Simplifying and Multiplying Radicals Review Day 1

Name _____

Simplify the following radicals. Leave answer in radical form.

1) $\sqrt{18}$
2) $\sqrt{68}$
3) $\sqrt{60}$
4) $\sqrt{75}$
5) $\sqrt{162}$
6) $\sqrt{12}$
7) $\sqrt{125}$
8) $\sqrt{300}$
9) $\sqrt{128}$
10) $\sqrt{32}$
11) $\sqrt{216}$
12) $\sqrt{124}$
13) $2\sqrt{108}$
14) $3\sqrt{20}$
15) $\sqrt{40}$
16) $\sqrt{99}$
17) $\sqrt{275}$
18) $\sqrt{420}$
19) $\sqrt{640}$
20) $-4\sqrt{28}$
21) $-11\sqrt{242}$
22) $\sqrt{150}$
23) $2\sqrt{121}$
24) $-5\sqrt{18}$
25) $3\sqrt{175}$
26) $4\sqrt{48}$
27) $4\sqrt{250}$
28) $2\sqrt{500}$
29) $\sqrt{1,000,000}$
30) $3\sqrt{28}$
31) $4\sqrt{80}$
32) $-3\sqrt{54}$
33) $-8\sqrt{121}$

Simplify the following radicals. Leave answer in radical form.

34) $\sqrt{5} \cdot \sqrt{10}$
35) $\sqrt{5} \cdot \sqrt{60}$
36) $3\sqrt{5} \cdot \sqrt{5}$
37) $4\sqrt{10} \cdot 3\sqrt{6}$
38) $\sqrt{6} \cdot 4\sqrt{24}$
39) $5\sqrt{10} \cdot 3\sqrt{10}$
40) $7\sqrt{30} \cdot 2\sqrt{6}$
41) $\sqrt{72} \cdot \sqrt{48}$
42) $11\sqrt{14} \cdot 2\sqrt{7}$
43) $\sqrt{3} \cdot 3\sqrt{6}$
44) $\sqrt{10} \cdot \sqrt{20}$
45) $\sqrt{7} \cdot \sqrt{21}$
46) $6\sqrt{2} \cdot \sqrt{45}$
47) $5\sqrt{60} \cdot 2\sqrt{30}$
48) $2\sqrt{3} \cdot \sqrt{33}$
49) $\sqrt{32} \cdot \sqrt{12}$
50) $\sqrt{5} \cdot \sqrt{8}$
51) $5\sqrt{6} \cdot 2\sqrt{3}$
52) $\sqrt{3} \cdot \sqrt{30}$
53) $3\sqrt{6} \cdot 6\sqrt{6}$
54) $\sqrt{6} \cdot \sqrt{14}$
55) $2\sqrt{18} \cdot 6\sqrt{3}$
56) $5\sqrt{2} \cdot 4\sqrt{12}$
57) $-7\sqrt{3} \cdot 2\sqrt{10}$

Worksheet Dividing Radicals Review Day 1

Name _____

Simplify the following radicals. Leave no square root in the denominator, simplify all radical and numbers.

