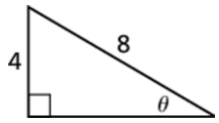
Alg2 9.1-9.3 Review

Name _____ **Date** _____

Evaluate the three trigonometric functions of the angle θ, where θ is an acute angle.

1.

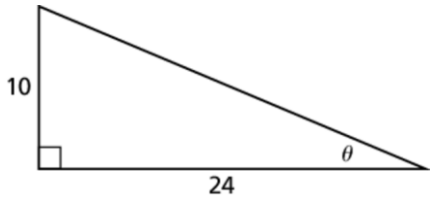


$\sin\theta$ = _____

$\cos\theta$ = _____

$\tan\theta$ = _____

2.



$\sin\theta$ = _____

$\cos\theta$ = _____

$\tan\theta$ = _____

Let θ be an acute angle of a right triangle. Evaluate the other two trigonometric functions of θ.

3. $\sin\theta = \frac{4}{11}$

$\cos\theta$ = _____

$\tan\theta$ = _____

4. $\cos\theta = \frac{5}{6}$

$\sin\theta$ = _____

$\tan\theta$ = _____

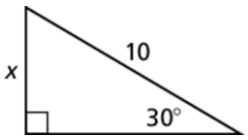
5. $\tan\theta = \frac{3}{4}$

$\sin\theta$ = _____

$\cos\theta$ = _____

Find the value of *x* for the right triangle.

6.



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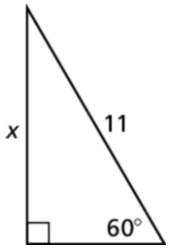

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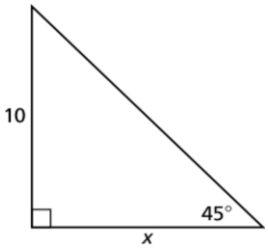


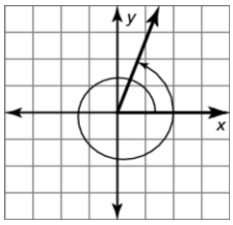
9. A cable is attached to the top of a pole and mounted to the ground 3 feet from the base of the pole. The angle of elevation from the mounting to the top of the pole is $78°$. Estimate the height of the pole. Round your answer to the nearest tenth.

10. A parasailor is attached to a boat with a rope 80 feet long. The angle of elevation from the boat to the parasailor is $36°$. Estimate the parasailor's height above the boat. Round your answer to the nearest tenth.

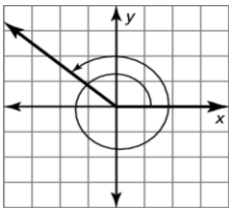
Match the angle measure with the angle.

11. $500°$ **12.** $\frac{7\pi}{3}$ **13.** $-130°$

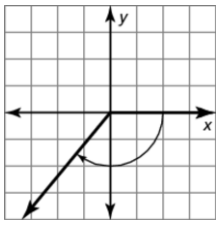
A.



B.



C.



Find one positive angle and one negative angle that are coterminal with the given angle.

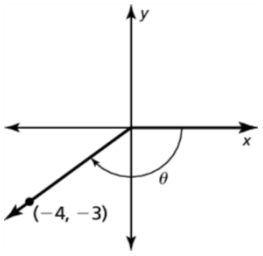
14. $75°$ **15.** $-430°$ **16.** $\frac{7\pi}{3}$

Convert the degree measure to radians or the radian measure to degrees.

17. $200°$ **18.** $1°$ **19.** $\frac{3\pi}{10}$

Evaluate the three trigonometric functions of θ.

20.

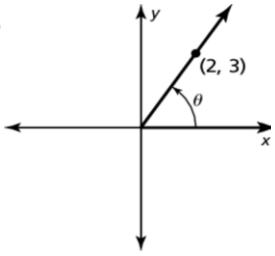


$\sin\theta =$ _____

$\cos\theta =$ _____

$\tan\theta =$ _____

21.



$\sin\theta =$ _____

$\cos\theta =$ _____

$\tan\theta =$ _____

Find the angle's reference angle.

22. $-250°$ **23.** $\frac{11\pi}{6}$ **24.** $-310°$ **25.** $240°$

Evaluate the function without using a calculator.

26. $\tan\frac{5\pi}{4}$ **27.** $\sin 315°$ **28.** $\cos(-210°)$

29. $\sin 120°$ **30.** $tan180°$ **31.** $\cos(-180°)$