

Practice A

For use with pages 465–471

Complete the sentence.

1. If $\frac{a}{b} = \frac{3}{4}$, then $\frac{b}{a} = \frac{?}{?}$.

2. If $\frac{a}{b} = \frac{3}{4}$, then $\frac{a}{3} = \frac{?}{?}$.

3. If $\frac{a}{b} = \frac{3}{4}$, then $\frac{a+b}{b} = \frac{?}{?}$.

4. If $\frac{a}{b} = \frac{3}{4}$, then $\frac{?}{?} = \frac{7}{4}$.

Decide whether the statement is true or false.

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

6. If $\frac{m}{n} = \frac{3}{6}$, then $\frac{3}{n} = \frac{m}{6}$.

7. If $\frac{m}{n} = \frac{2}{3}$, then $\frac{m+n}{n} = \frac{5}{3}$.

8. If $\frac{m}{n} = \frac{3}{4}$, then $\frac{m-n}{n} = -\frac{1}{4}$.

Find the geometric mean of the two numbers.

9. 4 and 9

10. 4 and 16

11. 3 and 12

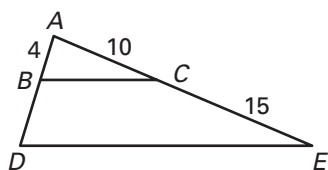
12. 5 and 20

13. 4 and 8

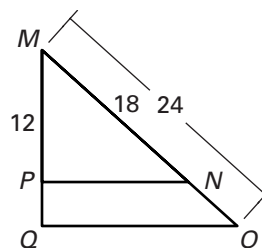
14. 6 and 12

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

15. Given: $\frac{AB}{BD} = \frac{AC}{CE}$, find BD .



16. Given: $\frac{MN}{NO} = \frac{MP}{PQ}$, find PQ .



In Exercises 17 and 18, construct a verbal model and solve the proportion.

17. The recommended application for a particular type of lawn fertilizer is one 50-pound bag for 575 square feet. How many bags of this type of fertilizer would be required to fertilize 2850 square feet of lawn?

Verbal Model: $\frac{a. \quad ?}{b. \quad ?} = \frac{c. \quad ?}{d. \quad ?}$

18. You have just moved into a new neighborhood and a new house valued at \$110,000. If your next door neighbor pays \$1,150 in real estate taxes each year on a house valued at \$89,000, how much a year should you expect to pay in real estate taxes? (Assume that the rate is the same.)

Verbal Model: $\frac{a. \quad ?}{b. \quad ?} = \frac{c. \quad ?}{d. \quad ?}$