1) $\sqrt{\frac{4}{5}}$

2) $\frac{5}{\sqrt{3}}$

3) $\sqrt{\frac{16}{3}}$

4) $\sqrt{\frac{15}{5}}$

5) $\frac{2}{\sqrt{7}}$

6) $\frac{\sqrt{7}}{\sqrt{3}}$

7) $\sqrt{\frac{5}{10}}$

8) $\frac{\sqrt{18}}{\sqrt{10}}$

9) $\frac{\sqrt{42}}{\sqrt{7}}$

10) $\frac{\sqrt{169}}{\sqrt{11}}$

11) $\frac{14}{\sqrt{2}}$

12) $\frac{\sqrt{11}}{\sqrt{32}}$

13) $\frac{\sqrt{9}}{\sqrt{18}}$

14) $\frac{\sqrt{30}}{\sqrt{6}}$

15) $\frac{8}{\sqrt{20}}$

16) $\frac{\sqrt{3}}{2\sqrt{6}}$

17) $\frac{3\sqrt{6}}{\sqrt{2}}$

18) $\frac{2\sqrt{3}}{\sqrt{15}}$

19) $\frac{9}{2\sqrt{45}}$

20) $\frac{\sqrt{18}}{\sqrt{10}}$

21) $\frac{4\sqrt{10}}{\sqrt{6}}$

22) $\sqrt{\frac{36}{49}}$

23) $\sqrt{\frac{1}{4}}$

24) $5\sqrt{\frac{12}{36}}$

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

26) $\sqrt{\frac{1}{3}}$

27) $\frac{\sqrt{6}}{\sqrt{3}}$

28) $\frac{\sqrt{7}}{\sqrt{36}}$

29) $\frac{3\sqrt{27}}{\sqrt{2}}$

30) $\frac{\sqrt{7}}{\sqrt{3}}$

31) $\frac{\sqrt{27}}{\sqrt{14}}$

32) $\frac{5}{\sqrt{8}}$

33) $\frac{\sqrt{2}}{\sqrt{6}}$

34) $\frac{\sqrt{8}}{\sqrt{60}}$

35) $\frac{3\sqrt{51}}{\sqrt{17}}$

36) $\frac{2\sqrt{5}}{\sqrt{75}}$

37) $\frac{8}{\sqrt{27}}$

38) $\frac{\sqrt{64}}{\sqrt{18}}$

39) $\frac{\sqrt{3}}{\sqrt{25}}$

40) $2\sqrt{\frac{18}{36}}$

41) $6\sqrt{\frac{1}{3}}$

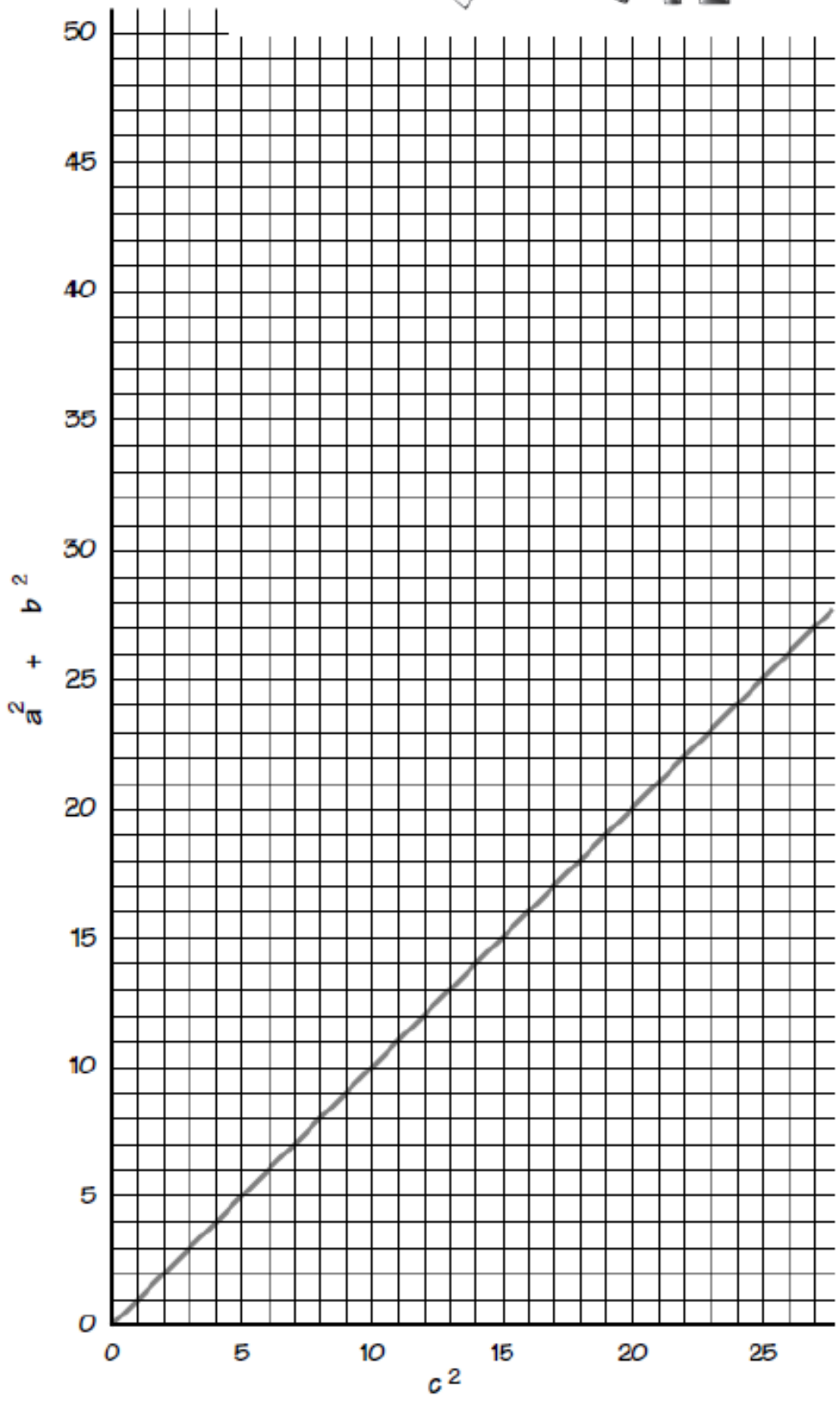
42) $\frac{\sqrt{20}}{\sqrt{49}}$

TRIANGLES OF SQUARES

Make all the possible different size triangles you can out of 2,3,4, and 5 cm squares. Record the dimensions and complete the chart.

Length of Sides			Squares on Sides			Type of Triangle	
Shortest Side a	Midlength Side b	Longest Side c	Sum of squares on shorter sides a^2+b^2	< > =	Area of square on longest side c^2	By Angles Acute Right Obtuse	By Sides Equilateral Isosceles Scalene

TRIANGLES OF SQUARES



Plot a point for each triangle so it records the area of sum of the squares on the two smaller sides and the area of the square on the longest side.

a. What type of triangles get plotted above the gray line?

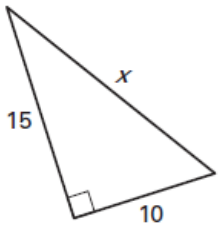
b. What type of triangles get plotted on the gray line?

c. What type of triangles get plotted below the gray line?

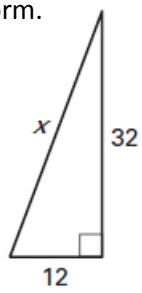
HW 8.1 The Pythagorean Theorem Name:

Find the length of the hypotenuse, leave answer in simplest radical form.

1)

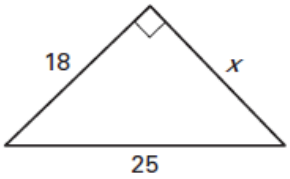


2)

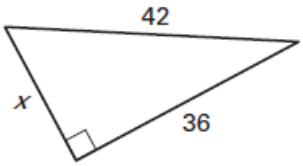


Find the unknown leg length, leave answer in simplest radical form.

3)

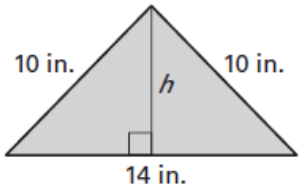


4)



Find the area of the isosceles triangle in simplest radical form.

5)



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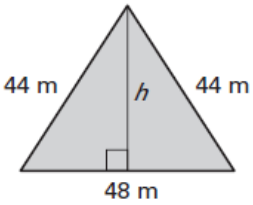
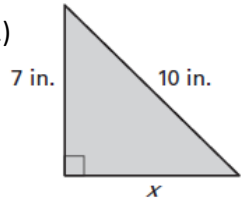


The given lengths are two sides of a right triangle. All three side lengths of the triangle are integers and together form a Pythagorean triple. Find the length of the third side and tell whether it is a leg or the hypotenuse.

7) 24 and 32 8) 24 and 45 9) 40 and 85 10) 49 and 168 11) 72 and 78

Find the area of the right triangle. Write your answer in simplest radical form.

12)



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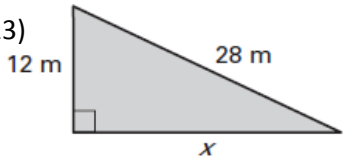
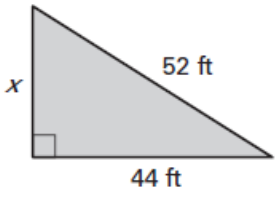
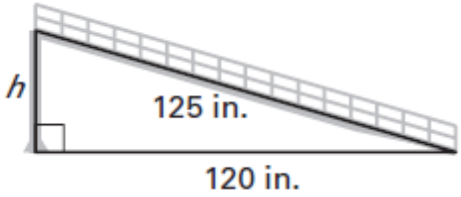


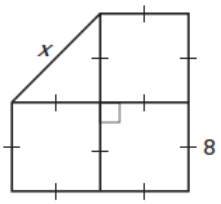
14)

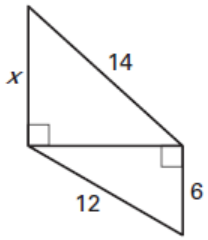


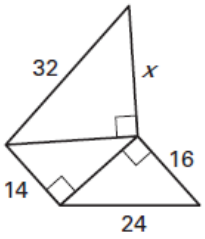
15) A shipping dock has a mobile ramp that is used to help load and unload cargo from trucks. The ram is 125 inches long and has a base that is 120 inches long. What is the height h or the ramp?



Challenge, Find the value of x for each

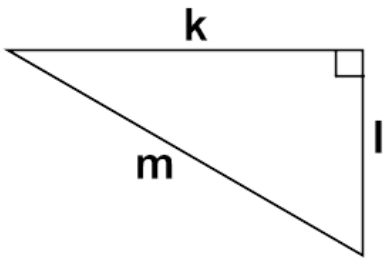
16) 

17) 

18) 

Tell whether each equation is correct or incorrect. If it is incorrect, explain why.

1.	$j^2 + k^2 = m^2$	
2.	$m = j + k$	
3.	$k^2 = m^2 - j^2$	
4.	$j^2 + m^2 = k^2$	
5.	$m^2 - j^2 = k^2$	
6.	$j^2 = (m-k)(m+k)$	



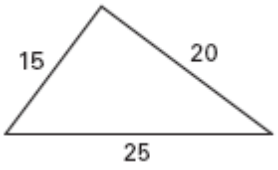
Sketch a picture and find the missing length. Round to the nearest tenth. Do Work in composition book.

