LESSON
GR3.5

Finding Percent of Change

? **ESSENTIAL QUESTION**

How can you determine the percent of change and determine if it is an increase or a decrease?

EXPLORE ACTIVITY

A percent can describe an increase or a decrease in an amount that has changed. The process for finding both is the same.

$$\text{Percent Change} = \frac{\text{Amount of Change}}{\text{Original Amount}}$$

If the change is greater than the original amount, it is a percent increase. If the change is less than the original amount, it is a percent decrease.

The price of a video game increases from \$20 to \$25. What is the percent increase?

A Find the amount of change.

Amount of Change = Greater Value − Lesser Value

$= 25 - 20$ **Substitute values.**

$= \underline{\quad}$ **Subtract.**

B Find the percent increase. Round to the nearest percent.

$\text{Percent Change} = \frac{\text{Amount of Change}}{\text{Original Amount}} = \frac{5}{20}$ **Substitute values.**

$= 0.25$ **Divide.**

$= \underline{\quad}$ **Write as a percent and round.**

Tanner decreased the length of his garden from 35 feet to 30 feet. What is the percent decrease?

C Find the amount of change.

Amount of Change = Greater Value − Lesser Value

$= \underline{\quad} - \underline{\quad}$ **Substitute values.**

$= \underline{\quad}$ **Subtract.**

D Find the percent decrease. Round to the nearest percent.

$\text{Percent Change} = \frac{\text{Amount of Change}}{\text{Original Amount}} = \frac{\square}{\square}$ **Substitute values.**

$= \underline{\quad}$ **Write as a percent and round.**

REFLECT

1. What is 25% of \$20? How can you use this to check that the percent increase from \$20 to \$25 is 25%?

_____

2. Annie's puppy weighs 18 pounds at 6 months. At one year, her dog weighs 24 pounds. What is the percent increase? _____

3. The price of a pair of pants decreases from $45 to $36. What is the percent decrease? _____

Guided Practice

1. The price of a pair of roller skates changes from $60 to $70.

Is the change an increase or decrease? _____

_____ − _____ = _____   *Find the amount of change.*

$$\text{Percent Change} = \frac{\text{Amount of Change}}{\text{Original Amount}} = \frac{\Box}{\Box}$$ *Substitute values.*

$= \underline{\qquad}$ *Round and write as a percent.*

? ESSENTIAL QUESTION CHECK-IN

2. How do you find a percent change?

_____

_____

_____

Independent Practice

Find the percent of change. Tell whether it is an increase or a decrease.

3. Original amount: 50
New amount: 80

_____

4. Original amount: 40
New amount: 35

_____

5. Original amount: 28
New amount: 18

_____

6. The price of a DVD was originally $30. It is on sale for $18. What is the percent change? Is it an increase or decrease? _____

7. The cost of a painting doubles from $40 to $80. Predict the percent increase without calculating. Then find the actual percent increase. Does your prediction match the actual percent increase? Explain.

_____

_____