

PREVIEW

What's the chapter about?

Chapter 13 is about **trigonometry**. In Chapter 13 you'll learn

- how to evaluate trigonometric functions and inverse trigonometric functions.
- how to find side lengths, angle measures, and areas of triangles.
- how to use parametric equations.

KEY VOCABULARY

► Review

- reciprocal, p. 5
- inverse functions, p. 422

► New

- sine, p. 769
- cosine, p. 769

- tangent, p. 769
- cosecant, p. 769
- secant, p. 769
- cotangent, p. 769
- radian, p. 777
- sector, p. 779

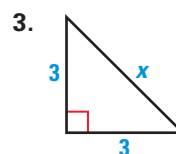
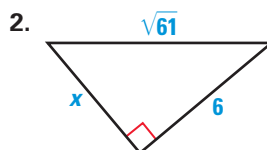
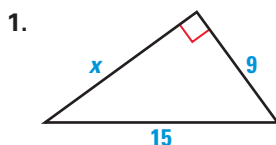
- inverse sine, p. 792
- inverse cosine, p. 792
- inverse tangent, p. 792
- law of sines, p. 799
- law of cosines, p. 807
- parametric equations, p. 813

PREPARE

Are you ready for the chapter?

SKILL REVIEW Do these exercises to review key skills that you'll apply in this chapter. See the given **reference page** if there is something you don't understand.

Find the missing side length. (Skills Review, p. 917)



Simplify the expression. (Review Example 1, p. 264)

4. $\sqrt{96}$

5. $\sqrt{18}$

6. $\sqrt{200}$

7. $\frac{2}{\sqrt{2}}$

8. $\frac{2}{\sqrt{3}}$

9. $\sqrt{\frac{3}{4}}$

Solve the equation. (Review Example 4, p. 569)

10. $\frac{3}{x} = \frac{6}{x-1}$

11. $\frac{4x}{5} = \frac{5}{x}$

12. $\frac{7}{4} = \frac{x}{8}$

13. $\frac{x+3}{x} = \frac{7}{10}$

STUDENT HELP

► Study Tip

"Student Help" boxes throughout the chapter give you study tips and tell you where to look for extra help in this book and on the Internet.

STUDY STRATEGY

Here's a study strategy!

Draw Diagrams

Drawing a diagram can help you figure out how to solve a problem from the given information. A diagram can help you with almost every problem (not just word problems) in this chapter. Whenever you are given lengths, angle measures, points, or ratios, try drawing and labeling a diagram.