	11.36
7.25	7.90	12.75	11.54
7.50	8.06	13.00	11.72
7.75	8.21	13.50	12.07
8.25	8.52	13.75	12.25
8.50	8.68	14.00	12.44
8.75	8.84	14.25	12.62
9.00	9.00	14.50	12.80
9.25	9.16	14.75	12.98
		15.00	13.17

25-Year Loan			
4.00	5.28	9.500	8.74
4.25	5.42	9.750	8.91
4.50	5.56	10.00	9.09
4.75	5.70	10.25	9.26
5.00	5.85	10.50	9.44
5.25	5.99	10.75	9.62
5.50	6.14	11.00	9.80
5.75	6.29	11.25	9.98
6.00	6.44	11.50	10.16
6.25	6.60	11.75	10.35
6.50	6.75	12.00	10.53
6.75	6.91	12.25	10.72
7.00	7.07	12.50	10.90
7.25	7.23	12.75	11.09
7.50	7.39	13.00	11.28
7.75	7.55	13.25	11.47
8.00	7.72	13.50	11.66
8.25	7.88	13.75	11.85
8.50	8.05	14.00	12.04
8.75	8.22	14.25	12.23
9.00	8.39	14.50	12.42
9.25	8.56	14.75	12.61
		15.00	12.81

**TABLE A.6: Monthly Payments per \$1000
of Loan Value (continued)**

30-Year Loan			
4.00	4.77	9.500	8.41
4.25	4.92	9.750	8.59
4.50	5.07	10.00	8.78
4.75	5.22	10.25	8.96
5.00	5.37	10.50	9.15
5.25	5.52	10.75	9.34
5.50	5.68	11.00	9.52
5.75	5.84	11.25	9.71
6.00	6.00	11.50	9.90
6.25	6.16	11.75	10.09
6.50	6.32	12.00	10.29
6.75	6.49	12.25	10.48
7.00	6.65	12.50	10.67
7.25	6.82	12.75	10.87
7.50	6.99	13.00	11.06
7.75	7.16	13.25	11.26
8.00	7.34	13.50	11.45
8.25	7.51	13.75	11.65
8.50	7.69	14.00	11.85
8.75	7.87	14.25	12.05
9.00	8.05	14.50	12.25
9.25	8.23	14.75	12.44
		15.00	12.64

The number of thousands borrowed is multiplied by the listed monthly payment for the indicated annual interest rate. The product is the total monthly payment. Due to rounding this may be off by a few cents from the actual.

TABLE A.7: The Growth of \$1 at Various Annual Interest Rates and Specified Number of Years

Years	3%	4%	5%	6%	7%
1	1.0300	1.0400	1.0500	1.0600	1.0700
2	1.0609	1.0816	1.1025	1.1236	1.1449
3	1.0927	1.1249	1.1576	1.1910	1.2250
4	1.1255	1.1699	1.2155	1.2625	1.3108
5	1.1593	1.2167	1.2763	1.3382	1.4026
6	1.1941	1.2653	1.3401	1.4185	1.5007
7	1.2299	1.3159	1.4071	1.5036	1.6058
8	1.2668	1.3686	1.4775	1.5938	1.7182
9	1.3048	1.4233	1.5513	1.6895	1.8385
10	1.3439	1.4802	1.6289	1.7908	1.9672
11	1.3842	1.5395	1.7103	1.8983	2.1049
12	1.4258	1.6010	1.7959	2.0122	2.2522
13	1.4685	1.6651	1.8856	2.1329	2.4098
14	1.5126	1.7317	1.9799	2.2609	2.5785
15	1.5580	1.8009	2.0789	2.3966	2.7590
20	1.8061	2.1911	2.6533	3.2071	3.8697
25	2.0938	2.6658	3.3864	4.2919	5.4274
30	2.4273	3.2434	4.3219	5.7435	7.6123
35	2.8139	3.9461	5.5160	7.6861	10.677
40	3.2620	4.8010	7.0400	10.286	14.974
45	3.7816	5.8412	8.9850	13.765	21.002
50	4.3839	7.1067	11.467	18.420	29.457
Years	8%	9%	10%	11%	12%
1	1.0800	1.0900	1.1000	1.1100	1.1200
2	1.1664	1.1881	1.2100	1.2321	1.2544
3	1.2597	1.2950	1.3310	1.3676	1.4049
4	1.3605	1.4116	1.4641	1.5181	1.5735
5	1.4693	1.5386	1.6105	1.6851	1.7623
6	1.5869	1.6771	1.7716	1.8704	1.9738
7	1.7138	1.8280	1.9487	2.0762	2.2107
8	1.8509	1.9926	2.1436	2.3045	2.4760
9	1.9990	2.1719	2.3579	2.5580	2.7731
10	2.1589	2.3674	2.5937	2.8394	3.1058
11	2.3316	2.5804	2.8531	3.1518	3.4785
12	2.5182	2.8127	3.1384	3.4985	3.8960
13	2.7196	3.0658	3.4523	3.8833	4.3635
14	2.9372	3.3417	3.7975	4.3104	4.8871
15	3.1722	3.6425	4.1772	4.7846	5.4736
20	4.6610	5.6044	6.7275	8.0623	9.6463
25	6.8485	8.6231	10.835	13.585	17.000
30	10.063	13.268	17.449	22.892	29.960
35	14.785	20.414	28.102	38.575	52.800
40	21.725	31.409	45.259	65.001	93.051
45	31.920	48.327	72.890	109.53	163.99
50	46.902	74.358	117.39	184.56	289.00

