

Calculator OK!

For 1-4, convert to degrees or radians. Round to the nearest hundredth where necessary.

1) 140°

2) 82°

3) $\frac{8\pi}{9}$

4) 5 radians

For #5, assume that θ is an acute angle in a right triangle satisfying the given conditions. Evaluate the remaining trigonometric functions.

5) $\sec \theta = \frac{17}{5}$

$\sin \theta =$ _____

$\cos \theta =$ _____

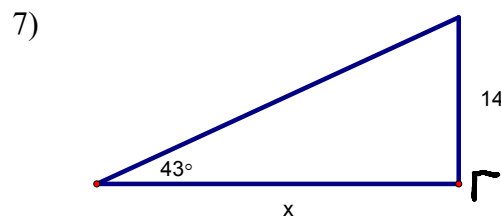
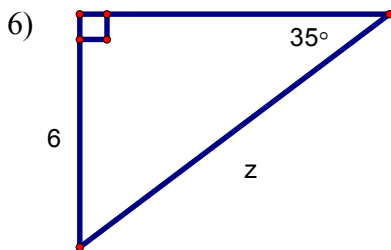
$\tan \theta =$ _____

$\csc \theta =$ _____

$\cot \theta =$ _____

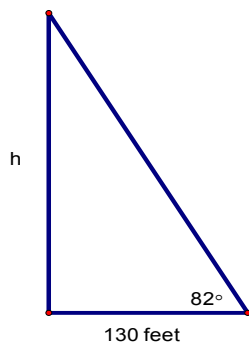
What does the angle measure (in degrees)? _____

For 6-7, solve for the variable shown.



For #8, use the diagram and information below to set up and solve the appropriate equation.

8) The Chrysler Building in New York City was the tallest building in the world at the time it was built. It casts a shadow approximately 130 feet long on the street when the sun's rays form an 82° angle with the earth. How tall is the building?



NO CALCULATOR!

Find the exact value of each trig function (NO DECIMAL ANSWERS).

9. $\sin 4\pi$

10. $\cos 120^\circ$

11. $\tan \frac{-5\pi}{3}$

12. $\sec -210^\circ$

13. $\cos 420^\circ$

14. $\cot \frac{7\pi}{4}$

15. $\cos \pi$

16. $\sec -120^\circ$

17. $\sin -\frac{5\pi}{6}$

Find a positive and negative angle coterminal with the given angle.

18. 420°

19. $\frac{3\pi}{4}$

20. $\frac{7\pi}{6}$