

**Practice B**

For use with pages 792–798

Evaluate the expression without using a calculator. Give your answer in both radians and degrees.

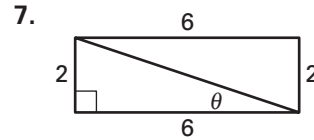
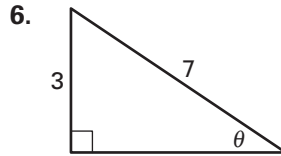
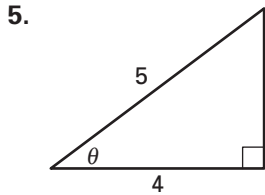
1.  $\cos^{-1}\left(-\frac{1}{2}\right)$

2.  $\sin^{-1}\left(-\frac{\sqrt{2}}{2}\right)$

3.  $\tan^{-1}\left(-\frac{\sqrt{3}}{3}\right)$

4.  $\tan^{-1} \sqrt{3}$

Find the measure of the angle  $\theta$ . Round to three significant digits.



Use a calculator to evaluate the expression in both radians and degrees. Round to three significant digits.

8.  $\cos^{-1} 0.14$

9.  $\sin^{-1} 0.22$

10.  $\sin^{-1} (-0.6)$

11.  $\tan^{-1} (-0.4)$

Solve the equation for  $\theta$ . Round to three significant digits.

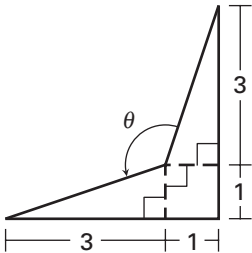
12.  $\tan \theta = 5.3; 180^\circ < \theta < 270^\circ$

13.  $\sin \theta = -0.89; 270^\circ < \theta < 360^\circ$

14.  $\cos \theta = -0.6; 90^\circ < \theta < 180^\circ$

15.  $\tan \theta = 1.53; 0^\circ < \theta < 90^\circ$

16. **Geometry** Find the measure of angle  $\theta$  in the diagram below. Round the result to three significant digits.



17. **Video Games** In a video game, a target appears on the left side of the television screen and moves at the rate of 2 inches per second across the screen. You fire a laser beam that travels 10 inches per second. If the player tries to hit the target as soon as it appears, at what angle should the laser beam be aimed?

