NAME _____ DATE _____ PERIOD _____

Study Guide and Intervention

7NS1.6, 7NS1.7

Percent of Change

To find the percent of change, first find the amount of change. Then find the ratio of that amount to the original amount, and write the ratio as a percent.

Example **Two months ago, the bicycle shop sold 50 bicycles. Last month, 55 bicycles were sold. Find the percent of change. State whether the percent of change is an *increase* or a *decrease*.**

Step 1 Subtract to find the amount of change.

$55 - 50 = 5$

Step 2 Write a ratio that compares the amount of change to the original number of bicycles.

Step 3 Write the ratio as a percent.

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

$$= \frac{5}{50}$$ The amount of change is 5. The original amount is 50.

$= 0.1$ or 10% Divide. Write as a percent.

The percent of change is 10%. Since the new amount is greater than the original, it is a percent of increase.

Exercises

Find each percent of change. Round to the nearest tenth of a percent if necessary. State whether the percent of change is an *increase* or a *decrease*.

1. original: 4
new: 5
25%; increase

2. original: 10
new: 13
30%; increase

3. original: 15
new: 12
20%; decrease

4. original: 30
new: 18
40%; decrease

5. original: 60
new: 63
5%; increase

6. original: 160
new: 136
15%; decrease

7. original: 77
new: 105
36.4%; increase

8. original: 96
new: 59
38.5%; decrease