

COMPOUND INTEREST TABLES AND FORMULAE

TABLE I-1: Present value of 1: (P/F, *i*, *n*)

$$P/F = \frac{1}{(1 + i)^n}$$

<i>n</i>	2%	2.5%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	14%	15%
1	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286	0.87719	0.86957
2	0.96117	0.95181	0.94260	0.92456	0.90703	0.89000	0.87344	0.85734	0.84168	0.82645	0.81162	0.79719	0.76947	0.75614
3	0.94232	0.92860	0.91514	0.88900	0.86384	0.83962	0.81630	0.79383	0.77218	0.75131	0.73119	0.71178	0.67497	0.65752
4	0.92385	0.90595	0.88849	0.85480	0.82270	0.79209	0.76290	0.73503	0.70843	0.68301	0.65873	0.63552	0.59208	0.57175
5	0.90573	0.88385	0.86261	0.82193	0.78353	0.74726	0.71299	0.68058	0.64993	0.62092	0.59345	0.56743	0.51937	0.49718
6	0.88797	0.86230	0.83748	0.79031	0.74622	0.70496	0.66634	0.63017	0.59627	0.56447	0.53464	0.50663	0.45559	0.43233
7	0.87056	0.84127	0.81309	0.75992	0.71068	0.66506	0.62275	0.58349	0.54703	0.51316	0.48166	0.45235	0.39964	0.37594
8	0.85349	0.82075	0.78941	0.73069	0.67684	0.62741	0.58201	0.54027	0.50187	0.46651	0.43393	0.40388	0.35056	0.32690
9	0.83676	0.80073	0.76642	0.70259	0.64461	0.59190	0.54393	0.50025	0.46043	0.42410	0.39092	0.36061	0.30751	0.28426
10	0.82035	0.78120	0.74409	0.67556	0.61391	0.55839	0.50835	0.46319	0.42241	0.38554	0.35218	0.32197	0.26974	0.24718
11	0.80426	0.76214	0.72242	0.64958	0.58468	0.52679	0.47509	0.42888	0.38753	0.35049	0.31728	0.28748	0.23662	0.21494
12	0.78849	0.74356	0.70138	0.62460	0.55684	0.49697	0.44401	0.39711	0.35553	0.31863	0.28584	0.25668	0.20756	0.18691
13	0.77303	0.72542	0.68095	0.60057	0.53032	0.46884	0.41496	0.36770	0.32618	0.28966	0.25751	0.22917	0.18207	0.16253
14	0.75788	0.70773	0.66112	0.57748	0.50507	0.44230	0.38782	0.34046	0.29925	0.26333	0.23199	0.20462	0.15971	0.14133
15	0.74301	0.69047	0.64186	0.55526	0.48102	0.41727	0.36245	0.31524	0.27454	0.23939	0.20900	0.18270	0.14010	0.12289
16	0.72845	0.67362	0.62317	0.53391	0.45811	0.39365	0.33873	0.29189	0.25187	0.21763	0.18829	0.16312	0.12289	0.10686
17	0.71416	0.65720	0.60502	0.51337	0.43630	0.37136	0.31657	0.27027	0.23107	0.19784	0.16963	0.14564	0.10780	0.09293
18	0.70016	0.64117	0.58739	0.49363	0.41552	0.35034	0.29586	0.25025	0.21199	0.17986	0.15282	0.13004	0.09456	0.08081
19	0.68643	0.62553	0.57029	0.47464	0.39573	0.33051	0.27651	0.23171	0.19449	0.16351	0.13768	0.11611	0.08295	0.07027
20	0.67297	0.61027	0.55368	0.45639	0.37689	0.31180	0.25842	0.21455	0.17843	0.14864	0.12403	0.10367	0.07276	0.06110
