

## Section Overview

## Percent of Change

## Lesson 6-6

**Why?** Both discounts and markups are examples of percents of change.

$$\text{percent of change} = \frac{\text{amount of change}}{\text{original amount}}$$

92 is **increased** to 280.

$$\begin{aligned} \text{percent of increase} &= \frac{188}{92} \\ &\approx 2.043 \\ &\approx 204.3\% \end{aligned}$$

$$280 - 92 = 188$$

75 is **decreased** to 35.

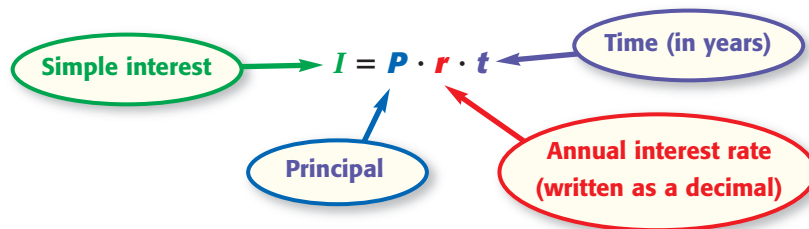
$$\begin{aligned} \text{percent of decrease} &= \frac{40}{75} \\ &\approx 0.533 \\ &\approx 53.3\% \end{aligned}$$

$$75 - 35 = 40$$

## Simple Interest

## Lesson 6-7

**Why?** Simple interest can be charged when you borrow money or paid when you lend or invest money.



Find the interest rate if the simple interest earned on \$800 for 2 years is \$96.

$$\begin{aligned} I &= P \cdot r \cdot t \\ 96 &= 800 \cdot r \cdot 2 \\ \frac{96}{1,600} &= \frac{1,600}{1,600} \cdot r \\ 0.06 &= r \end{aligned}$$

$6\% = r$  The interest rate is 6%.

Find the simple interest if \$400 is invested for 18 months at 3.5%.

$$\begin{aligned} I &= P \cdot r \cdot t \\ I &= 400 \cdot 0.035 \cdot 1.5 \\ I &= \$21.00 \end{aligned}$$

The simple interest is \$21.00.

Change the **rate** from a percent to a **decimal** and the **time** from months to **years**.