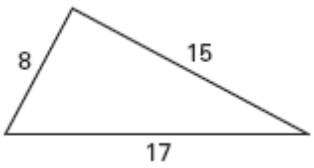
7. The slide at the playground has a height of 6 feet. The base of the slide measured on the ground is 8 feet. What is the length of the sliding board?
8. The bottom of a 13-foot straight ladder is set into the ground 5 feet away from a wall. When the top of the ladder is leaned against the wall, what is the distance above the ground it will reach?
9. A baseball "diamond" is actually a square with sides of 90 feet. If a runner tries to steal second base, how far must the catcher, at home plate, throw to get the runner "out"? Given this information, explain why runners more often try to steal second base than third.
10. Your family wants to purchase a new laptop with a 17" widescreen. Since the 17 inches represents the diagonal measurement of the screen (upper corner to lower corner), you want to find out the actual dimensions of the laptop. When you measured the laptop at the store, the height was 10 inches, but you don't remember the width. Calculate and describe how you could figure out the width of the laptop to the nearest tenth inch.
11. During a football play, DeSean Jackson runs a straight route 40 yards up the sideline before turning around and catching a pass thrown by Michael Vick. On the opposing team, a defender who started 20 yards across the field from Jackson saw the play setup and ran a slant towards Jackson. What was the *distance* the defender had to run to get to the spot where Jackson caught the ball?
12. In construction, floor space must be planned for staircases. If the vertical distance between the first and second floors is 3.6 meters, and a contractor is using the standard step pattern of 28 cm wide for 18 cm high, then how many steps are needed to get from the first to the second floor and how much linear distance (ie "width" or "base") will be needed for the staircase? What is the length of the railing that would be attached to these stairs?

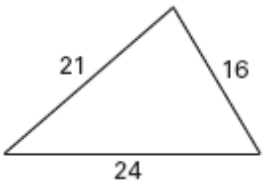
HW 8.2 Converse of the Pythagorean Theorem Name:

Do Work on own sheet of paper.

Tell whether the triangle is a right triangle. If not a right triangle, then what kind?

1) 

2) 

3) 

Decide whether the numbers <u>can represent the side lengths of a triangle</u>. If they can, classify the triangle as ***acute***, ***right***, or ***obtuse***.

4) 6, 8, 10

5) 5, 7, 9

6) 8, 9 10

7) 10, 12, 30

8) 16, 30, 34

9) 18, 34, 45

10) $\sqrt{8}$, 4, 6

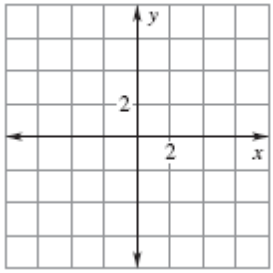
11) 20, 21, 28

12) $\sqrt{13}$, 10, 12

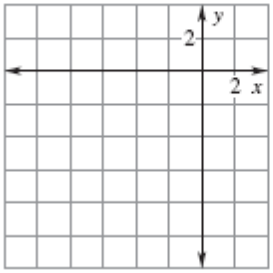
13) 14, 48, 50

Graph points A, B, and C. Connect the points to form ΔABC. Decide whether ΔABC is ***right***, ***acute***, or ***obtuse***.

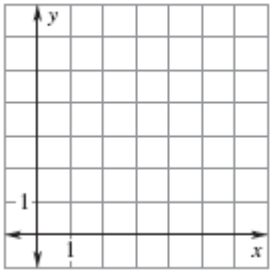
14) $A(-3, 5), B(0, -2), C(4, 1)$



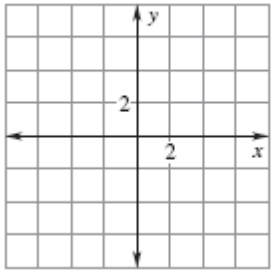
15) $A(-8, -4), B(-5, -2), C(-1, -7)$



16) $A(0, 5), B(3, 6), C(5, 1)$



17) $A(-2, 4), B(2, 0), C(5, 2)$



The sides and classification of a triangle are given below. The length of the longest side is the integer given. What value(s) of x make the triangle?

20) x, x, 8; right

21) x, x, 12; obtuse

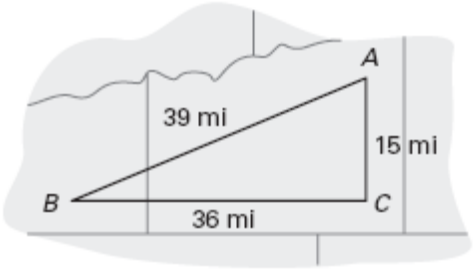
22) x, x, 6; acute

23) x, x, 16; right

24) x, x, 10; obtuse

25) x, x, 15; acute

Maps The distances between three towns are given in the diagram.

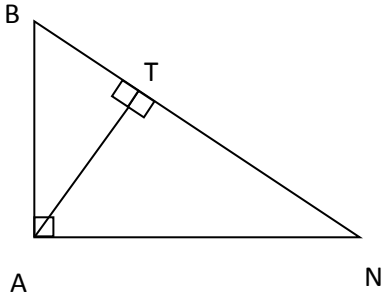


26) Is the triangle (ΔABC) formed by the three towns a right triangle?

27) Town B is directly west of town C. Is town A directly north of town C?

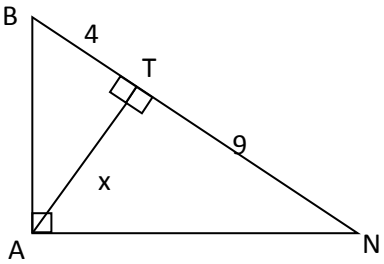
HW 8.3 – Altitude to the Hypotenuse Name:

1) If an altitude is drawn to the hypotenuse of triangle BAN below, then name and redraw the 3 similar triangles created.

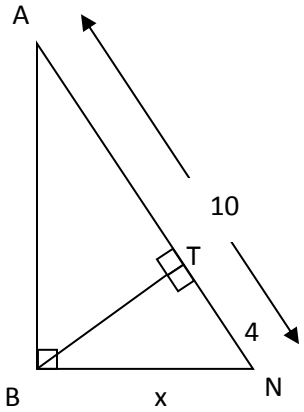


Find the missing value "x" below:

2)

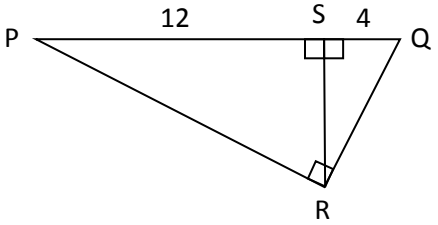


3)

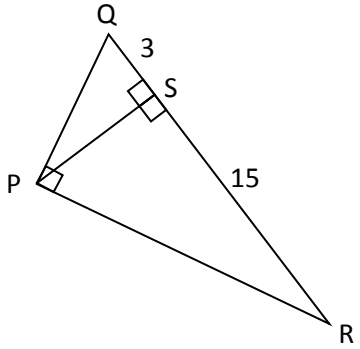


For 4-6 find the length of the altitude of right triangle PQR.

4)



5)



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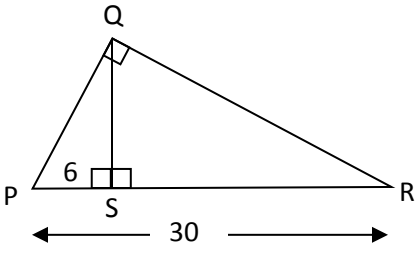


Find the geometric mean of the following numbers.

