

Practice B

For use with pages 784–790

Use the given point on the terminal side of an angle θ in standard position. Evaluate the six trigonometric functions of θ .

1. $(4, -9)$ 2. $(-4, 5)$ 3. $(8, 6)$ 4. $(-5, -8)$

Evaluate the six trigonometric functions of the quadrantal angle θ .

5. $\theta = -270^\circ$ 6. $\theta = -90^\circ$ 7. $\theta = -180^\circ$

Sketch the angle. Then find its reference angle.

8. -225° 9. 65° 10. 220° 11. -155°
 12. $-\frac{2\pi}{3}$ 13. $\frac{7\pi}{3}$ 14. $-\frac{8\pi}{3}$ 15. $\frac{12\pi}{5}$

Evaluate the function without using a calculator.

16. $\tan 135^\circ$ 17. $\sin(-60^\circ)$ 18. $\cos 210^\circ$ 19. $\sec(-315^\circ)$
 20. $\cot \frac{7\pi}{6}$ 21. $\csc \frac{2\pi}{3}$ 22. $\tan \frac{7\pi}{3}$ 23. $\sin\left(-\frac{3\pi}{4}\right)$

Use a calculator to evaluate the function. Round the result to four decimal places.

24. $\sin 18^\circ$ 25. $\sec 29^\circ$ 26. $\cos\left(-\frac{10\pi}{3}\right)$ 27. $\csc \frac{18\pi}{5}$

28. **Critical Thinking** Your friend used a calculator to evaluate $\sin 10^\circ$ and obtained -0.544 . How can you tell this is incorrect? What did your friend do wrong?

29. **Baseball** You are at bat and hit the baseball so that it has an initial velocity of 100 feet per second. Approximately how far will the ball travel horizontally if the angle of elevation is 40° ? 45° ? 50° ?