

# Compound Interest RULE OF 72

- IT'S A -  
**MONEY  
THING**<sup>®</sup>



“Money makes money.  
And the money that money  
makes, makes money.”

- Ben Franklin

Compound interest means earning interest  
on your interest—you can use the

## Rule of 72

to approximate how long it will take for an  
investment to double at a given interest rate

— USEFUL FOR —



COMPARING  
INVESTMENTS



SAVINGS  
GOALS



RETIREMENT  
GOALS

### HOW TO 72

Divide the rule number (72) by the annual interest rate (R)  
to find out the approximate time (T) required for doubling

$$72 \div R = T$$

INTEREST RATE                      YEARS TO DOUBLE

— FOR EXAMPLE —

$$72 \div 3 = 24$$

3% ANNUAL  
INTEREST  
RATE

24 YEARS  
TO DOUBLE

\*  
The Rule  
of 72 only  
applies to  
compound  
interest, not  
to simple interest  
calculations

### COMPARING THE MATH

Although scientific calculators and spreadsheet programs have  
functions to find the accurate doubling time, the Rule of 72 is useful  
for mental calculations or when only a basic calculator is available

*This table illustrates just how close the Rule of 72  
is to the actual doubling time*

Interest rate	Actual years	Rule of 72
1%	69.66	72.00
2%	35.00	36.00
3%	23.45	24.00
4%	17.67	18.00
5%	14.21	14.40
6%	11.90	12.00
7%	10.24	10.29
8%	9.01	9.00
9%	8.04	8.00
10%	7.27	7.20
11%	6.64	6.55
12%	6.12	6.00

### DOUBLING IN ACTION



Here are some interest rates to compare—  
as you can see, modest increases in rates  
have a dramatic effect on the doubling time

Years	1.5%	3%	6%	12%	
0	\$10,000	\$10,000	\$10,000	\$10,000	
6				\$20,000	
12	<i>In times of historically low interest rates, it's especially important to start investing early</i>		\$20,000	\$40,000	
18				\$80,000	
24		\$20,000	\$40,000	\$160,000	
30				\$320,000	
36				\$80,000	\$640,000
42					\$1,280,000
48	\$20,000	\$40,000	\$160,000	\$2,560,000	



#### THE TAKEAWAY

Use the Rule of 72 to estimate your potential  
savings. Time is money when it comes to  
compound interest—the longer you wait to  
get started, the less interest you'll earn.

#### INVESTING CAN BE RISKY

Not all investments are guaranteed—  
some investments carry the risk of losing  
money, even when made through a  
financial advisor or financial institution



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Sources: *All the Math You'll Ever Need* by  
Steven Slavin, BetterExplained.com

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