

# 14 Trigonometric Graphs, Identities, and Equations



P.1.A

14.1 Graph Sine, Cosine, and Tangent Functions

2A.4.B

14.2 Translate and Reflect Trigonometric Graphs

P.2.C

14.3 Verify Trigonometric Identities

2A.2.A

14.4 Solve Trigonometric Equations

P.3.B

14.5 Write Trigonometric Functions and Models

P.3.A

14.6 Apply Sum and Difference Formulas

P.3.A

14.7 Apply Double-Angle and Half-Angle Formulas

## Before

In Chapter 13, you learned the following skills, which you'll use in Chapter 14: evaluating trigonometric functions, finding reference angles, and evaluating inverse trigonometric functions.

## Prerequisite Skills

### VOCABULARY CHECK

Copy and complete the statement.

1. The **sine** of  $\theta$  is  $\underline{\quad}$ .
2. The **cosine** of  $\theta$  is  $\underline{\quad}$ .
3. The **tangent** of  $\theta$  is  $\underline{\quad}$ .



### SKILLS CHECK

Evaluate the expression. (Review p. 866 for 14.1.)

- |                    |                         |                         |
|--------------------|-------------------------|-------------------------|
| 4. $\sin 45^\circ$ | 5. $\cos \frac{\pi}{2}$ | 6. $\tan \frac{\pi}{3}$ |
|--------------------|-------------------------|-------------------------|

Sketch the angle. Then find its reference angle. (Review p. 866 for 14.1.)

- |                 |                |                      |
|-----------------|----------------|----------------------|
| 7. $-165^\circ$ | 8. $285^\circ$ | 9. $-\frac{5\pi}{8}$ |
|-----------------|----------------|----------------------|

Evaluate the expression. (Review p. 875 for 14.4.)

- |                                    |                   |                          |
|------------------------------------|-------------------|--------------------------|
| 10. $\sin^{-1} \frac{\sqrt{3}}{2}$ | 11. $\cos^{-1} 1$ | 12. $\tan^{-1} \sqrt{3}$ |
|------------------------------------|-------------------|--------------------------|



TEXAS

@HomeTutor Prerequisite skills practice at classzone.com