Name _____ Date _____

Extra Practice

In Exercises 1–3, solve the equation using the Quadratic Formula. Use a graphing calculator to check your solution(s).

1. $x^2 - 7x - 18 = 0$ **2.** $w^2 = 4w - 1$ **3.** $-7z = -4z^2 - 3$

In Exercises 4–6, find the discriminant of the quadratic equation and describe the number and type of solutions of the equation.

4. $b^2 + 34b + 289 = 0$ **5.** $x^2 = 3 - 8x$ **6.** $4q^2 + 1 = 3q$

7. A baseball player hits a foul ball straight up in the air from a height of 4 feet off the ground with an initial velocity of 85 feet per second.

    a. Write a quadratic function that represents the height h of the ball t seconds after it hits the bat.

    b. When is the ball 110 feet off the ground? Explain your reasoning.

    c. The catcher catches the ball 6 feet from the ground. How long is the ball in the air?