Practice 12-4
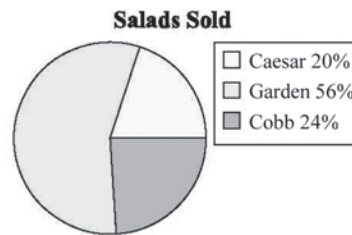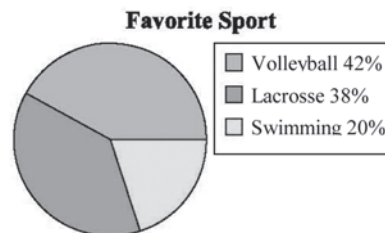
Using Percents

1. What is 20% of 25?

2. On a local sports team, 20% of 50 players are left-handed. How many left-handed players are there?

3. 90% of what number is 45?

4. A restaurant wants to study how well its salads sell. The circle graph shows the sales over the past few days. If 5 of the salads sold were Caesar salads, how many total salads did the restaurant sell?

Salads Sold

☐ Caesar 20%
☐ Garden 56%
■ Cobb 24%

5. 44% of what number is 33?

6. At a school, 122 students play at least one sport. This is 40% of the students at the school. How many students are at the school?

7. **Writing** A school wants to add a new sports team. The school sent out surveys asking for the students' favorite sport. Nineteen students named lacrosse. Others named volleyball or swimming. Explain how to use the circle graph and ratios to find the number of students surveyed. Then find this number.

Favorite Sport

■ Volleyball 42%
■ Lacrosse 38%
☐ Swimming 20%

8. **Reasoning** You know that 26% of a number, x, is 39. You also know that 53% of a number, y, is 91.
   a) What are the values of x and y?

   b) Which number is greater?

   ○ A. y   ○ B. x

   c) Explain how you can find whether x or y is greater without finding their values.

9. **Error Analysis** Krysti is ordering T-shirts for 20 classmates. She knows that 75% of the classmates want the small size. In her order, Krysti mistakenly asked for 25 small shirts.

   a) How may small T-shirts should she have ordered?

   b) What was Krysti's error?

   ○ A. Krysti multiplied the numerator of the percent ratio by 3 instead of 5.

   ○ B. Krysti divided the numerator of the percent ratio by 3 instead of 5.

   ○ C. Krysti divided the numerator of the percent ratio by 5 instead of 3.

   ○ D. Krysti multiplied the numerator of the percent ratio by 5 instead of 3.

10. **Snowstorms** During a 5-year period, 56% of snowstorms in a certain city caused power outages. Thirty-three of the snowstorms did not cause power outages. Find the total number of snowstorms in this city over the 5-year period.

11. **Estimation** Connor and Maria are doing yard work for a neighbor. They make a total of $404.88. Since Maria works more hours than Connor, Maria gets 59% of the money. About how much (in whole dollars) does Maria make?

12. **Mental Math** Find 15% of 400.

13. 34% of what number is 153?

14. **Think About the Process** You want to find 20% of 25. You know to write 20% as the ratio $\frac{20}{100}$.

   a) How could you find an equivalent ratio with denominator 25?

   ○ A. Divide the numerator and denominator by 4.

   ○ B. Multiply the numerator and denominator by 2.

   ○ C. Divide the numerator and denominator by 2.

   ○ D. Multiply the numerator and denominator by 4.

   b) What is 20% of 25?

15. **Think About the Process** Your teacher asks, "45% of what number is 9?" You know to write 45% as the ratio $\frac{45}{100}$.

   a) How could you find an equivalent ratio with numerator 9?

   ○ A. Multiply the numerator and denominator by 9.

   ○ B. Multiply the numerator and denominator by 5.

   ○ C. Divide the numerator and denominator by 9.

   ○ D. Divide the numerator and denominator by 5.

   b) 45% of what number is 9?