

Name \_\_\_\_\_

Date \_\_\_\_\_

Class \_\_\_\_\_

LESSON  
9-9**Practice**  
**The Quadratic Formula and the Discriminant**

Solve using the quadratic formula.

1.  $x^2 + x = 12$

2.  $4x^2 - 17x - 15 = 0$

3.  $2x^2 - 5x = 3$

4.  $3x^2 + 14x - 5 = 0$

Find the number of real solutions of each equation using the discriminant.

5.  $x^2 + 25 = 0$

6.  $x^2 - 11x + 28 = 0$

7.  $x^2 + 8x + 16 = 0$

Solve using any method.

8.  $x^2 + 8x + 15 = 0$

9.  $x^2 - 49 = 0$

10.  $6x^2 + x - 1 = 0$

11.  $x^2 + 8x - 20 = 0$

12. In the past, professional baseball was played at the Astrodome in Houston, Texas. The Astrodome has a maximum height of 63.4 m. The height of a baseball  $t$  seconds after it is hit straight up in the air with a velocity of 45 ft/s is given by  $h = -9.8t^2 + 45t + 1$ . Will a baseball hit straight up with this velocity hit the roof of the Astrodome? Use the discriminant to explain your answer.