

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

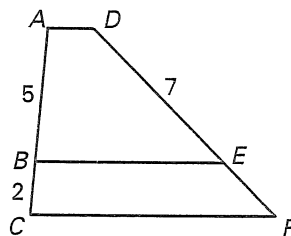
8. 18 and 30

9. a and $4a$

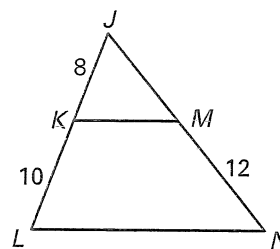
10. $2a$ and $4a$

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.

