

# Get Ready!

Lesson 4-5

## Solving Quadratic Equations

Solve each equation.

1.  $4x^2 = 25$

2.  $x^2 - 23 = 0$

3.  $3x^2 = 80$

4.  $8x^2 - 44 = 0$

5.  $0.5x^2 = 15$

6.  $6x^2 - 13 = 11$

Lesson 6-7

## Finding the Inverse of a Function

For each function  $f$ , find  $f^{-1}$  and the domain and range of  $f$  and  $f^{-1}$ . Determine whether  $f^{-1}$  is a function.

7.  $f(x) = 5x + 2$

8.  $f(x) = \sqrt{x+3}$

9.  $f(x) = \sqrt{3x-4}$

10.  $f(x) = \frac{5}{x}$

11.  $f(x) = \frac{10}{x-1}$

12.  $f(x) = \frac{10}{x} - 1$

Lesson 7-5

## Solving Exponential and Logarithmic Equations

Solve each equation.

13.  $4^x = \frac{1}{8}$

14.  $\log 5x + 1 = -1$

15.  $7^{3x} = 500$

16.  $\log 3x + \log x = 9$

17.  $\log(4x+3) - \log x = 5$

18.  $3^x = 243$

Lessons 13-4,  
13-5, and 13-6

## Evaluating Trigonometric Functions

For each value of  $\theta$ , find the values of  $\cos \theta$ ,  $\sin \theta$ , and  $\tan \theta$ . Round your answers to the nearest hundredth.

19.  $48^\circ$

20.  $-105^\circ$

21.  $16^\circ$

22.  $\frac{5\pi}{6}$



## Looking Ahead Vocabulary

23. The equation  $1 + \tan^2 \theta = \sec^2 \theta$  is a *trigonometric identity*. Use what you know about identities to make a conjecture about this equation.
24. The Pythagorean Theorem is a special case of the *Law of Cosines*. What do you suppose you will use the Law of Cosines to find?