

# FINANCIAL EMPOWERMENT



## LESSON 4:

## THE RULE OF 72 / COMPOUND INTEREST

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Have you ever heard the saying, “make your money work for you”? It is referring to something called compound interest, which can turn a few hundred dollars invested today into thousands in a few decades.

Compound interest has a snowball effect. The money you start with, called your initial investment or principal, earns interest (money) after a set amount of time. This time is called a period and may occur monthly, quarterly or annually. The interest you earned is added to your principal. After the second period ends, you earn more interest - not just on the original principal but also on the interest from period one. At the end of period three, you earn interest on the principal plus interest from periods one and two and so on.

Say you make a one-time investment of \$2,000 into a mutual fund that earns 8% a year. In 40 years, you would have \$48,546. Compound interest is powerful and is the reason you should invest early!



### The Rule of 72

The Rule of 72 is a mathematical shortcut that determines the time it takes to double your initial investment, at any given interest rate.

Here is the formula: **years to double = 72 / Interest Rate**

Examples using the rule of 72:

At 8% interest, your money takes 9 years to double ( $72/8 = 9$ ).

To double your money in 18 years, get an interest rate of 4% ( $72/4 = 18$ )

### Activities:

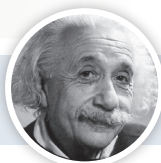
- Figure the missing data below:

INTEREST RATES	# OF YEARS TO DOUBLE
1%	72.00
3%	
5%	14.40
7%	10.29
9%	
11%	5.54

INTEREST RATES	# OF YEARS TO DOUBLE
2%	
4%	18.00
6%	
8%	9.00
10%	7.20
12%	

- How much money would you have to save per month if you wanted to have \$2,000 a year to invest?  $\$2,000 / 12 \text{ months} = \underline{\hspace{2cm}}$
- Compare how much money a person would have if they invested \$2,000 a year starting at the age 18 vs. age 58.

“Compound interest is the greatest mathematical discovery of all time” *Albert Einstein*



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