21	0.65978	0.59539	0.53755	0.43883	0.35894	0.29416	0.24151	0.19866	0.16370	0.13513	0.11174	0.09256	0.06383	0.05313
22	0.64684	0.58086	0.52189	0.42196	0.34185	0.27751	0.22571	0.18394	0.15018	0.12285	0.10067	0.08264	0.05599	0.04620
23	0.63416	0.56670	0.50669	0.40573	0.32557	0.26180	0.21095	0.17032	0.13778	0.11168	0.09069	0.07379	0.04911	0.04017
24	0.62172	0.55288	0.49193	0.39012	0.31007	0.24698	0.19715	0.15770	0.12640	0.10153	0.08170	0.06588	0.04308	0.03493
25	0.60953	0.53939	0.47761	0.37512	0.29530	0.23300	0.18425	0.14602	0.11597	0.09230	0.07361	0.05882	0.03779	0.03038
26	0.59758	0.52623	0.46369	0.36069	0.28124	0.21981	0.17220	0.13520	0.10639	0.08391	0.06631	0.05252	0.03315	0.02642
27	0.58586	0.51340	0.45019	0.34682	0.26785	0.20737	0.16093	0.12519	0.09761	0.07628	0.05974	0.04689	0.02908	0.02297
28	0.57437	0.50088	0.43708	0.33348	0.25509	0.19563	0.15040	0.11591	0.08955	0.06934	0.05382	0.04187	0.02551	0.01997
29	0.56311	0.48866	0.42435	0.32065	0.24295	0.18456	0.14056	0.10733	0.08215	0.06304	0.04849	0.03738	0.02237	0.01737
30	0.55207	0.47674	0.41199	0.30832	0.23138	0.17411	0.13137	0.09938	0.07537	0.05731	0.04368	0.03338	0.01963	0.01510
31	0.54125	0.46511	0.39999	0.29646	0.22036	0.16425	0.12277	0.09202	0.06915	0.05210	0.03935	0.02980	0.01722	0.01313
32	0.53063	0.45377	0.38834	0.28506	0.20987	0.15496	0.11474	0.08520	0.06344	0.04736	0.03545	0.02661	0.01510	0.01142
33	0.52023	0.44270	0.37703	0.27409	0.19987	0.14619	0.10723	0.07889	0.05820	0.04306	0.03194	0.02376	0.01325	0.00993
34	0.51003	0.43191	0.36604	0.26355	0.19035	0.13791	0.10022	0.07305	0.05339	0.03914	0.02878	0.02121	0.01162	0.00864
35	0.50003	0.42137	0.35538	0.25342	0.18129	0.13011	0.09366	0.06763	0.04899	0.03558	0.02592	0.01894	0.01019	0.00751
36	0.49022	0.41109	0.34503	0.24367	0.17266	0.12274	0.08754	0.06262	0.04494	0.03235	0.02335	0.01691	0.00894	0.00653
37	0.48061	0.40107	0.33498	0.23430	0.16444	0.11579	0.08181	0.05799	0.04123	0.02941	0.02104	0.01510	0.00784	0.00568
38	0.47119	0.39128	0.32523	0.22529	0.15661	0.10924	0.07646	0.05369	0.03783	0.02673	0.01896	0.01348	0.00688	0.00494
39	0.46195	0.38174	0.31575	0.21662	0.14915	0.10306	0.07146	0.04971	0.03470	0.02430	0.01708	0.01204	0.00604	0.00429
40	0.45289	0.37243	0.30656	0.20829	0.14205	0.09722	0.06678	0.04603	0.03184	0.02209	0.01538	0.01075	0.00529	0.00373
45	0.41020	0.32917	0.26444	0.17120	0.11130	0.07265	0.04761	0.03133	0.02069	0.01372	0.00913	0.00610	0.00275	0.00186
50	0.37153	0.29094	0.22811	0.14071	0.08720	0.05429	0.03395	0.02132	0.01345	0.00852	0.00542	0.00346	0.00143	0.00092

