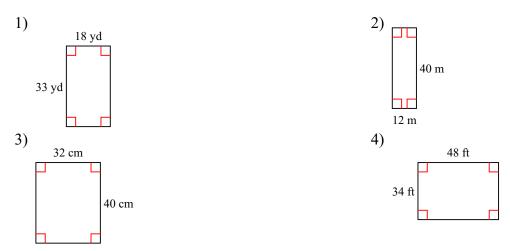
Chapter 6: Similarity Through Transformations Name © 2014 Kuta Software LLC. All rights reserved. Past due on

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) $\frac{x}{26} = \frac{2}{x}$