TABLE A.8: Doubling Time for Various Annual Interest Rates

Rate (%)	Years
1	69.7
2	35.0
3	23.4
4	17.7
5	14.2
6	11.9
7	10.2
8	9.01
9	8.04
10	7.27
11	6.64
12	6.12
13	5.67
14	5.29
15	4.96

TABLE A.9: Monthly Savings to Produce \$1000 in the Specified Number of Years at the Given Annual Interest Rate (Compounded Monthly)

Years	3%	4%	5%	6%	7%
1	82.19	81.82	81.44	81.07	80.69
2	40.48	40.09	39.70	39.32	38.94
3	26.58	26.19	25.80	25.42	25.04
4	19.63	19.25	18.86	18.49	18.11
5	15.47	15.08	14.70	14.33	13.97
6	12.69	12.31	11.94	11.57	11.22
7	10.71	10.34	9.97	9.61	9.26
8	9.23	8.85	8.49	8.14	7.80
9	8.08	7.71	7.35	7.01	6.67
10	7.16	6.79	6.44	6.10	5.78
15	4.41	4.06	3.74	3.44	3.16
20	3.05	2.73	2.43	2.16	1.92
25	2.24	1.94	1.68	1.44	1.23
30	1.72	1.44	1.20	0.99	0.82
35	1.35	1.09	0.88	0.71	0.56
40	1.08	0.85	0.66	0.50	0.38
Years	8%	9%	10%	11%	12%
1	80.32	79.95	79.58	79.21	78.85
2	38.56	38.18	37.81	37.44	37.07
3	24.67	24.30	23.93	23.57	23.21
4	17.75	17.39	17.03	16.68	16.33
5	13.61	13.26	12.91	12.58	12.24
6	10.87	10.53	10.19	9.87	9.55
7	8.92	8.59	8.27	7.96	7.65
8	7.47	7.15	6.84	6.54	6.25
9	6.35	6.04	5.74	5.46	5.18
10	5.47	5.17	4.88	4.61	4.35
15	2.89	2.64	2.41	2.20	2.00
20	1.70	1.50	1.32	1.16	1.01
25	1.05	0.89	0.75	0.63	0.53
30	0.67	0.55	0.44	0.36	0.29
35	0.44	0.34	0.26	0.20	0.16
40	0.29	0.21	0.16	0.12	0.08

**TABLE A.10: Monthly Savings to Produce \$1000
in Specified Number of Years at the Given Annual
Interest Rate (Compounded Annually)**