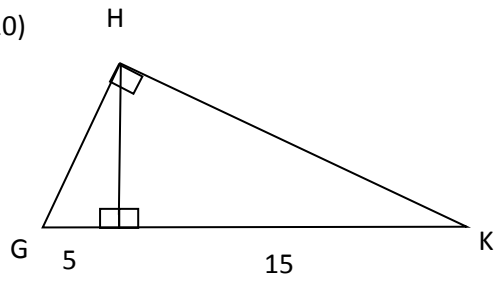
7) 5 and 8

8) 8 and 32

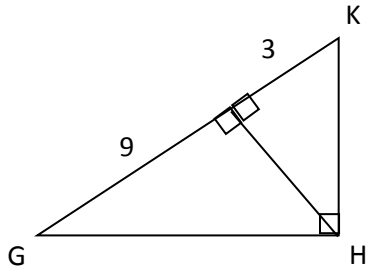
9) 6 and 8

Find the length of each leg of right triangle GHK. (find GH and HK)

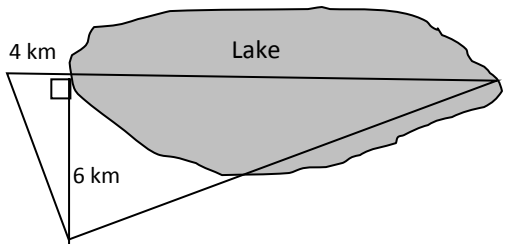
10)



11)

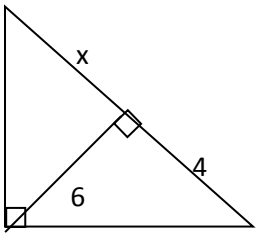


15) How far is it across the lake?

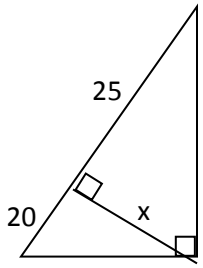


Solve for the variable(s)

2)



3)



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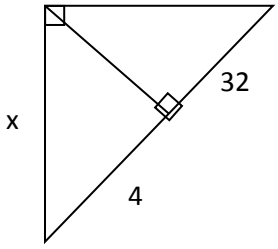
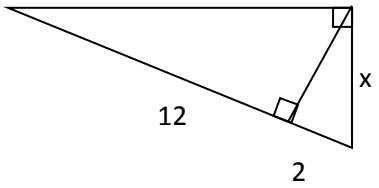


5)



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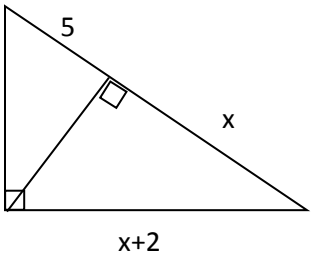

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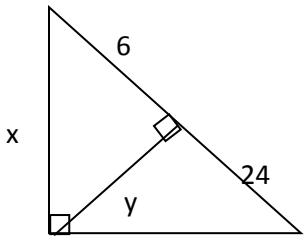


Find the geometric mean for the following numbers.

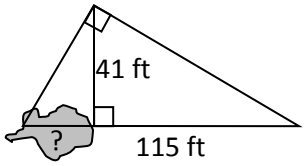
8) 32 and 2

9) 6 and 8

10) 6 and 7

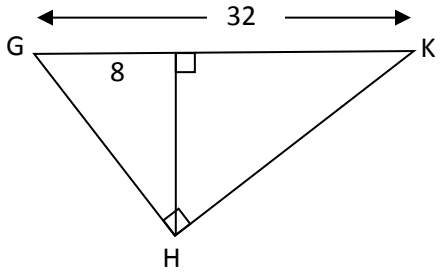
14) The altitude, $\overline{XR}$, to the hypotenuse of right $\triangle WXY$ divides the hypotenuse into segments that are 8 and 10 cm long. Find the length of the altitude.

15) How far is it across the quicksand?

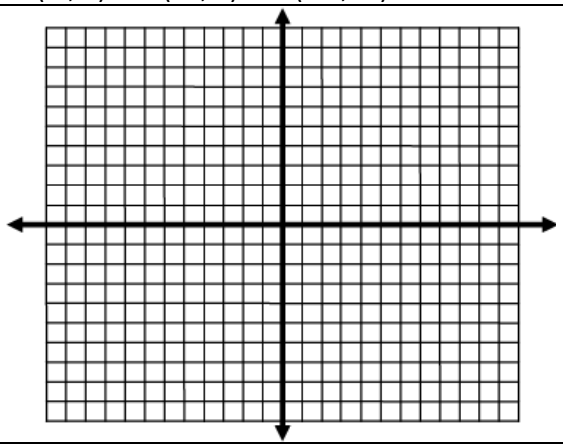
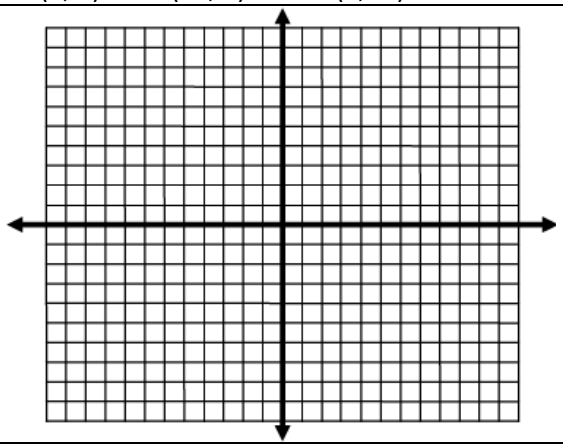


16) The altitude of a right triangle divides the hypotenuse into two segments whose lengths are 9 cm and 16 cm. Find the lengths of the two legs.

17) Find the lengths of GH and HK.

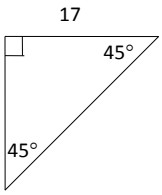


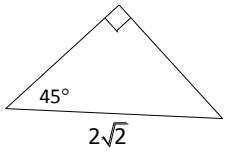
Graph and connect points A, B, and C. **VERIFY algebraically** whether ΔABC is acute, right, or obtuse.

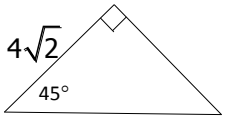
18. A(-4, 8) B(12, 0) C(-10, -4)	19. A(0, 4) B(10, 2) C(2, -2)
	

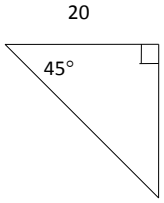
HW 8.4 45-45-90 Special Right Triangles Name:

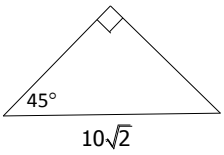
Find the value of the missing sides. Leave in rationalized and simplified form.

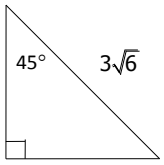
1) 

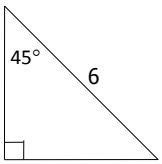
2) 

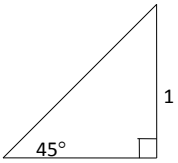
3) 

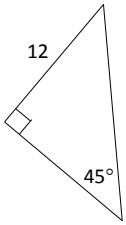
4) 

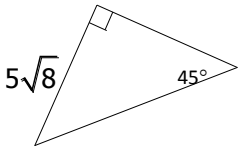
5) 

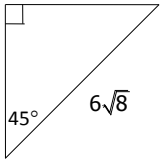
6) 

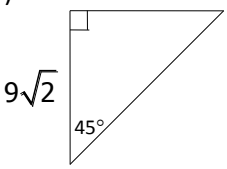
7) 

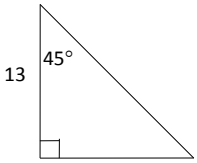
8) 

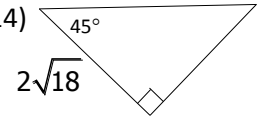
9) 