TABLE I-2: Present value of an ordinary annuity of n payments of 1: $(P/A, i, n)$

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

n	2%	2.5%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	14%	15%
1	0.98039	0.97561	0.97087	0.96154	0.95238	0.94340	0.93458	0.92593	0.91743	0.90909	0.90090	0.89286	0.87719	0.86957
2	1.94156	1.92742	1.91347	1.88609	1.85941	1.83339	1.80802	1.78326	1.75911	1.73554	1.71252	1.69005	1.64666	1.62571
3	2.88388	2.85602	2.82861	2.77509	2.72325	2.67301	2.62432	2.57710	2.53129	2.48685	2.44371	2.40183	2.32163	2.28323
4	3.80773	3.76197	3.71710	3.62990	3.54595	3.46511	3.38721	3.31213	3.23972	3.16987	3.10245	3.03735	2.91371	2.85498
5	4.71346	4.64583	4.57971	4.45182	4.32948	4.21236	4.10020	3.99271	3.88965	3.79079	3.69590	3.60478	3.43308	3.35216
6	5.60143	5.50813	5.41719	5.24214	5.07569	4.91732	4.76654	4.62288	4.48592	4.35526	4.23054	4.1141	3.88867	3.78448
7	6.47199	6.34939	6.23028	6.00205	5.78637	5.58238	5.38929	5.20637	5.03295	4.86842	4.71220	4.56376	4.28830	4.16042
8	7.32548	7.17014	7.01969	6.73274	6.46321	6.20979	5.97130	5.74664	5.53482	5.33493	5.14612	4.96764	4.63886	4.48732
9	8.16224	7.97087	7.78611	7.43533	7.10782	6.80169	6.51523	6.24689	5.99525	5.75902	5.53705	5.32825	4.94637	4.77158
10	8.98259	8.75206	8.53020	8.11090	7.72173	7.36009	7.02358	6.71008	6.41766	6.14457	5.88923	5.65022	5.21612	5.01877
11	9.78685	9.51421	9.25262	8.76048	8.30641	7.88687	7.49867	7.13896	6.80519	6.49506	6.20652	5.93770	5.45273	5.23371
12	10.57534	10.25776	9.95400	9.38507	8.86325	8.38384	7.94269	7.53608	7.16073	6.81369	6.49236	6.19437	5.66029	5.42062
13	11.34837	10.98318	10.63496	9.98565	9.39357	8.85268	8.35765	7.90378	7.48690	7.10336	6.74987	6.42355	5.84236	5.58315
14	12.10625	11.69091	11.29607	10.56312	9.89864	9.29498	8.74547	8.24424	7.78615	7.36669	6.98187	6.62817	6.00207	5.72448
15	12.84926	12.38138	11.93794	11.11839	10.37966	9.71225	9.10791	8.55948	8.06069	7.60608	7.19087	6.81086	6.14217	5.84737
16	13.57771	13.05500	12.56110	11.65230	10.83777	10.10590	9.44665	8.85137	8.31256	7.82371	7.37916	6.97399	6.26506	5.95423
17	14.29187	13.71220	13.16612	12.16567	11.27407	10.47726	9.76322	9.12164	8.54363	8.02155	7.54879	7.11963	6.37286	6.04716
18	14.99203	14.35336	13.75351	12.65930	11.68959	10.82760	10.05909	9.37189	8.75563	8.20141	7.70162	7.24967	6.46742	6.12797
19	15.67846	14.97889	14.32380	13.13394	12.08532	11.15812	10.33560	9.60360	8.95011	8.36492	7.83929	7.36578	6.55037	6.19823
20	16.35143	15.58916	14.87747	13.59033	12.46221	11.46992	10.59401	9.81815	9.12855	8.51356	7.96333	7.46944	6.62313	6.25933
21	17.01121	16.18455	15.41502	14.02916	12.82115	11.76408	10.83553	10.01680	9.29224	8.64869	8.07507	7.56200	6.68696	6.31246
