

BOX-ALL-ANSWERS and PLACE THEM ON THE SIDE ANSWER LINE

In the problem, t is a real number and $P = (x, y)$ is the point on the unit circle that corresponds to t . Find the exact value of the indicated trigonometric function of t .

1) $(\frac{3}{8}, -\frac{\sqrt{55}}{8})$ Find $\csc t$.

1) _____

Find the exact value of the indicated trigonometric function of θ .

2) $\tan \theta = -\frac{10}{7}$, θ in quadrant II. Find $\cos \theta$.

2) _____

Solve the problem.

- 3) A surveyor is measuring the distance across a small lake. He has set up his transit on one side of the lake 140 feet from a piling that is directly across from a pier on the other side of the lake. From his transit, the angle between the piling and the pier is 30° . What is the distance between the piling and the pier to the nearest foot?

3) _____

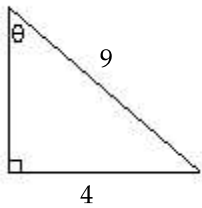
- 4) A twenty-five foot ladder just reaches the top of a house and forms an angle of 41.5° with the wall of the house. How tall is the house? Round your answer to the nearest 0.1 foot.

4) _____

5) From the edge of a 1000-foot cliff, the angles of depression to two cars in the valley below are 21° and 28° . How far apart are the cars? Round your answers to the nearest 0.1 ft. 5) _____

6) A tree casts a shadow of 26 meters when the angle of elevation of the sun is 24° . Find the height of the tree to the nearest meter. 6) _____

Find the value of the indicated trigonometric function of the angle θ in the figure. Give an exact answer with a rational denominator.



7) _____

Find $\cot \theta$.

8) Determine the sine function with Amplitude: 2, Period: 6π , Phase Shift: $\frac{\pi}{6}$ 8) _____

$y =$