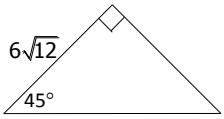
10) 

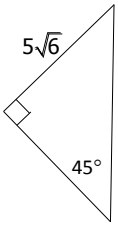
11) 

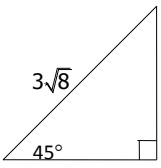
12) 

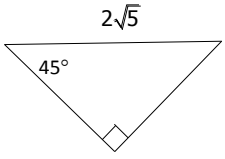
13) 

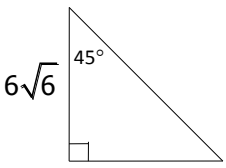
14) 

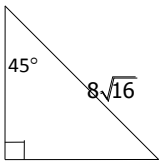
15) 

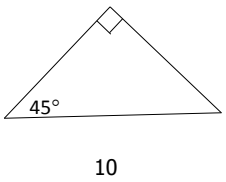
16) 

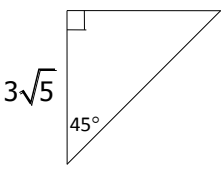
17) 

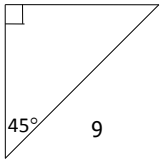
18) 

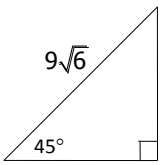
19) 

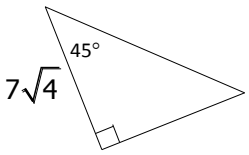
20) 

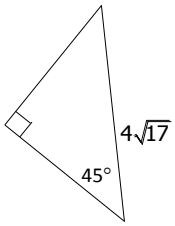
21) 

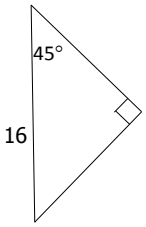
22) 

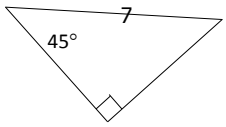
23) 

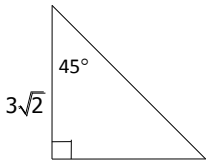
24) 

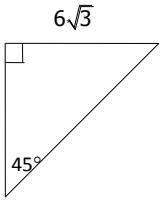
25) 

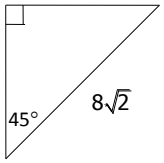
26) 

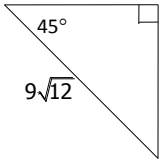
27) 

28) 

29) 

30) 

31) 

32) 

For the remaining problems, sketch and label a diagram.

33) The sides of a square are 12 inches long. What is the length of the diagonal?

34) An isosceles right triangle has a hypotenuse of $8\sqrt{2}$ cm. What is the length of the legs of the triangle?

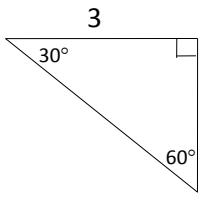
35) A square has a diagonal with the length of $8\sqrt{6}$ meters. What is the length of the sides?

36) An isosceles right triangles legs are $10\sqrt{8}$ feet long. What is the length of the hypotenuse?

HW 8.5A 30-60-90 Special Right Triangles Name:

Find the measure of the missing 2 sides for each figure below. Leave answer in rationalized and simplified form.

1)



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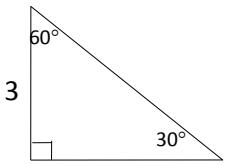
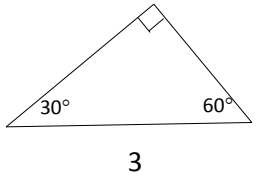


3)



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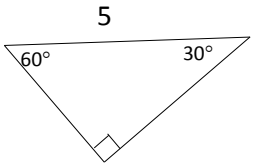

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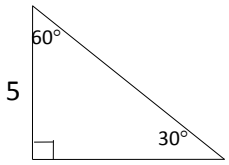

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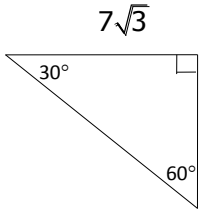

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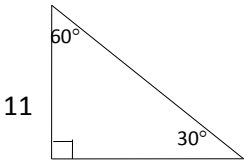

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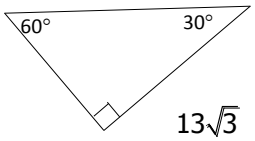

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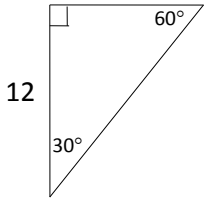

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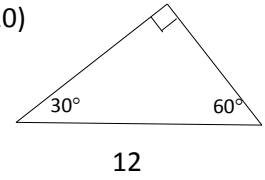

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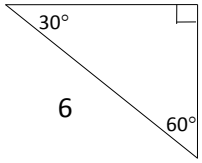

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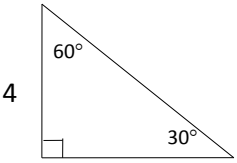

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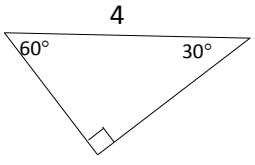
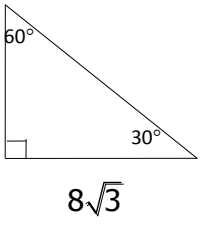
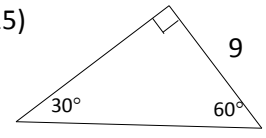


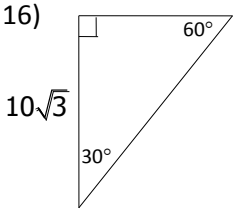
14)



15)



16)



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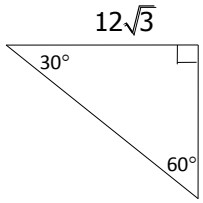

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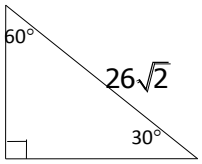

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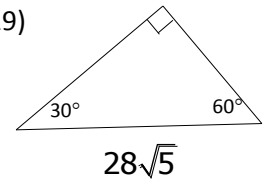

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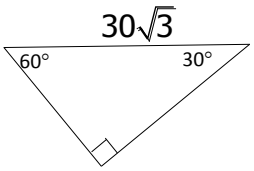

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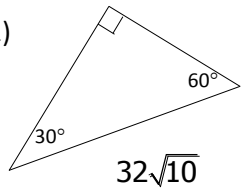

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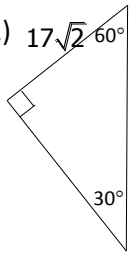

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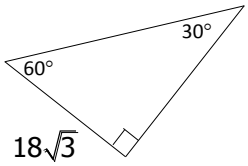
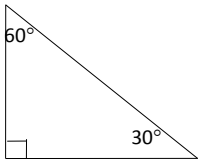


24)



$19\sqrt{7}$

25) An equilateral triangle sides are 10 inches. What is the length of the altitude?

26) An equilateral triangle has an altitude of 6 cm. What is the length of the sides?

27) In a $30° - 60° - 90°$ triangle, the shortest leg is 6, what is the length of the longest leg and the hypotenuse?

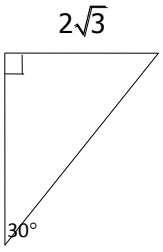
28) In a $30° - 60° - 90°$ triangle, the longest leg is $4\sqrt{3}$, what is the length of the shortest leg and the hypotenuse?