Years	3%	4%	5%	6%	7%
1	83.33	83.33	83.33	83.33	83.33
2	41.05	40.85	40.65	40.45	40.26
3	26.96	26.70	26.43	26.18	25.92
4	19.92	19.62	19.33	19.05	18.77
5	15.70	15.39	15.08	14.78	14.49
6	12.88	12.56	12.25	11.95	11.65
7	10.88	10.55	10.23	9.93	9.63
8	9.37	9.04	8.73	8.42	8.12
9	8.20	7.87	7.56	7.25	6.96
10	7.27	6.94	6.62	6.32	6.03
15	4.48	4.16	3.86	3.58	3.32
20	3.10	2.80	2.52	2.26	2.03
25	2.29	2.00	1.75	1.52	1.32
30	1.75	1.49	1.25	1.05	0.88
35	1.38	1.13	0.92	0.75	0.60
40	1.10	0.88	0.69	0.54	0.42
Years	8%	9%	10%	11%	12%
1	83.33	83.33	83.33	83.33	83.33
2	40.06	39.87	39.68	39.49	39.31
3	25.67	25.42	25.18	24.93	24.70
4	18.49	18.22	17.96	17.69	17.44
5	14.20	13.92	13.65	13.38	13.12
6	11.36	11.08	10.80	10.53	10.27
7	9.34	9.06	8.78	8.52	8.26
8	7.83	7.56	7.29	7.03	6.78
9	6.67	6.40	6.14	5.88	5.64
10	5.75	5.48	5.23	4.98	4.75
15	3.07	2.84	2.62	2.42	2.23
20	1.82	1.63	1.45	1.30	1.16
25	1.14	0.98	0.88	0.73	0.63
30	0.74	0.61	0.51	0.42	0.35
35	0.48	0.39	0.31	0.24	0.19
40	0.32	0.25	0.19	0.14	0.11

TABLE A.11: Percentage of Funds That May Be Withdrawn Each Year at the Beginning of the Year at Different Annual Interest Rates

Years	4%	5%	6%	7%	8%
1	100.000	100.000	100.000	100.000	100.000
2	50.980	51.220	51.456	51.691	51.923
3	34.649	34.972	35.293	35.612	35.929
4	26.489	26.858	27.226	27.591	27.956
5	21.599	21.998	22.396	22.794	23.190
6	18.343	18.764	19.185	19.607	20.029
7	16.020	16.459	16.900	17.341	17.784
8	14.282	14.735	15.192	15.651	16.112
9	12.932	13.399	13.870	14.345	14.822
10	11.855	12.334	12.818	13.306	13.799
15	8.6482	9.1755	9.7135	10.261	10.818
20	7.0752	7.6422	8.2250	8.8218	9.4308
25	6.1550	6.7574	7.3799	8.0197	8.6740
30	5.5606	6.1954	6.8537	7.5314	8.2248
35	5.1517	5.8164	6.5070	7.2181	7.9447
40	4.8580	5.5503	6.2700	7.0102	7.7648
45	4.6406	5.3583	6.1038	6.8691	7.6470
50	4.4760	5.2168	5.9853	6.7719	7.5688
Years	9%	10%	11%	12%	13%
1	100.000	100.000	100.000	100.000	100.000
2	52.153	52.381	52.607	52.830	53.052
3	36.244	36.556	36.866	37.174	37.480
4	28.318	28.679	29.038	29.396	29.752
5	23.586	23.982	24.376	24.769	25.161
6	20.451	20.873	21.295	21.717	22.137
7	18.228	18.673	19.118	19.564	20.010
8	16.576	17.040	17.506	17.973	18.441
9	15.303	15.786	16.270	16.757	17.245
10	14.295	14.795	15.297	15.802	16.309
15	11.382	11.952	12.528	13.109	13.694
20	10.050	10.678	11.313	11.953	12.598
25	9.3400	10.015	10.697	11.384	12.073
30	8.9299	9.6436	10.363	11.084	11.806
35	8.6822	9.4263	10.174	10.921	11.666
40	8.5284	9.2963	10.065	10.831	11.592
45	8.4313	9.2174	10.001	10.780	11.552
50	8.3694	9.1690	9.9639	10.751	11.530

TABLE A.12: Growth of Annual Deposits of \$1,000 at the End of the Year at Specified Annual Interest Rates

Years	6%	8%	10%
1	1000	1000	1000
2	2060	2080	2100
3	3183.60	3246.4	3310
4	4374.62	4506.11	4641
5	5637.09	5866.60	6105.11
6	6975.32	7335.93	7715.61
7	8393.84	8922.80	9487.17
8	9897.47	10636.63	11435.89
9	11491.32	12487.56	13579.48
10	13180.79	14486.56	15937.42
11	14971.64	16645.49	18531.17
12	16869.94	18977.13	21384.28
13	18882.14	21495.30	24522.71
14	21015.07	24214.92	27974.98
15	23275.97	27152.11	31772.48
20	36785.59	45761.96	57275.00
25	54864.51	73105.94	98347.06
30	79058.19	113283.21	164494.02
35	111434.78	172316.8	271024.38
40	154761.97	259056.52	442592.56

