

# Practice C

For use with pages 465–471

Complete the sentence.

1. If  $\frac{m}{n} = \frac{5}{9}$ , then  $\frac{n}{m} = \frac{?}{?}$ .

2. If  $\frac{m}{n} = \frac{5}{9}$ , then  $\frac{m}{5} = \frac{?}{?}$ .

3. If  $\frac{m}{n} = \frac{5}{9}$ , then  $\frac{m+n}{n} = \frac{?}{?}$ .

4. If  $\frac{m}{n} = \frac{5}{9}$ , then  $\frac{?}{?} = \frac{14}{9}$ .

Find the geometric mean of the two numbers.

5. 8 and 12

6. 8.5 and 12.4

7. 15 and 24

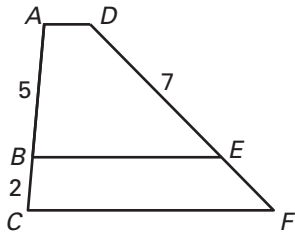
8. 18 and 30

9.  $a$  and  $4a$

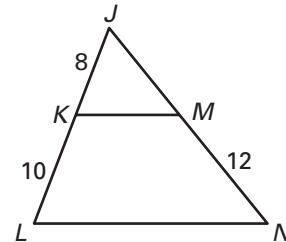
10.  $2a$  and  $4a$

Use the diagram and the given information to find the unknown length.

11. Given:  $\frac{AB}{AC} = \frac{DE}{DF}$ , find  $EF$ .



12. Given:  $\frac{JK}{KL} = \frac{JM}{MN}$ , find  $JN$ .



13. The points  $(-2, -3)$ ,  $(8, 7)$ , and  $(x, -6)$  are collinear. Find the value of  $x$  by solving the proportion below.

$$\frac{(-3) - 7}{(-2) - 8} = \frac{(-3) - (-6)}{-2 - x}$$

14. The points  $(-4, 6)$ ,  $(2, -2)$ , and  $(x, -6)$  are collinear. Find the value of  $x$  by solving the proportion below.

$$\frac{6 - (-2)}{(-4) - 2} = \frac{-2 - (-6)}{2 - x}$$

15. A quality control engineer for a certain buyer found that the ratio of defective units to total units is 1:35. At this rate, what is the expected number of defective units in a shipment of 28,000?

16. The scale represents 100 miles on the accompanying map. Approximate the distance between Philadelphia and Pittsburgh.