27) In a $30° - 60° - 90°$ triangle, the hypotenuse is $6\sqrt{3}$, what is the length of the legs of the triangle?

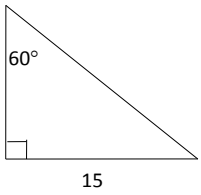
HW 8.5B 30-60-90 Special Right Triangles Name:

Find the measure of the missing 2 sides for each figure below. Leave answer in rationalized and simplified form.

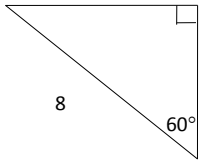
1)



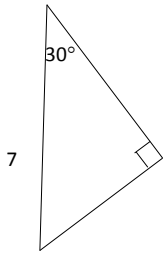
2)



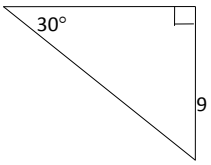
3)



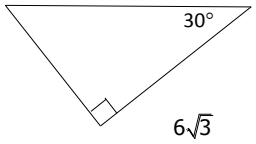
4)



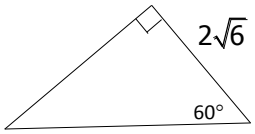
5)



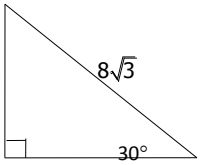
6)



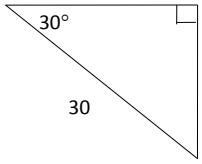
7)



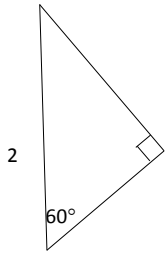
8)



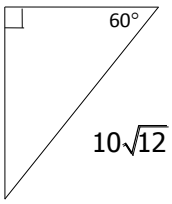
9)



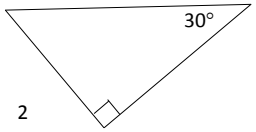
10)



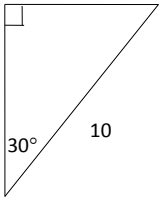
11)



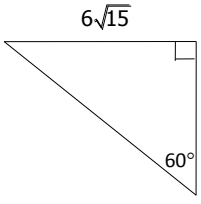
12)



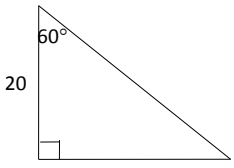
13)

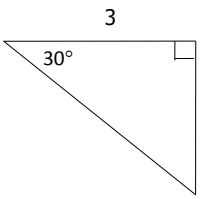


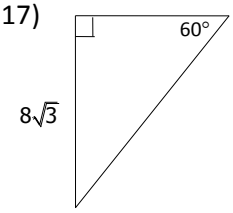
14)

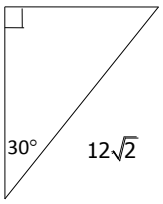


15)



16) 

17) 

18) 

Draw a picture for each of the following leave answers in rationalized and simplified form.

19) In an equilateral triangle, the sides are $14\sqrt{7}$. Find the length of the altitude.

20) In an equilateral triangle, the altitude is $4\sqrt{5}$. Find the length of the sides.

21) In an equilateral triangle, the altitude is $\sqrt{7}$. Find the length of the sides.

22) In an equilateral triangle, the sides are $6\sqrt{10}$. Find the length of the altitude.

23) In a 30-60-90 triangle, the hypotenuse is $15\sqrt{3}$. Find the length of the longest leg.

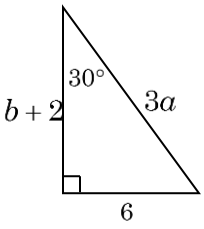
24) In a 30-60-90 triangle, the shortest leg is $4\sqrt{21}$. Find the length of the longest leg.

8.6 Very Special Special Right Triangles Practice

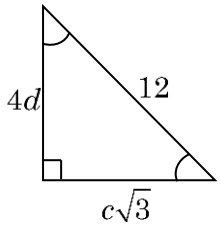
Name _____

Find the value of the variables for each special right triangle

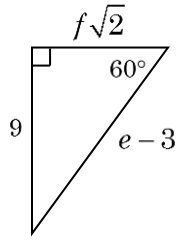
1)



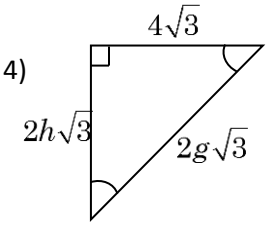
2)



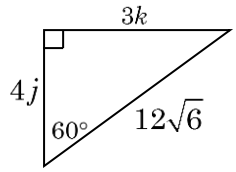
3)



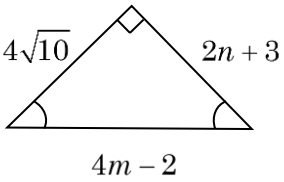
4)



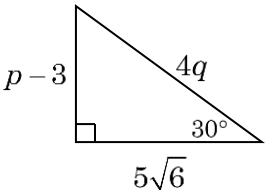
5)



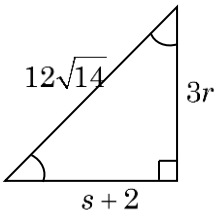
6)



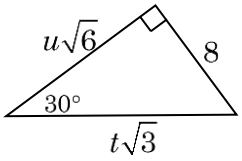
7)



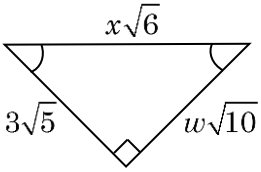
8)



9)



10)

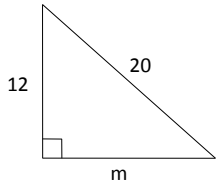


HW 8.7 Combo Day

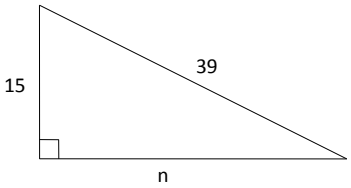
Name _____

Choose the best method, and then solve for the indicated values. Leave answers in simplified radical form.

