

Unit 6- Worksheet #1: Ratios, Proportions and the Geometric Mean

Simplify the ratio.

1. \$12:\$16

2. $\frac{32 \text{ in}^2}{8 \text{ in}^2}$

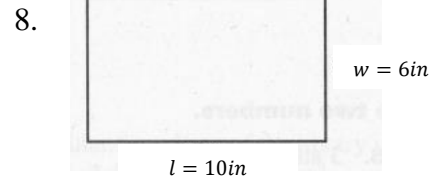
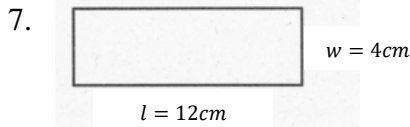
3. $\frac{6 \text{ cm}}{14 \text{ cm}}$

4. $\frac{10 \text{ in}}{2 \text{ ft}}$

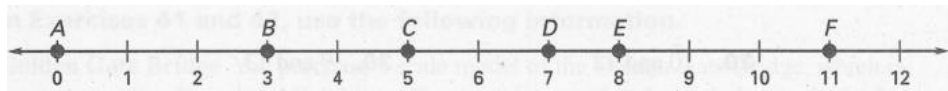
5. 3 gallons: 10 quarts

6. 28 oz: 2 lb

Find the ratio of the **width to the length** of the rectangle. Leave as a simplified the ratio.



Use the number line to find the ratio of the distances. Leave as a simplified the ratio.



9. $\frac{AB}{CF}$

10. $\frac{BF}{CD}$

11. $\frac{DE}{AC}$

12. $\frac{BE}{AD}$

13. The perimeter of a rectangle is 56 inches. The ratio of the length to the width is 6:1. Find the area of the rectangle.

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

7:14:15

15. The area of a rectangle is 525 cm^2 . The ratio of the length to the width is 7:3. Find the length and the width.

Solve the proportion.

$$16. \frac{4}{5} = \frac{x}{15}$$

$$17. \frac{5}{8} = \frac{20}{y}$$

$$18. \frac{z+2}{4} = \frac{27}{12}$$

$$19. \frac{3}{x} = \frac{1}{x-6}$$

$$20. \frac{3}{m+5} = \frac{2}{m+1}$$

$$21. \frac{-1}{2k+3} = \frac{5}{3k-2}$$

Find the geometric mean of the two numbers.

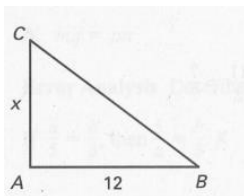
22. 2 and 8

23. 7 and 14

24. 8 and 16

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

25. $AC:AB$ is 3:4



26. $AB:CB$ is 2:1

