

## ACTIVITY 3.5 THE RULE OF 72

There is a quick way to estimate the time it takes for an investment compounded annually to double in value. This method is called the **Rule of 72**.

**Rule of 72:** a quick method of estimating the time it takes for an investment to double in value

To calculate the approximate length of time in years it takes for an investment to double, divide 72 by the annual interest rate expressed as a percentage. If you wanted to know approximately how long it would take an investment with an interest rate of 3.00% per annum to double in value, you would divide 72 by 3.

 $72 \div 3 = 24$  years

Using the Rule of 72, you can estimate that it would take about 24 years for the investment to double in value.

- 1. Using the information above, write a formula that describes the Rule of 72. Use the formula to answer question 2.
- 2. If you wanted to double your money in 10 years, at what rate of interest would you need to invest your money?

## SOLUTIONS

1. The Rule of 72 can be expressed with the following formula.

Years to double investment =  $72 \div$  interest rate

$$y = 72 \div r$$

 $2. \quad y = 72 \div r$ 

 $10 = 72 \div r$  $r = 72 \div 10$ 

$$r = 7.2\%$$

You would need to invest your money at an interest rate of 7.2%.

 $J = \frac{72}{r}$  Y = 72  $r = \frac{72}{5}$   $= \frac{72}{10}$   $= 7.2^{2}/6$ 

## Hang on.... HOMEWORK!!!



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