

# Section 10.3

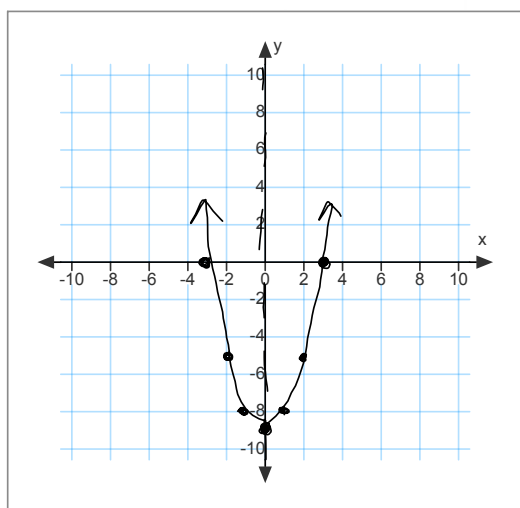
## Solving Quadratic Equations

## Solving a Quadratic Equation Graphically . . .

Solve each equation by graphing the related function. If the equation has no solution, write *no solution*.

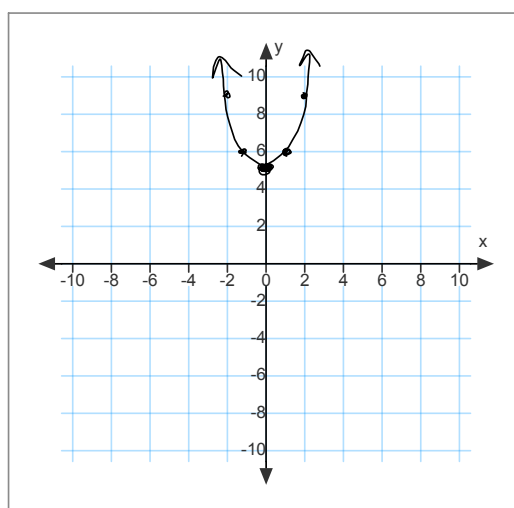
$$y = x^2 - 9$$

1.  $x^2 - 9 = 0$



$$x = 3, -3$$

2.  $x^2 + 5 = 0$



## Solving a Quadratic Equation Graphically . . .

With a calculator

$$y = x^2 + 3x - 4$$

$$x = 1$$

$$x = -4$$

## Solving a Quadratic Equation using Square Roots . . .

Solve each equation by finding square roots. If the equation has no solution, write *no solution*.

12.  $m^2 - 225 = 0$

$$\begin{array}{r} +225 +225 \\ \sqrt{m^2} = \sqrt{225} \end{array}$$

$$m = 15, -15, m = \pm 15$$

13.  $4x^2 - 45 = 4$

$$\begin{array}{r} +45 +45 \\ \frac{4x^2}{4} = \frac{49}{4} \end{array}$$

$$\sqrt{x^2} = \sqrt{\frac{49}{4}} \quad x = \pm \frac{7}{2}$$

14.  $x^2 - 9 = -16$

$$\begin{array}{r} +9 +9 \\ \hline \end{array}$$

$$x^2 = -7$$

$$x^2 = 7$$

No Solution



Homework:

p. 567 (1 - 20 all)

#7 w/ Calc