TABLE A.13: Growth of Annual Deposits of \$1,000 at the Beginning of the Year at Specified Annual Interest Rates

Years	6%	8%	10%
1	1060.00	1080.00	1100.00
2	2183.60	2246.40	2310.00
3	3374.62	3506.11	3641.00
4	4637.09	4866.60	5105.10
5	5975.32	6335.93	6715.61
6	7393.84	7922.80	8487.17
7	8897.47	9636.63	10435.89
8	10491.32	11487.56	12579.48
9	12180.79	13486.56	14937.42
10	13971.64	15645.49	17531.17
11	15869.94	17977.13	20384.28
12	17882.14	20495.30	23522.71
13	20015.07	23214.92	26974.98
14	22275.97	26152.11	30772.48
15	24672.53	29324.28	34949.73
20	38992.73	49422.92	63002.50
25	58156.38	78934.41	108181.77
30	83801.68	122345.87	180943.42
35	118120.87	186102.14	298126.81
40	164047.69	279781.03	486851.81

TABLE A.14: Monthly Amount That Must Be Saved for the Years Indicated (down) in Order to Collect \$1,000 Per Month Thereafter (across) at 4% Annual Interest Compounded Monthly

Years Saving	Years Collecting				
	5	10	15	20	25
5	819.00	1489.80	2039.10	2489.10	2857.50
10	368.75	670.77	918.11	1120.69	1286.61
15	220.65	401.36	549.36	670.57	769.85
20	148.04	269.29	368.60	449.93	516.54
25	105.61	192.11	262.95	320.97	368.49
30	78.24	142.31	194.79	237.77	272.97
35	59.43	108.10	147.96	180.60	207.34
40	45.94	83.56	114.38	139.62	160.29

TABLE A.15: Monthly Amount That Must Be Saved for the Years Indicated (down) in Order to Collect \$1,000 Per Month Thereafter (across) at 6% Annual Interest Compounded Monthly

Years Saving	Years Collecting				
	5	10	15	20	25
5	741.37	1291.00	1698.50	2000.60	2224.55
10	315.63	549.63	723.11	851.73	947.08
15	177.86	309.72	407.48	479.96	533.69
20	111.95	194.95	256.48	302.10	335.92
25	74.64	129.98	171.00	201.42	223.97
30	51.49	89.67	117.97	138.95	154.51
35	36.31	63.22	83.18	97.97	108.94
40	25.97	45.23	59.50	70.09	77.94

TABLE A.16: Monthly Amount That Must Be Saved for the Years Indicated (down) in Order to Collect \$1,000 Per Month Thereafter (across) at 8% Annual Interest Compounded Monthly

Years Saving	Years Collecting				
	5	10	15	20	25
5	671.21	1121.73	1424.13	1627.10	1763.34
10	269.58	450.52	571.98	653.49	708.21
15	142.52	238.19	302.40	345.49	374.42
20	83.73	139.93	177.65	202.97	219.97
25	51.86	86.67	110.03	125.71	136.24
30	33.09	55.30	70.21	80.22	86.94
35	21.50	35.93	45.62	52.12	56.48
40	14.13	23.61	29.97	34.25	37.11

TABLE A.17: Monthly Amount That Must Be Saved for the Years Indicated (down) in Order to Collect \$1,000 Per Month Thereafter (across) at 10% Annual Interest Compounded Monthly

Years Saving	Years Collecting				
	5	10	15	20	25
5	607.79	977.20	1201.72	1338.18	1421.12
10	229.76	369.41	454.28	505.87	537.22
15	113.56	182.57	224.52	250.02	265.51
20	61.98	99.65	122.55	136.46	144.92
25	35.47	57.03	70.13	78.10	82.94
30	20.82	33.48	41.17	45.84	48.68
35	12.40	19.93	24.51	27.29	28.99
40	7.44	11.97	14.71	16.39	17.40