6-1 Practice

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.

   2:3   6:9

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?

   16 goats

3. **ART** Edward Hopper's oil on canvas painting *Nighthawks* has a length of 60 inches and a width of 30 inches. A print of the original has a length of 2.5 inches. What is the width of the print?

   1.25 in

Solve each proportion.

4. $\frac{5}{8} = \frac{x}{12}$ 7.5

5. $\frac{x}{1.12} = \frac{1}{5}$ .224

6. $\frac{6x}{27} = \frac{4}{3}$ 6

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

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

9. $\frac{x-2}{4} = \frac{x+4}{2}$ -10

Find the measures of the sides of each triangle.

10. The ratio of the measures of the sides of a triangle is 3:4:6, and its perimeter is 104 feet.

    24ft, 32ft, 48ft

11. The ratio of the measures of the sides of a triangle is 7:9:12, and its perimeter is 84 inches.

    21in, 27in, 36in

12. The ratio of the measures of the sides of a triangle is 6:7:9, and its perimeter is 77 centimeters.

    21cm, 24.5cm, 31.5cm

Find the measures of the angles in each triangle.

13. The ratio of the measures of the angles is 4:5:6. (12)

    48, 60, 72

14. The ratio of the measures of the angles is 5:7:8. (9)

    45, 63, 72

15. **BRIDGES** The span of the Benjamin Franklin suspension bridge in Philadelphia, Pennsylvania, is 1750 feet. A model of the bridge has a span of 42 inches. What is the ratio of the span of the model to the span of the actual Benjamin Franklin Bridge?

    $\frac{1}{500}$