



What is the Rule of 72?

The 'Rule of 72' is a simplified way to determine how long an investment will take to double, given a fixed annual rate of interest. By dividing 72 by the annual rate of return, investors can get a rough estimate of how many years it will take for the initial investment to duplicate itself.

For example, the rule of 72 states that \$1 invested at 10% would take 7.2 years ($(72/10) = 7.2$) to turn into \$2. In reality, a 10% investment will take 7.3 years to double ($(1.10^{7.3} = 2)$).

When dealing with low rates of return, the Rule of 72 is fairly accurate. This chart compares the numbers given by the rule of 72 and the actual number of years it takes an investment to double.

Rate of Return	Rule of 72	Actual # of Years	Difference (#) of Years
2%	36.0	35	1.0
3%	24.0	23.45	0.6
5%	14.4	14.21	0.2
7%	10.3	10.24	0.0
9%	8.0	8.04	0.0
12%	6.0	6.12	0.1
25%	2.9	3.11	0.2
50%	1.4	1.71	0.3
72%	1.0	1.28	0.3
100%	0.7	1	0.3

Notice that, although it gives a quick rough estimate, the rule of 72 gets less precise as rates of return become higher. Therefore, when dealing with higher rates, it's best to calculate the precise number of years algebraically by means of the future value formula.