

Name: \_\_\_\_\_



PRACTICE



TUTORIAL

## 3-4 Additional Practice

Scan for  
Multimedia



**Leveled Practice** In 1–2, fill in the boxes to find the percent increase or decrease.

1. What is the percent increase?

a. Original quantity: 100    New quantity: 106

Amount of increase:

$$\boxed{\phantom{00}} - \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

Percent increase:

$$\boxed{\phantom{00}} \div \boxed{\phantom{00}}$$

$$= \boxed{\phantom{00}}$$

$$= \boxed{\phantom{00}} \% \text{ increase}$$

b. Original quantity: 10    New quantity: 16

c. Original quantity: 50    New quantity: 56

2. What is the percent decrease?

a. Original quantity: 100    New quantity: 88

Amount of decrease:

$$\boxed{\phantom{00}} - \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

Percent decrease:

$$\boxed{\phantom{00}} \div \boxed{\phantom{00}}$$

$$= \boxed{\phantom{00}}$$

$$= \boxed{\phantom{00}} \% \text{ decrease}$$

b. Original quantity: 20    New quantity: 8

c. Original quantity: 50    New quantity: 38

3. If the original quantity is 15 and the new quantity is 19, which is the best estimate for the percent change?

- Ⓐ 25% decrease
- Ⓑ 5% decrease
- Ⓒ 5% increase
- Ⓓ 25% increase

5. Emily and a friend bought two tickets to see a soccer game. Each ticket cost \$8.25. The friends paid a total of \$24.50, which included a fee per ticket for parking near the stadium.

- a. How much did each friend pay for the parking fee?
- b. What percent increase represents the change when parking is included in the final cost? Explain.

4. 360 is increased by 25%. The result is then decreased by 50%. What is the final number?

6. **Critique Reasoning** Two trials are conducted for an experiment. In Trial A, the measured value is 240, while the actual value is 200. In Trial B, the measured value is 195, while the actual value is 240. An assistant says that Trial B has the greater percent error. Is the assistant correct? Explain. ©MP.3



7. Carolyn is searching online for tickets to a concert. Two weeks ago, the cost was \$30. Now the cost is \$39.
- What is the percent increase?
  - What would be the percent increase if the ticket agent charges an additional \$4.50 fee with the new ticket price?
9. The seventh-grade class is raising money to have a class trip at the end of the year. They began the year with \$1,500. Now they have \$1,650 in the account.
- What is the percent of increase for the money the class has raised?
  - Make Sense and Persevere** The class figured out that if the percent increase is 99% from the beginning of the year, the class will have enough money for every student to go on the field trip. How much money will the class need to raise for every student to go. © MP.1
8. Emily predicted her car payment to be \$250 each month. Her actual car payment is \$275 each month. Enrique predicted his car payment to be \$200 each month. His actual car payment is \$225 each month.
- By what percent was Emily's prediction off?
  - By what percent was Enrique's prediction off?
10. Give examples of a 100% increase, 100% decrease, and 100% error. Explain each.
11. **Higher Order Thinking** Suppose the original quantity is 175 and the new quantity is 126. Write an expression that represents the percent change. Find the percent change and express it as a rational number.



## Assessment Practice

12. In the first week of August, there were 1,060 people at an amusement park. In the second week, there were 848 people. In the third week, there were 1,272 people. In the fourth week, only 318 people went to the amusement park. What is the percent of change in the number of people who went to the amusement park for each week in August? Tell whether each week was a percent increase or decrease from the week before.

