Geometry A
Section 6.1 Homework

Name : _____
Date : _____ Period : _____

Simplify the ratio.

1. $\frac{7 \text{ ft}}{14 \text{ ft}}$

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

3. $\frac{400 \text{ cm}}{10 \text{ m}}$

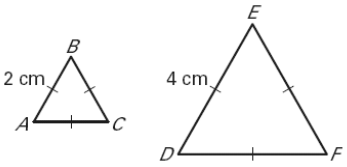
4. $\$28 : \$7$

5. $10 \text{ ft} : 3 \text{ yd}$

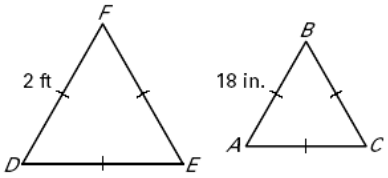
6. 1600 m: 5 km

Find the ratio of a side length in ΔABC to a side length in ΔDEF. Then simplify the ratio.

7.



8.



The perimeter and the ratio of the length to the width of a rectangle are given. Find the length and width of the rectangle.

9. Perimeter: 50 in.
$l : w = 3 : 2$

10. Perimeter: 480 ft
$l : w = 5 : 1$

The measures of the angles of a triangle are in the extended ratio given. Find the measures of the angles of the triangle.

11. 1:1:1

12. 2:3:4

Solve the proportion.

13. $\frac{1}{2} = \frac{x}{8}$

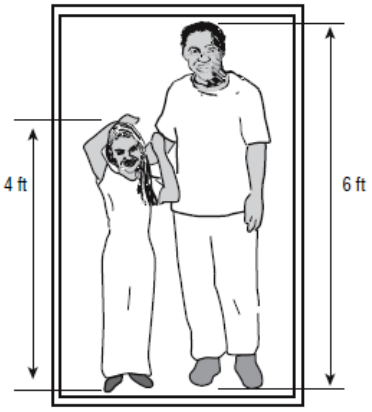
14. $\frac{1}{3} = \frac{3}{y}$

15. $\frac{x}{24} = \frac{x-12}{8}$

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

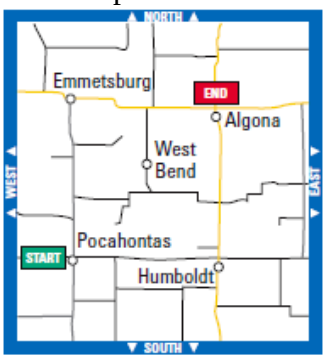
17. **Real Estate** A rectangular plot of land has a perimeter of 392 feet and the length and width are in the ratio 3:1. What are the length and width?

18. Tracy is 4 feet tall and her father is 6 feet tall. In a photograph of the two of them standing side by side, Tracy's image is 2 inches tall. How tall is Tracy's father's image in the photo?



19. Two landmarks are 130 miles from each other. The landmarks are 6.5 inches apart on a map. Find the scale of the map.

20. The scale of the map below is 1 inch: 26 miles. Noah measures the distance from Pocahontas to Algona using a ruler and discovers that they are about 1.25 inches apart on the map. What is the actual distance from Pocahontas to Algona?



ANSWERS:

1) $\frac{1}{2}$ 2) $\frac{1}{12}$ 3) $\frac{2}{5}$ 4) 4 : 1 5) 10 : 9 6) 8 : 25 7) 1 : 2 8) 3:4 9) l = 15 in , w = 10 in

10) l = 200 ft , w = 40 ft 11) 60° , 60° , 60° 12) 40° , 60° , 80° 13) x = 4 14) y = 9

15) x = 18 16) x = 8 17) l = 147 ft , w = 49 ft 18) 3 inches 19) 1in:20miles 20) 32.5 miles