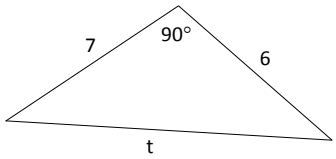
1. m = _____



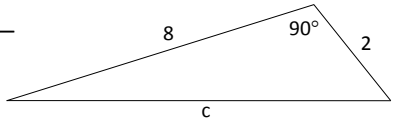
2. n = _____



3. t = _____

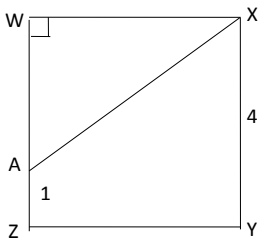


4. c = _____

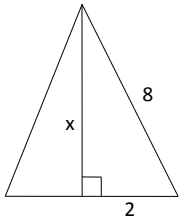


5. AX = _____

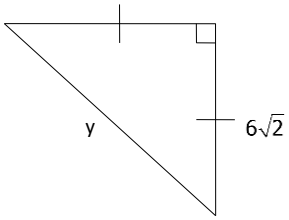
square WXYZ



6. x = _____

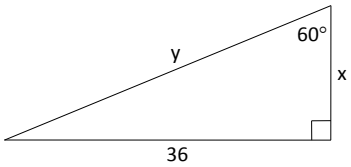


7. y = _____



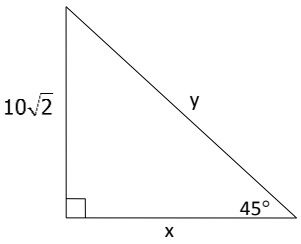
8. x = _____

y = _____



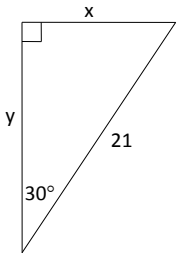
9. x = _____

y = _____



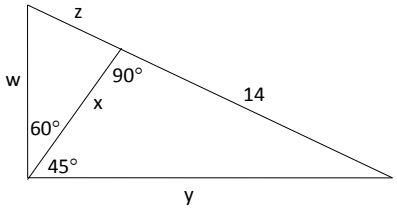
10. x = _____

y = _____

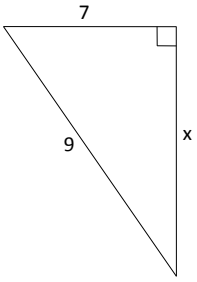


11. w = _____ x = _____

y = _____ z = _____



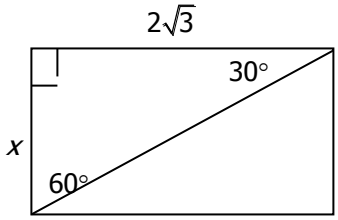
12. x = _____



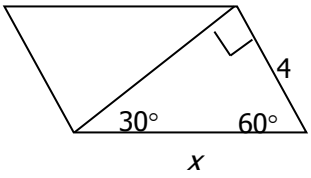
13. A square has a diagonal of length 8 cm. Find the length of each side. _____

14. An equilateral triangle has sides of length 14 cm. Find the length of the altitude _____

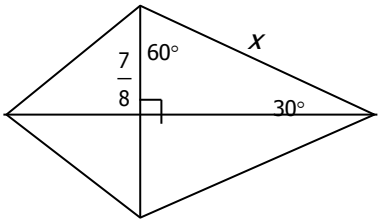
15. Find the value of x.



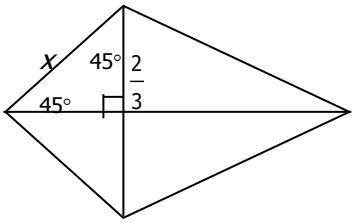
16. Find the value of x.



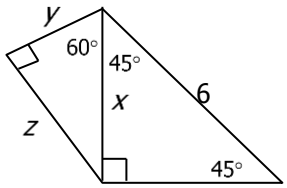
17. Find the value of x.



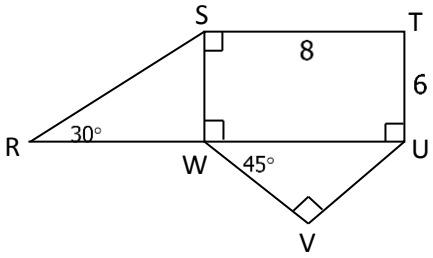
18. Find the value of x.



19. Find the value of x, y and z.

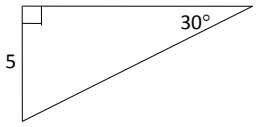


20. Find the missing side lengths of hexagon RSTUVW. Find the perimeter.

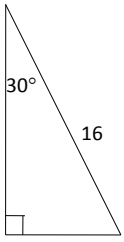


Find the missing lengths for each triangle below.

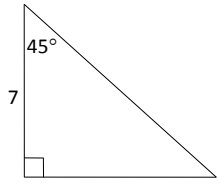
1)



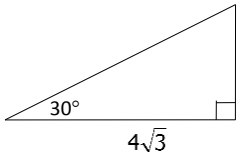
2)



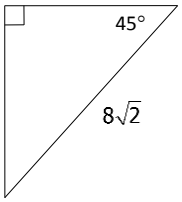
3)



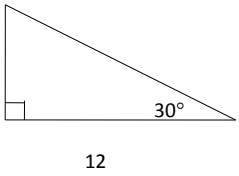
4)



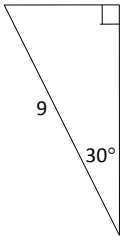
5)



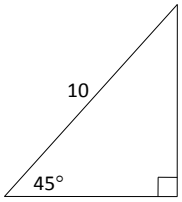
6)



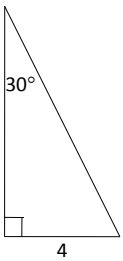
7)



8)



9)



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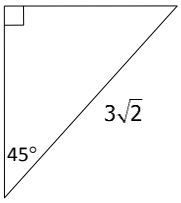

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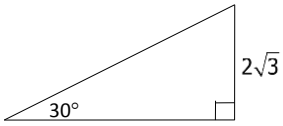

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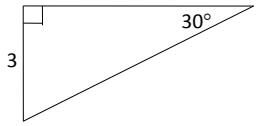

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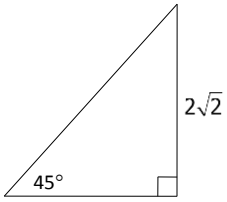

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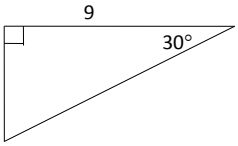

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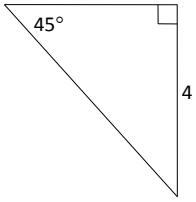

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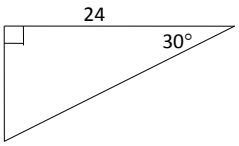

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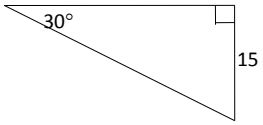

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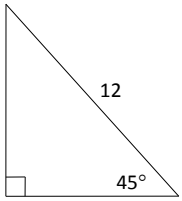

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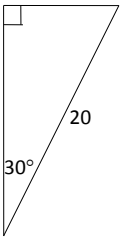

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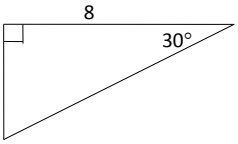

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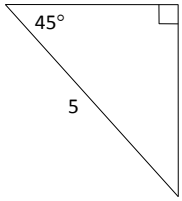
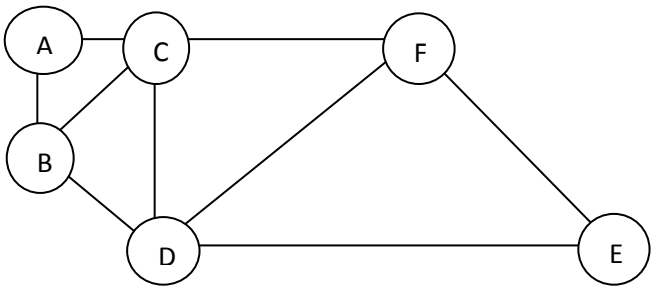
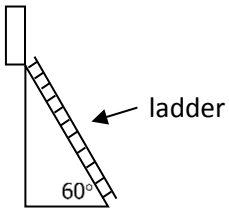


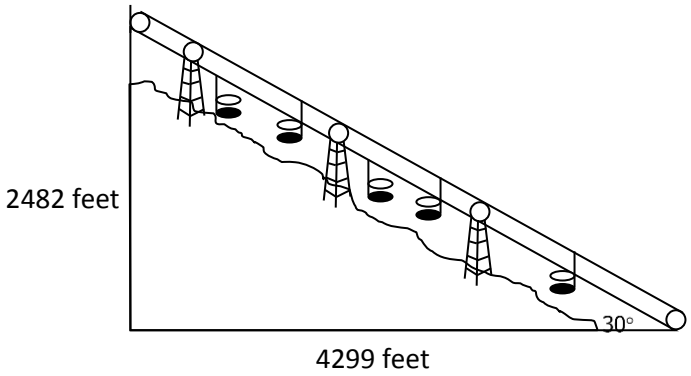
22) This toy is a series of isosceles right triangles. If $AB = 2$, find AC, BC, CD, CF, BD, DE, EF, and DF.



