

9.2 - 9.5.D1 ~ Inverse Trig Functions & Angles Past due on _____ Period _____

Use the inverse trigonometric functions to calculate the measure of the indicated angle to the nearest tenth of a degree.

1) $\tan Y = 1.7321$

2) $\cos A = 0.9511$

3) $\cos U = 0.2250$

4) $\sin C = 0.2924$

5) $\sin V = 0.5592$

6) $\cos X = 0.3420$

7) $\tan W = 0.2867$

8) $\sin B = 0.9986$

Write each trigonometric function in terms of its cofunction.

9) $\sin 17^\circ$

10) $\cos 70^\circ$

11) $\sin 87^\circ$

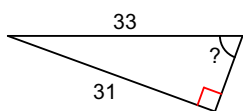
12) $\sin 34^\circ$

13) $\cos 37^\circ$

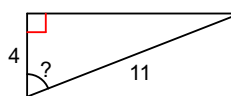
14) $\sin 8^\circ$

Write a trigonometric ratio and use inverse trigonometric functions to find the measure of the indicated angle rounded to the nearest tenth of a degree.

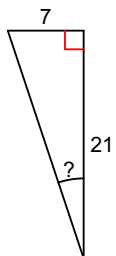
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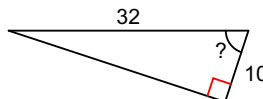
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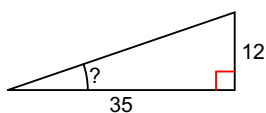
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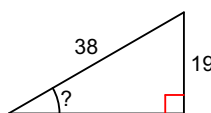
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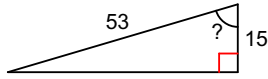
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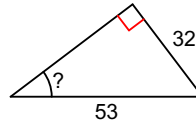
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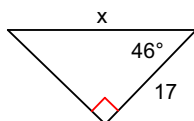


Draw and label a diagram that represents each situation. Then write a trigonometric ratio and use an inverse trigonometric function to find the measure of the angle described.

- 23) A park has a skateboard ramp with a length of 14.2 feet. Its height is 5.9 feet. Calculate the measure of the angle the ramp makes with the ground to the nearest tenth of a degree.
- 24) A lifeguard is sitting on an observation chair at a pool. The lifeguard's eye level is 6.2 feet from the ground. The chair is 15.4 feet from a swimmer. Calculate the measure of the angle formed when the lifeguard looks down at the swimmer.
- 25) Remi is walking her dog. The dog's leash is 12 feet long and is attached to the dog walking 10 feet (horizontally) from Remi's hand. What is the angle formed by the leash and the horizontal formed by the dog's collar?

Review ~ Set up and solve a trigonometric equation to find the length of x . Prove an exact answer - solve for x - and an approximation rounded to the nearest hundredth.

26)



27)