22	17.65805	16.76541	15.93692	14.45112	13.16300	12.04158	11.06124	10.20074	9.44243	8.77154	8.17574	7.64465	6.74294	6.35866
23	18.29220	17.33211	16.44361	14.85684	13.48857	12.30338	11.27219	10.37106	9.58021	8.88322	8.26643	7.71843	6.79206	6.39884
24	18.91393	17.88499	16.93554	15.24696	13.79864	12.55036	11.46933	10.52876	9.70661	8.98474	8.34814	7.78432	6.83514	6.43377
25	19.52346	18.42438	17.41315	15.62208	14.09394	12.78336	11.65358	10.67478	9.82258	9.07704	8.42174	7.84314	6.87293	6.46415
26	20.12104	18.95061	17.87684	15.98277	14.37519	13.00317	11.82578	10.80998	9.92897	9.16095	8.48806	7.89566	6.90608	6.49056
27	20.70690	19.46401	18.32703	16.32959	14.64303	13.21053	11.98671	10.93516	10.02658	9.23722	8.54780	7.94255	6.93515	6.51353
28	21.28127	19.96489	18.76411	16.66306	14.89813	13.40616	12.13711	11.05108	10.11613	9.30657	8.60162	7.98442	6.96066	6.53351
29	21.84438	20.45355	19.18845	16.98371	15.14107	13.59072	12.27767	11.15841	10.19828	9.36961	8.65011	8.02181	6.98304	6.55088
30	22.39646	20.93029	19.60044	17.29203	15.37245	13.76483	12.40904	11.25778	10.27365	9.42691	8.69379	8.05518	7.00266	6.56598
31	22.93770	21.39541	20.00043	17.58849	15.59281	13.92909	12.53181	11.34980	10.34280	9.47901	8.73315	8.08499	7.01988	6.57911
32	23.46833	21.84918	20.38877	17.87355	15.80268	14.08404	12.64656	11.43500	10.40624	9.52638	8.76860	8.11159	7.03498	6.59053
33	23.98856	22.29188	20.76579	18.14765	16.00255	14.23023	12.75379	11.51389	10.46444	9.56943	8.80054	8.13535	7.04823	6.60046
34	24.49859	22.72379	21.13184	18.41120	16.19290	14.36814	12.85401	11.58693	10.51784	9.60857	8.82932	8.15656	7.05985	6.60910
35	24.99862	23.14516	21.48722	18.66461	16.37419	14.49825	12.94767	11.65457	10.56682	9.64416	8.85524	8.17550	7.07005	6.61661
36	25.48884	23.55625	21.83225	18.90828	16.54685	14.62099	13.03521	11.71719	10.61176	9.67651	8.87859	8.19241	7.07899	6.62314
37	25.96945	23.95732	22.16724	19.14258	16.71129	14.73678	13.11702	11.77518	10.65299	9.70592	8.89963	8.20751	7.08683	6.62881
38	26.44064	24.34860	22.49246	19.36786	16.86789	14.84602	13.19347	11.82887	10.69082	9.73265	8.91859	8.22099	7.09371	6.63375
39	26.90259	24.73034	22.80822	19.58448	17.01704	14.94907	13.26493	11.87858	10.72552	9.75696	8.93567	8.23303	7.09975	6.63805
40	27.35548	25.10278	23.11477	19.79277	17.15909	15.04630	13.33171	11.92461	10.75736	9.77905	8.95105	8.24378	7.10504	6.64178
45	29.49016	26.83302	24.51871	20.72004	17.77407	15.45583	13.60552	12.10840	10.88120	9.86281	9.00791	8.28252	7.12322	6.65429
50	31.42361	28.36231	25.72976	21.48218	18.25593	15.76186	13.80075	12.23348	10.96168	9.91481	9.04165	8.30450	7.13266	6.66051

