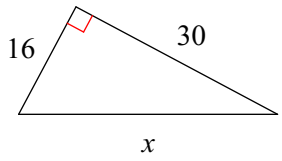
Secondary Math 2 Name_____ Period_____

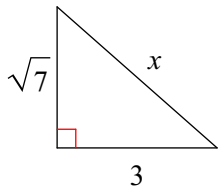
Unit 11--Trigonometry Review

Find the length of the missing side of each triangle. Leave your answers in simplest radical form (simplified roots).

1)



2)



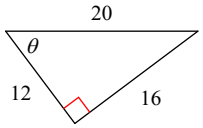
Find the distance between each pair of points. Round your answers to the nearest tenth, if necessary.

3) $(-8, 2)$ and $(7, -6)$

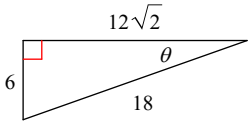
4) $(0, -3)$ and $(-2, -5)$

Find the value of the requested trigonometric function.

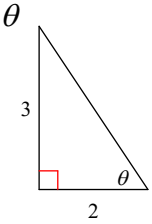
5) tan θ



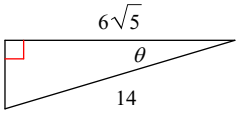
6) sin θ



7) cos θ

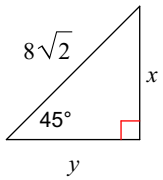


8) sin θ



Find the missing side lengths using the ratios in special right triangles. Leave your answers as radicals in simplest form (simplified roots).

9)



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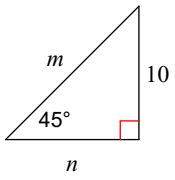

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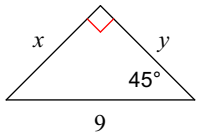

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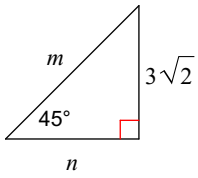

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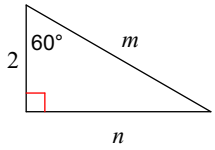

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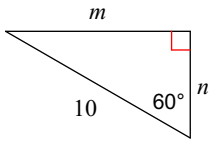

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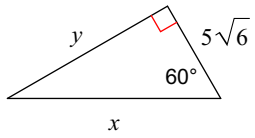

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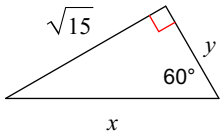
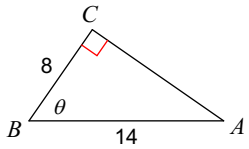


Find the measure of each angle indicated. Round to the nearest tenth.

17)



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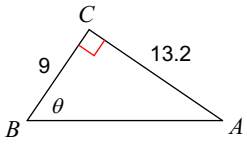

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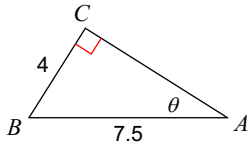
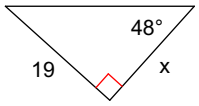


Write an equation that can be used to find the missing side length. Then solve the equation. Round your answers to the nearest tenth.

20)



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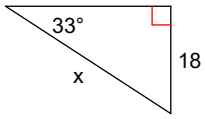

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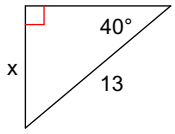

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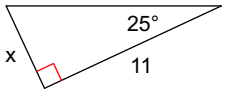

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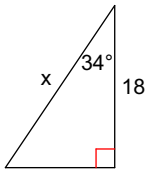

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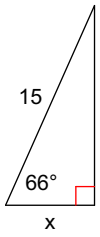
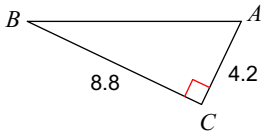


Solve each triangle. Round answers to the nearest tenth.

26)



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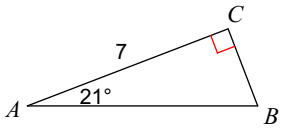

1) Draw and label a triangle to illustrate the situation. 2) Find the length of the missing side. 3) Give the values of the requested functions. 4) Give the measure of the angle to the nearest tenth of a degree.

28) $\cos \theta = \frac{12}{13}$. Find $\sin \theta$, $\tan \theta$, and the measure of θ.

29) $\tan \theta = \frac{24}{7}$. Find $\sin \theta$, $\cos \theta$, and the measure of θ.

Draw a diagram to help you solve each problem. Then write an equation and give your answer to the nearest tenth. Don't forget to include the correct units.

30) A 20-ft. tall ladder is leaning against a building. It makes a 65° angle with the ground. How far up the building does it reach?

31) A baseball diamond is a square with sides of length 90 ft. The catcher attempts to catch a runner stealing by throwing from home plate to second base. How long is the throw?

32) A photographer wishes to take a picture of a bird in a tree. She is 15 feet from the base of the tree and is shooting the picture at a 50° angle of elevation. How far is the camera from the bird?

33) The chairlift at a ski resort has a vertical rise of 3900 ft. If the length of the ride is 6350 ft., what is the angle of elevation of the lift?