Solving Percent Problems using
Proportions Worksheet

Name: _____

Date: _____ Period: _____

REMEMBER:
   "OF" number is always behind the word <u>of</u>

   "%" number is the number with the percent sign
   "IS" number will be in front of the word <u>is</u>
              or behind the word <u>is</u>

<u>PROPORTION</u>

$$\frac{is}{of} = \frac{\%}{100}$$

Write a proportion and then solve it for each problem. Be sure to show all the steps for solving a proportion. If necessary, round answers to the nearest tenth.

1. What number is 70% of 45?   1. _____

2. 23% of 75 is what number?   2. _____

3. 45 is what percent of 90?   3. _____

4. What percent of 77 is 7?   4. _____

5. 15 is 25% of what number?   5. _____

6. 18% of what number is 43?   6. _____

7. What number is 75% of 125?   7. _____

8. In part because of the popularity of outlet malls, about 300 of the 1800 traditional retail malls across the United States may close in the next few years. Find the percent of retail malls that may close?

9. The bee hummingbird is the smallest bird. It can weigh as little as 2 grams. The largest bird, the ostrich, can weigh as much as 150 kilograms. What percent of the weight of a bee hummingbird is the weight of an ostrich?

10. The U.S. Postal Service handles 170,000,000,000 pieces of mail each year. This is 40% of the world's total. How many pieces of mail are sent each year?

11. The weight of a nickel is 80% of the weight of a quarter.

    a. If a nickel weighs 5 grams, how much does a quarter weigh?

    b. A dime weighs 50% as much as a nickel does. What is the weight of a dime?

12. A bike is on sale for $170. This is 80% of the regular price. Find the regular price.

13. During a flu epidemic, 146 students out of the 680 who attend Lincoln Middle School were absent. What percent were absent?