TABLE I-3: Present value of an annuity due of n payments of 1: (P/AD, i , n)

$$P/AD = \left[\frac{1 - \frac{1}{(1+i)^n}}{i} \right] \times (1+i)$$

n	2%	2.5%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	14%	15%
1	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
2	1.98039	1.97561	1.97087	1.96154	1.95238	1.94340	1.93458	1.92593	1.91743	1.90909	1.90090	1.89286	1.87719	1.86957
3	2.94156	2.92742	2.91347	2.88609	2.85941	2.83339	2.80802	2.78326	2.75911	2.73554	2.71252	2.69005	2.64666	2.62571
4	3.88388	3.85602	3.82861	3.77509	3.72325	3.67301	3.62432	3.57710	3.53129	3.48685	3.44371	3.40183	3.32163	3.28323
5	4.80773	4.76197	4.71710	4.62990	4.54595	4.46511	4.38721	4.31213	4.23972	4.16987	4.10245	4.03735	3.91371	3.85498
6	5.71346	5.64583	5.57971	5.45182	5.32948	5.21236	5.10020	4.99271	4.88965	4.79079	4.69590	4.60478	4.43308	4.35216
7	6.60143	6.50813	6.41719	6.24214	6.07569	5.91732	5.76654	5.62288	5.48592	5.35526	5.23054	5.1141	4.88867	4.78448
8	7.47199	7.34939	7.23028	7.00205	6.78637	6.58238	6.38929	6.20637	6.03295	5.86842	5.71220	5.56376	5.28830	5.16042
9	8.32548	8.17014	8.01969	7.73274	7.46321	7.20979	6.97130	6.74664	6.53482	6.33493	6.14612	5.96764	5.63886	5.48732
10	9.16224	8.97087	8.78611	8.43533	8.10782	7.80169	7.51523	7.24689	6.99525	6.75902	6.53705	6.32825	5.94637	5.77158
11	9.98259	9.75206	9.53020	9.11090	8.72173	8.36009	8.02358	7.71008	7.41766	7.14457	6.88923	6.65022	6.21612	6.01877
12	10.78685	10.51421	10.25262	9.76048	9.30641	8.88687	8.49867	8.13896	7.80519	7.49506	7.20652	6.93770	6.45273	6.23371
13	11.57534	11.25776	10.95400	10.38507	9.86325	9.38384	8.94269	8.53608	8.16073	7.81369	7.49236	7.19437	6.66029	6.42062
14	12.34837	11.98318	11.63496	10.98565	10.39357	9.85268	9.35765	8.90378	8.48690	8.10336	7.74987	7.42355	6.84236	6.58315
15	13.10625	12.69091	12.29607	11.56312	10.89864	10.29498	9.74547	9.24424	8.78615	8.36669	7.98187	7.62817	7.00207	6.72448
16	13.84926	13.38138	12.93794	12.11839	11.37966	10.71225	10.10791	9.55948	9.06069	8.60608	8.19087	7.81086	7.14217	6.84737
17	14.57771	14.05500	13.56110	12.65230	11.83777	11.10590	10.44665	9.85137	9.31256	8.82371	8.37916	7.97399	7.26506	6.95423
18	15.29187	14.71220	14.16612	13.16567	12.27407	11.47726	10.76322	10.12164	9.54363	9.02155	8.54879	8.11963	7.37286	7.04716
19	15.99203	15.35336	14.75351	13.65930	12.68959	11.82760	11.05909	10.37189	9.75563	9.20141	8.70162	8.24967	7.46742	7.12797
20	16.67846	15.97889	15.32380	14.13394	13.08532	12.15812	11.33560	10.60360	9.95011	9.36492	8.83929	8.36578	7.55037	7.19823
21	17.35143	16.58916	15.87747	14.59033	13.46221	12.46992	11.59401	10.81815	10.12855	9.51356	8.96333	8.46944	7.62313	7.25933
22	18.01121	17.18455	16.41502	15.02916	13.82115	12.76408	11.83553	11.01680	10.29224	9.64869	9.07507	8.56200	7.68696	7.31246
23	18.65805	17.76541	16.93692	15.45112	14.16300	13.04158	12.06124	11.20074	10.44243	9.77154	9.17574	8.64465	7.74294	7.35866
24	19.29220	18.33211	17.44361	15.85684	14.48857	13.30338	12.27219	11.37106	10.58021	9.88322	9.26643	8.71843	7.79206	7.39884
25	19.91393	18.88499	17.93554	16.24696	14.79864	13.55036	12.46933	11.52876	10.70661	9.98474	9.34814	8.78432	7.83514	7.43377
26	20.52346	19.42438	18.41315	16.62208	15.09394	13.78336	12.65358	11.67478	10.82258	10.07704	9.42174	8.84314	7.87293	7.46415
27	21.12104	19.95061	18.87684	16.98277	15.37519	14.00317	12.82578	11.80998	10.92897	10.16095	9.48806	8.89566	7.90608	7.49056
28	21.70690	20.46401	19.32703	17.32959	15.64303	14.21053	12.98671	11.93516	11.02658	10.23722	9.54780	8.94255	7.93515	7.51353
29	22.28127	20.96489	19.76411	17.66306	15.89813	14.40616	13.13711	12.05108	11.1613	10.30657	9.60162	8.98442	7.96066	7.53351
30	22.84438	21.45355	20.18845	17.98371	16.14107	14.59072	13.27767	12.15841	11.19828	10.36961	9.65011	9.02181	7.98304	7.55088
31	23.39646	21.93029	20.60044	18.29203	16.37245	14.76483	13.40904	12.25778	11.27365	10.42691	9.69379	9.05518	8.00266	7.56598
32	23.93770	22.39541	21.00043	18.58849	16.59281	14.92909	13.53181	12.34980	11.34280	10.47901	9.73315	9.08499	8.01988	7.57911
33	24.46833	22.84918	21.38877	18.87355	16.80268	15.08404	13.64656	12.43500	11.40624	10.52638	9.76860	9.11159	8.03498	7.59053
34	24.98856	23.29188	21.76579	19.14765	17.00255	15.23023	13.75379	12.51389	11.46444	10.56943	9.80054	9.13535	8.04823	7.60046
35	25.49859	23.72379	22.13184	19.41120	17.19290	15.36814	13.85401	12.58693	11.51784	10.60857	9.82932	9.15656	8.05985	7.60910
36	25.99862	24.14516	22.48722	19.66461	17.37419	15.49825	13.94767	12.65457	11.56682	10.64416	9.85524	9.17550	8.07005	7.61661
37	26.48884	24.55625	22.83225	19.90828	17.54685	15.62099	14.03521	12.71719	11.61176	10.67651	9.87859	9.19241	8.07899	7.62314
38	26.96945	24.95732	23.16724	20.14258	17.71129	15.73678	14.11702	12.77518	11.65299	10.70592	9.89963	9.20751	8.08683	7.62881
39	27.44064	25.34860	23.49246	20.36786	17.86789	15.84602	14.19347	12.82887	11.69082	10.73265	9.91859	9.22099	8.09371	7.63375
40	27.90259	25.73034	23.80822	20.58448	18.01704	15.94907	14.26493	12.87858	11.72552	10.75696	9.93567	9.23303	8.09975	7.63805
45	30.07996	27.50385	25.25427	21.54884	18.66277	16.38318	14.55791	13.07707	11.86051	10.84909	9.99878	9.27642	8.12047	7.65244
50	32.05208	29.07137	26.50166	22.34147	19.16872	16.70757	14.76680	13.21216	11.94823	10.90630	10.03624	9.30104	8.13123	7.65959