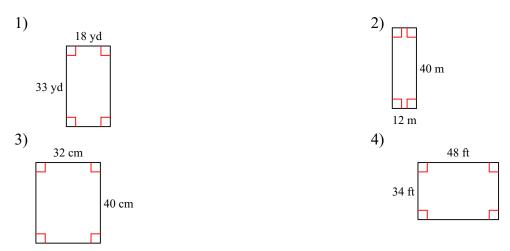
## Chapter 6: Similarity Through Transformations Name © 2014 Kuta Software LLC. All rights reserved. Past due on

C6.APK ~ Ratios & Proportions

Find the width to height ratio of each rectangle. Then simplify the ratio. Then find the perimeter and area of each rectangle.



## Set up and solve an equation that represents the situation.

- 5) The perimeter of a rectangle is 84 feet. The ratio of the width to the length is 2:5.
  - (a) Find the length and the width.
  - (b) Find the area.
- 6) The area of a rectangle is 108 square centimeters. The ratio of the width to the length is 3 : 4.
  - (a) Find the length and the width.
  - (b) Find the perimeter.
- 7) The measures of the angles in a triangle are in the extended ratio 1:4:7.
  - (a) Find the measures of the angles.
  - (b) Classify the triangle according to its angles.
- 8) The measures of the angles in a triangle are in the extended ratio 2 : 15 : 19.
  - (a) Find the measures of the angles.
  - (b) Would the triangle be scalene, isosceles, or equilateral? Explain your reasoning.

Use the Cross Product Property to solve each proportion. If necessary, round your solution to the nearest hundredth.

9) 
$$\frac{5}{12} = \frac{11}{x}$$
 10)  $-\frac{8}{11} = \frac{n}{2}$ 

11) 
$$-\frac{5}{20} = \frac{2}{x+13}$$
 12)  $\frac{10}{3} = \frac{19x+11}{19}$ 

13) 
$$\frac{v+11}{3} = \frac{v}{14}$$
 14)  $\frac{5}{5v+4} = \frac{9}{v}$ 

15) 
$$\frac{b-5}{3} = \frac{b+20}{5}$$
 16)  $\frac{r-12}{9} = \frac{2r-2}{6}$ 

Use the Cross Product Property, followed by the Square Root Property to solve each proportion. If necessary, express your solution as a radical in simplest form.

17) 
$$\frac{x}{16} = \frac{4}{x}$$
 18)  $\frac{x}{2} = \frac{18}{x}$ 

19) 
$$\frac{x}{5} = \frac{15}{x}$$
 20)  $\frac{x}{26} = \frac{2}{x}$