

13 Trigonometric Ratios and Functions



a.4

13.1 Use Trigonometry with Right Triangles

a.5

13.2 Define General Angles and Use Radian Measure

P.3.A

13.3 Evaluate Trigonometric Functions of Any Angle

2A.4.C

13.4 Evaluate Inverse Trigonometric Functions

P.3.E

13.5 Apply the Law of Sines

P.3.E

13.6 Apply the Law of Cosines

Before

In previous courses and in previous chapters, you learned the following skills, which you'll use in Chapter 13: using the Pythagorean theorem, solving equations using inverse functions, and finding angle measures in triangles.

Prerequisite Skills

VOCABULARY CHECK

Copy and complete the statement.

1. The **reciprocal** of $\frac{4}{5}$ is ?.
2. Functions f and g are **inverses** of each other if ? and ?.
3. An equation of the **circle** with center $(0, 0)$ and a radius of 1 unit is ?.

SKILLS CHECK

A right triangle has legs with lengths a and b and a hypotenuse with length c . Find the unknown side length. (Review p. 995 for 13.1.)

4. $a = 8, b = 10$ 5. $a = 2.5, c = 6.5$ 6. $b = 9, c = 11$

Solve the equation. (Review p. 515 for 13.4.)

7. $4^x - 5 = 3$ 8. $\log_2 x = -1$ 9. $-5 + 2 \ln 3x = 20$

The measures of the angles of a triangle are given. Find the value of x . (Review p. 995 for 13.5, 13.6.)

10. $x^\circ, 65^\circ, 55^\circ$ 11. $90^\circ, x^\circ, x^\circ$ 12. $41^\circ, 107^\circ, x^\circ$



TEXAS

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Prerequisite skills practice at classzone.com