



# How Time Affects The Value Of Money

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Investor A invests \$2,000 a year for 10 years, beginning at age 25. Investor B waits 10 years, then invests \$2,000 a year for 31 years. Compare the total contributions and the total value at retirement of the two investments. This example assumes a 9 percent fixed rate of return, compounded monthly. All interest is left in the account to allow interest to be earned on interest.

Age	Years	Investor A		Investor B	
		Contributions	Year End Value	Contributions	Year End Value
25	1	\$2,000	\$2,188	\$0	\$0
26	2	2,000	4,580	0	0
27	3	2,000	7,198	0	0
28	4	2,000	10,061	0	0
29	5	2,000	13,192	0	0
30	6	2,000	16,617	0	0
31	7	2,000	20,363	0	0
32	8	2,000	24,461	0	0
33	9	2,000	28,944	0	0
34	10	2,000	33,846	0	0
35	11	0	37,021	2,000	2,188
36	12	0	40,494	2,000	4,580
37	13	0	44,293	2,000	7,198
38	14	0	48,448	2,000	10,061
39	15	0	52,992	2,000	13,192
40	16	0	57,963	2,000	16,617
41	17	0	63,401	2,000	20,363
42	18	0	69,348	2,000	24,461

43	19	0	75,854	2,000	28,944
44	20	0	82,969	2,000	33,846
45	21	0	90,752	2,000	39,209
46	22	0	99,265	2,000	45,075
47	23	0	108,577	2,000	51,490
48	24	0	118,763	2,000	58,508
49	25	0	129,903	2,000	66,184
50	26	0	142,089	2,000	74,580
51	27	0	155,418	2,000	83,764
52	28	0	169,997	2,000	93,809
53	29	0	185,944	2,000	104,797
54	30	0	203,387	2,000	116,815
55	31	0	222,466	2,000	129,961
56	32	0	243,335	2,000	144,340
57	33	0	266,162	2,000	160,068
58	34	0	291,129	2,000	177,271
59	35	0	318,439	2,000	196,088
60	36	0	348,311	2,000	216,670
61	37	0	380,985	2,000	239,182
62	38	0	416,724	2,000	263,807
63	39	0	455,816	2,000	290,741
64	40	0	498,574	2,000	320,202
65	41	0	545,344	2,000	352,427
Value at Retirement			\$545,344		\$352,427
Less Total Contributions			(\$20,000)		(\$62,000)
Net Earnings			\$525,344		\$290,427

Note that Investor A, who invested much less than Investor B, has a much higher nest egg at retirement age, because of a 10-year head start. As you can see from this example, compound interest is especially magical when money is steadily invested and left to grow over a long period.

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