

Practice B

For use with pages 457–464

Simplify the ratio.

1. $\frac{8 \text{ books}}{24 \text{ books}}$

2. $\frac{24 \text{ trees}}{14 \text{ trees}}$

3. $\frac{18 \text{ balls}}{36 \text{ balls}}$

4. $\frac{48 \text{ feet}}{36 \text{ feet}}$

Rewrite the fraction so that the numerator and denominator have the same units. Then simplify.

5. $\frac{2 \text{ qt}}{4 \text{ gal}}$

6. $\frac{250 \text{ mg}}{10 \text{ g}}$

7. $\frac{24 \text{ oz}}{2 \text{ lb}}$

8. $\frac{14 \text{ ft}}{6 \text{ yd}}$

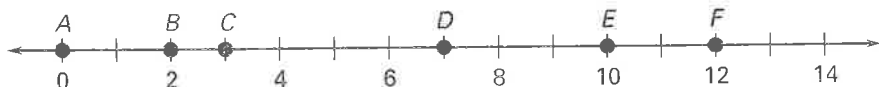
9. $\frac{4 \text{ ft}}{8 \text{ in.}}$

10. $\frac{4 \text{ days}}{36 \text{ hours}}$

11. $\frac{1.5 \text{ m}}{80 \text{ cm}}$

12. $\frac{440 \text{ yd}}{2 \text{ mi}}$

Use the number line to find the ratio of the distances.



13. $\frac{AB}{CD} = \underline{\quad? \quad}$

14. $\frac{BC}{DE} = \underline{\quad? \quad}$

15. $\frac{AC}{BD} = \underline{\quad? \quad}$

16. $\frac{CF}{AB} = \underline{\quad? \quad}$

Solve the proportion.

17. $\frac{x}{6} = \frac{9}{24}$

18. $\frac{y}{9} = \frac{4}{6}$

19. $\frac{17}{24} = \frac{m}{120}$

20. $\frac{6}{x} = \frac{8}{x+3}$

21. $\frac{4}{y+3} = \frac{3}{y-4}$

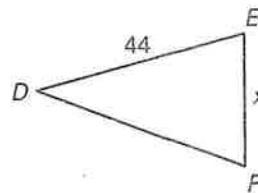
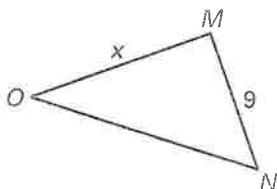
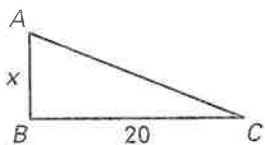
22. $\frac{5}{2y-7} = \frac{3}{y}$

The ratio of two side lengths of the triangle is given. Solve for the variable.

23. $AB : BC$ is 2:5

24. $MN : MO$ is 3:4

25. $DE : EF$ is 8:5



In Exercises 26 and 27, use the following information.

The largest submarines in the United States Navy are of the Ohio class. Each submarine is 560 feet long.

26. You purchase a scale model of one of the submarines. The package states the scale of 1 inch : 16 feet. What is the length of the completed model?

27. If the model is approximately 5 inches tall, what is the height of the actual submarine?