

Simple Interest

Simple Interest is interest earned only on the principal amount invested.

The formula is $I = Prt$ where

- I is the interest earned
- P is the principal amount
- r is the interest rate (as a decimal)
- t is the time (in years)

Example 1: Calculate the amount of simple interest earned on \$1500 at 4% for...

a. 3 years

$$I = Prt$$

$$I = (1500)(0.04)(3)$$

$$I = \mathbf{180}$$

b. 6 months

$$I = Prt$$

$$I = (1500)(0.04)\left(\frac{1}{2}\right)$$

$$I = \mathbf{30}$$

Example 2: How long would it take to gain \$400 in interest on an investment of \$3000 at an interest rate of 2.6%?

$$I = Prt$$

$$400 = (3000)(0.026)(t)$$

$$400 = 78t$$

$$t = \frac{400}{78} \approx 5.13$$

It would take a little over 5 years.

Practice: Website handout