

COLLEGE PREP ALGEBRA

Solving Proportions

NAME _____

HOUR _____ DUE DATE _____

(A) Solve:

1. $\frac{3x}{8} = \frac{5}{12}$

2. $\frac{2x}{7} = \frac{x-2}{14}$

3. $\frac{16x}{x-2} = 8$

4. $\frac{10}{5x-10} = \frac{7}{3x-5}$

(B) Set up and solve by using proportions:

5. An investment of \$500 earns \$60 each year. At this same rate, how much money must be invested to earn \$90 each year?
6. If two pounds of fertilizer will cover 50 square feet of garden, how many square feet will 5 pounds of fertilizer cover?
7. The ratio of yes to no votes in an election was 3 to 2. How many no votes were cast if there were 2,880 yes votes?
8. If 3 ounces of medicine must be mixed with 9 ounces of water, how many ounces of medicine must be mixed with 16 ounces of water?
9. A photograph 5 inches wide by 6 inches high is to be enlarged so that the new height is 20 inches. What will the width of the enlargement be?
10. A certain lawnmower uses 5 tanks of gas to cut 18 acres of lawn. How many acres could be cut using 8 tanks of gas?
11. If two cities on a map are 7 inches apart and the actual distance between the cities is 460 miles, find the distance between two cities that are $4\frac{1}{4}$ inches apart.
12. A football back ran 212 yards in the first two games of the season. If he continues at this fantastic pace, how many yards should he gain in the 11 game season?
13. On a map, $\frac{1}{2}$ inch represents 8 miles. If the distance between two cities is 50 miles, find the distance between the cities on the map.
14. To mix azelia fertilizer correctly, 8 ounces of chemicals are mixed with 2 gallons of water. How much water is needed for an entire 36 ounce box of chemicals?
15. A simple syrup is made by dissolving 2 cups of sugar in $\frac{2}{3}$ cup of boiling water. At this rate, how many cups of sugar are required for 2 cups of boiling water?