Objective L

1. A car can travel 300 kilometers on 20 liters of gas. How many liters will be needed to travel 1,250 kilometers?
   \[ \frac{1,250}{300} \times 20 = \text{liters} \]

2. From a faucet, Frank can fill two one-gallon containers with water in one minute. Assuming this rate is constant, how much time will be needed to fill five one-gallon containers?
   \[ \frac{5}{2} \times 1 = \text{minutes} \]

3. A recipe calls for \( \frac{3}{4} \) cup of flour for 32 servings. For 48 servings, how much flour should be used?
   \[ \frac{48}{32} \times \frac{3}{4} = \text{cups} \]

4. 424 cans of juice can be filled in 12 hours.
   \[ \frac{12}{424} \times 6 = \text{cans} \]

5. A machine can fill 2,400 cans of juice in an hour. At this rate, how many cans of juice can be filled in 12 hours?
   \[ \frac{12}{2400} \times 2400 = \text{cans} \]

6. If cantaloupes are \( \frac{2}{3} \) for \( \frac{3}{4} \) dollars, how much will 8 cantaloupes cost?
   \[ \frac{8}{2} \times \frac{3}{4} = \text{dollars} \]

7. If there are 32 ounces in 1 quart, how many ounces are there in 12 quarts?
   \[ 12 \times 32 = \text{ounces} \]

8. In 1–9, use these similar figures.
   a. Name the corresponding sides.
   b. Find the perimeter of similar figures.

9. The quadrilaterals at the right are similar.
   a. What is the value of \( y \)?
   b. What is the value of \( x \)?
   c. What is the value of \( z \)?

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   a. What is the value of \( y \)?
   b. What is the value of \( x \)?
   c. What is the value of \( z \)?

11. In 1–9, use these similar figures.
   a. Name the corresponding sides.
   b. Find the perimeter of similar figures.

12. A pen pal from Paris sends her friend a scale model of the Eiffel Tower that is 8 cm tall. The box has the ratio \( 1:3750 \). Estimate the height of the Eiffel Tower in meters.
   \[ \frac{8}{3750} \times 3000 = \text{meters} \]

13. A triangle with sides 3, 4, and 5 is a right triangle.
   a. Give the dimensions of a similar bigger right triangle.
   b. Give the dimensions of a similar smaller right triangle.

Sample: 6, 8, 10

Sample: 1:5, 2:5