NAME _____ DATE _____

Practice A

For use with pages 465–471

Complete the sentence.

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

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

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

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

Decide whether the statement is *true* or *false*.

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

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

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

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

Find the geometric mean of the two numbers.

9. 4 and 9

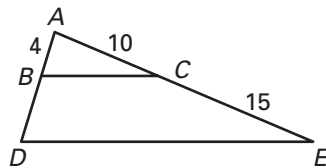**10.** 4 and 16

11. 3 and 12

12. 5 and 20
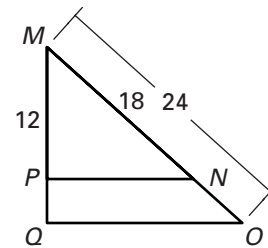
13. 4 and 8

14. 6 and 12

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

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

16. Given: $\dfrac{MN}{NO} = \dfrac{MP}{PQ}$, 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: $\dfrac{\text{a.} \quad ?}{\text{b.} \quad ?} = \dfrac{\text{c.} \quad ?}{\text{d.} \quad ?}$

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: $\dfrac{\text{a.} \quad ?}{\text{b.} \quad ?} = \dfrac{\text{c.} \quad ?}{\text{d.} \quad ?}$