

Chapter 8 Review

Vocabulary and Concept Check

- ✓ State whether each sentence is true or false. If false, replace the underlined word, number, or equation to make a true sentence.
1. The sale price of an item is the regular price minus the discount.
 2. When taking a survey, the total group of people that the survey is interested in is called the sample.
 3. To find a percent of increase, compare the amount of the increase to the new amount.
 4. The formula for simple interest is $I = \text{percent} \times \text{base}$.
 5. A sample is representative of the population if it is random.
 6. The percent equation is $I = Prt$.
 7. A tax is the amount by which the regular price of an item is reduced.
 8. The rate is the amount of money deposited or borrowed.
 9. A sample is a question or set of questions designed to collect data about a specific group of people.

8.2 Algebra: The Percent Equation

- ✓ Write an equation for each problem. Then solve. Round to the nearest tenth if necessary.

32 is what percent of 30?

65% of what number is 39?

12% of what number is 108?

7% of 92 is what number?

27 is what percent of 90?

What is 150% of 30?

8.3 Statistics: Using Statistics to Predict

✓ In a university survey, 5.5% of the incoming freshmen chose elementary teaching as a career goal and 6.4% chose engineer.

1. Predict how many of the 3,775 freshmen would choose a career as an elementary teacher.

2. How many of the 3,775 freshman would you expect to choose a career as an engineer?

✓ In a survey of 150 students at McAuliffe Middle School, 12% said they have after-school jobs.

1. Predict how many of the 644 students at the school have after-school jobs.

8.4 Percent of Change

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

original: 172
new: 254

original: \$200
new: \$386

original: 75
new: 60

original: \$49.95
new: \$54.95

8.5 Sales Tax & Discount

✓ Find the total cost or sale price to the nearest cent.

\$25 backpack
7% tax

\$210 bicycle
15% discount

\$8,000 car
5.5% sales tax

(OVER)

✓ Find the percent of discount to the nearest percent.

shirt

regular price: \$42

sale price: \$36

snack

regular price: \$2.50

sale price: \$1

boots

regular price: \$78

sale price: \$70

DVD

regular price: \$24.99

sale price: \$19.99

8.6 Simple Interest

✓ Find the interest earned to the nearest cent for each principal, interest rate, and time.

\$475, 5%, 2 years

\$5,000, 10%, 3 years

\$2,500, 11%, 1.5 years

✓ Find the interest paid to the nearest cent for each principal, interest rate, and time.

\$3,200, 8%, 4 years

\$450, 13.5%, 2 years

\$1,980, 21%, 9 months

(OVER)