9-1 Additional Practice
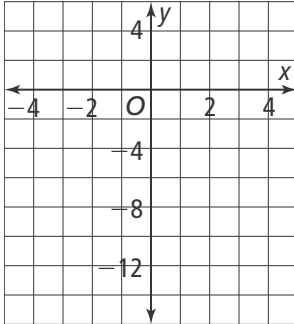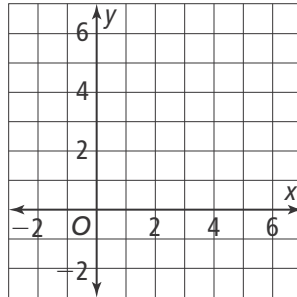
Solving Quadratic Equations Using Graphs and Tables

Solve each equation by graphing.
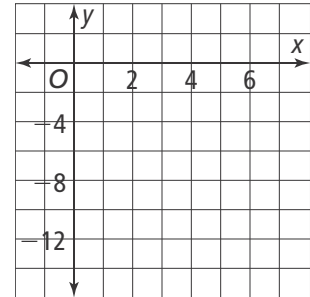
1. $x^2 + x - 12 = 0$

2. $x^2 + 4 = 4x$

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

Use a table to find the solutions for each equation. You may use a calculator. For approximate solutions, use the average rounded to the nearest tenth of the two consecutive x-values for which the sign of the y-values changes.

4. $4x^2 - 36 = 0$

5. $x^2 + 4x = 5$

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

7. $2x^2 - 3x + 1 = 0$

8. $x^2 + 3x - 6 = 0$

9. $4x^2 + 20x + 25 = 0$

10. Armando kicks a football into the air. The equation $f(x) = -6x^2 + 38x + 0.25$ models the height of the football from the ground, in feet, with respect to the time x, in seconds. Use a graph or table to estimate the time for the ball to return to the ground after being kicked.

11. When using a table to find the solutions to a quadratic equation, how can you be sure you have found all the solutions?