

# 7-1 Graded Classwork

## *Ratios and Proportions*

- 1. NUTRITION** One ounce of cheddar cheese contains 9 grams of fat. Six of the grams of fat are saturated fats. Find the ratio of saturated fats to total fat in an ounce of cheese.
  
  
  
  
  
  
  
  
  
  
- 2. FARMING** The ratio of goats to sheep at a university research farm is 4:7. The number of sheep at the farm is 28. What is the number of goats?
  
  
  
  
  
  
  
  
  
  
- 3. QUALITY CONTROL** A worker at an automobile assembly plant checks new cars for defects. Of the first 280 cars he checks, 4 have defects. If 10,500 cars will be checked this month, predict the total number of cars that will have defects.

Solve each proportion.

$$4. \frac{5}{8} = \frac{x}{12}$$

$$5. \frac{x}{1.12} = \frac{1}{5}$$

$$6. \frac{6x}{27} = 43$$

$$7. \frac{x+2}{3} = \frac{8}{9}$$

$$8. \frac{3x-5}{4} = \frac{-5}{7}$$

$$9. \frac{x-2}{4} = \frac{x+4}{2}$$

10. The ratio of the measures of the sides of a triangle is 3:4:6, and its perimeter is 104 feet. Find the measure of each side of the triangle.
11. The ratio of the measures of the sides of a triangle is 7:9:12, and its perimeter is 84 inches. Find the measure of each side of the triangle.
12. The ratio of the measures of the sides of a triangle is 6:7:9, and its perimeter is 77 centimeters. Find the measure of each side of the triangle.
13. The ratio of the measures of the three angles is 4:5:6. Find the measure of each angle of the triangle.
14. The ratio of the measures of the three angles is 5:7:8. Find the measure of each angle of the triangle.
15. **BRIDGES** A construction worker is placing rivets in a new bridge. He uses 42 rivets to build the first 2 feet of the bridge. If the bridge is to be 2200 feet in length, predict the number of rivets that will be needed for the entire bridge.