Name_____ Date_____

Chapter 8 Review - Part 1

8.1 – Simplifying Square Roots

Simplify the following:

1) $\sqrt{28}$

2) $6\sqrt{125}$

3) $-3\sqrt{72}+6\sqrt{52}-7\sqrt{128}$

4) $\left(3\sqrt{5}\right)^2$

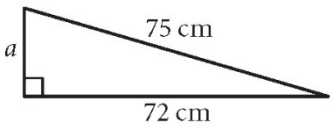
5) $\dfrac{3}{\sqrt{3}}$

6) $\dfrac{1}{5\sqrt{2}}$

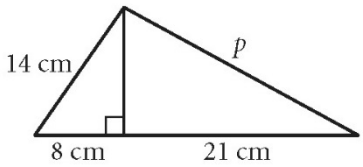
8.2 & 8.3 – The Pythagorean Theorem and Its Converse

Find the missing side. Round to the nearest tenth place.

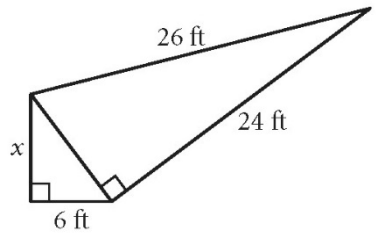
7) $a =$ _____



8) $p =$ _____



9) $x =$ _____



10) Find the height of an equilateral triangular with side length 9 cm.

11) List the Pythagorean triples (Primitives):

Determine whether or not a triangle with the given side lengths is a right triangle.

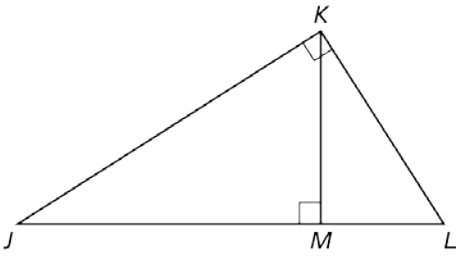
12) 76, 120, 98

13) 221, 204, 85

14) $\sqrt{14}$, $\sqrt{30}$, 4

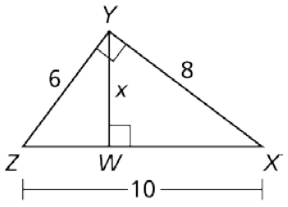
8.4 – Using Similar Right Triangles

15) Write a similarity statement for the three similar triangles:



Find the value of *x*.

16)



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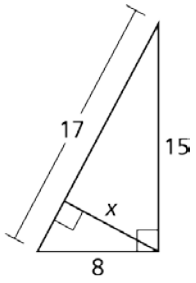

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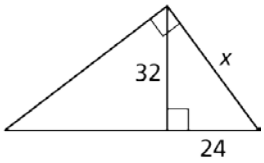

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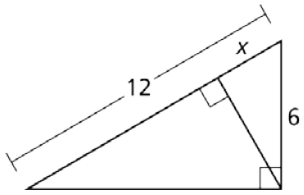
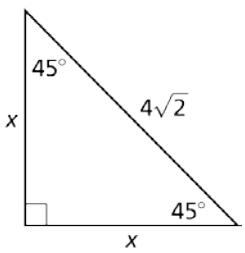
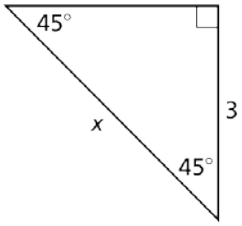
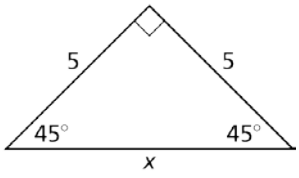


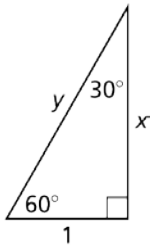
8.5 – Special Right Triangles

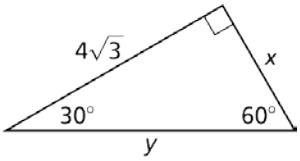
Find the value of the variables. Write your answers in simplest radical form.

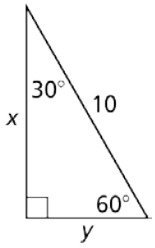
20) 

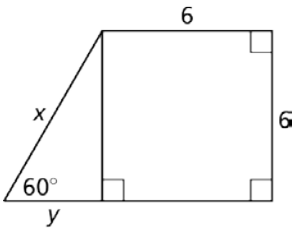
21) 

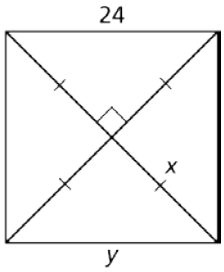
22) 

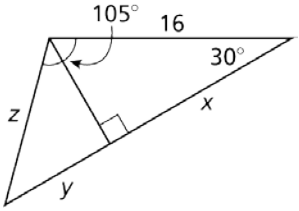
23) 

24) 

25) 

26) 

27) 

28) 

8.6 – The Distance Formula

29) What is the distance formula? Distance = _____

Find the distance between the points.

30) (5, 6) and (1, 3)

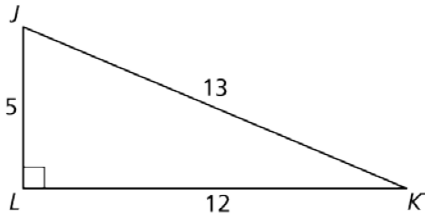
31) (3, 5) and (4, -1)

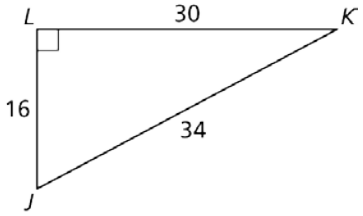
32) Determine whether a triangle with the following vertices is scalene, isosceles, or equilateral.

(3, 2) (-10, 4), (-5, -8)

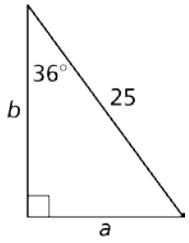
8.7/8.8 – Using Trigonometric Functions

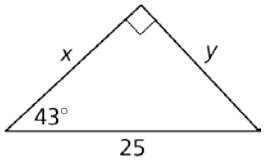
Find sin *J*, sin *K*, cos *J*, and cos *K*. Write each answer as a fraction and as a decimal rounded to four places.

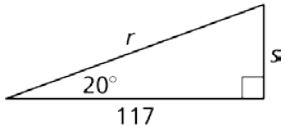
33) 

34) 

Find the value of the missing sides. Round to the nearest tenth.

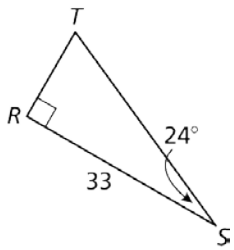
35) 

36) 

37) 

Find the value of all the sides and angles.

38)



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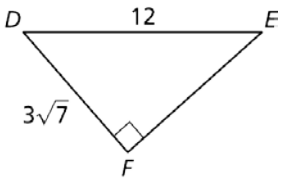

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