23) An extension ladder forming a 60° angle with the ground is placed against an outside wall. The top of the ladder touches a window sill that is 12 feet high. To what length is the ladder extended? How far from the wall is the bottom of the ladder? Give answers in radical form and decimal to nearest tenth.



Use the picture of the ski lift for 24-26



24) A ski lift is shown at the right. Find the distance from the bottom of the lift to the top of the lift.

25) In the ski lift, find the length of the shortest cable that could be used. Assume that there is no length around the pulleys.

26) In the ski lift, the actual length of the cable is 10,120 feet. About how much slack is in the cable?

8.8 Review Special Right Triangles

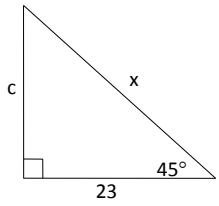
Name _____

1. What is the ratio of all 30-60-90 triangles? 1. _____

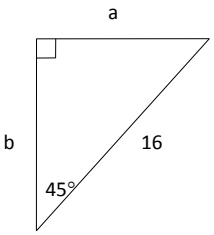
2. What is the ratio of all 45-45-90 triangles? 2. _____

Find the missing sides for each of the following. Leave answer in simplified and rationalized.

3.



4.



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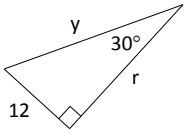

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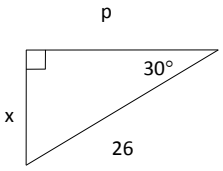

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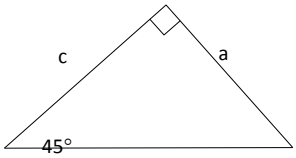
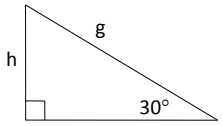


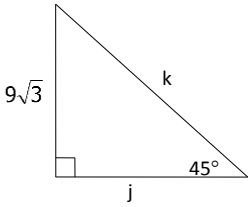
$17\sqrt{2}$

8.



$14\sqrt{3}$

9.



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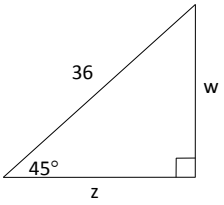

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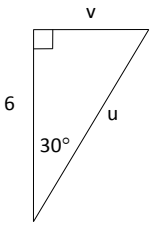

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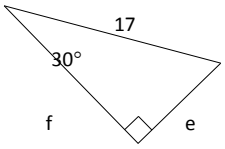

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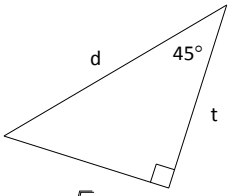
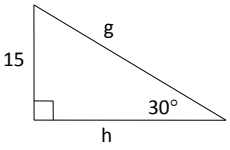


$38\sqrt{2}$

14.



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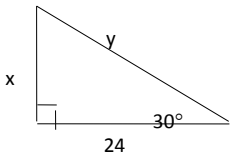

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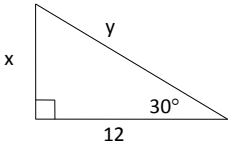

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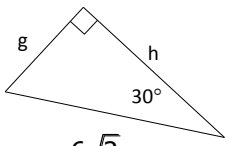


$6\sqrt{2}$

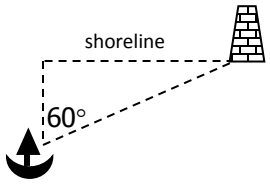
18. Find the length of the diagonal of a square with a side of length $13\sqrt{2}$. Draw a diagram. 18. _____

19. Find the length of a side of a square with a diagonal length of 100. Draw a diagram. 19. _____

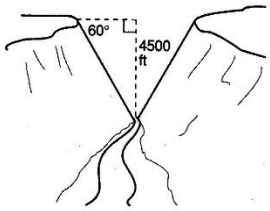
20. The length of a side of an equilateral triangle is 12. Find the length of the altitude. 20. _____

21. The length of the altitude of an equilateral triangle is 9. Find the length of a side. 21. _____

22. At a point 500 miles north of a ship, the shoreline runs east and west. West of that point, the navigator sights a light house at an angle of **60°**. How far is the ship from the lighthouse? 22. _____



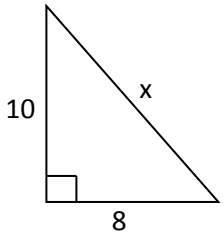
23. A point on the edge of a symmetrical canyon is 4500 ft above a river that cuts through The canyon floor. The angle of depression from each side of the canyon to the canyon floor is 60° Find the length of the canyon wall (from the edge to the river).



23. _____

Use Pythagorean Theorem on the following triangles.

24.



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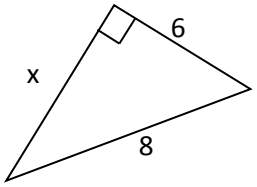
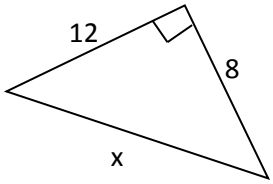


26.

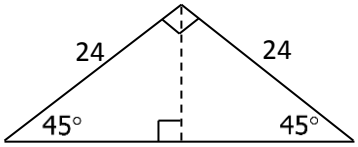


Decide if the segment lengths form a triangle. If so, would the triangle be acute, right, or obtuse?

27. 14, 21, and 25 28. 11, 19, and 32 29. 3, 9, and $3\sqrt{11}$ 30. $4\sqrt{21}$, 25, and 31

31. A ladder leaning against a wall makes a $60°$ angle with the ground. The base of the ladder is 3 m from the building. How high above the ground is the top of the ladder? 31. _____

32. The roof of a house is the shape of an isosceles right triangle. The slope of the roof is 24 feet, what is the height of the roof? 32. _____

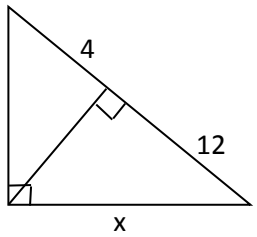


Find the geometric mean of the following numbers.

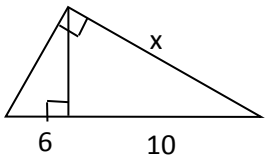
33. 12 and 6 34. 8 and 6 35. 10 and 12 36. 5 and 30

Use the special properties of an altitude to the hypotenuse to answer the following questions.
Pick 3 problems and find the area of the triangle.

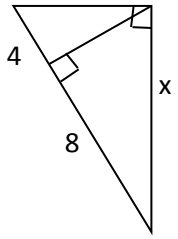
37. Find x



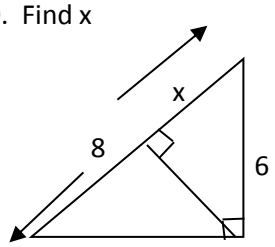
38. Find x



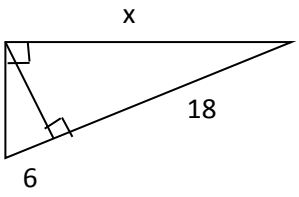
39. Find x



40. Find x



41. Find x



42. Find x