

Exercise 9

In Exercises 7–16, sketch the graph of the equation by point plotting.

$$y = 4 - x^2$$

Solution

Evaluate y for several integer values of x .

$$x = -3 : y = 4 - (-3)^2 = -5$$

$$x = -2 : y = 4 - (-2)^2 = 0$$

$$x = -1 : y = 4 - (-1)^2 = 3$$

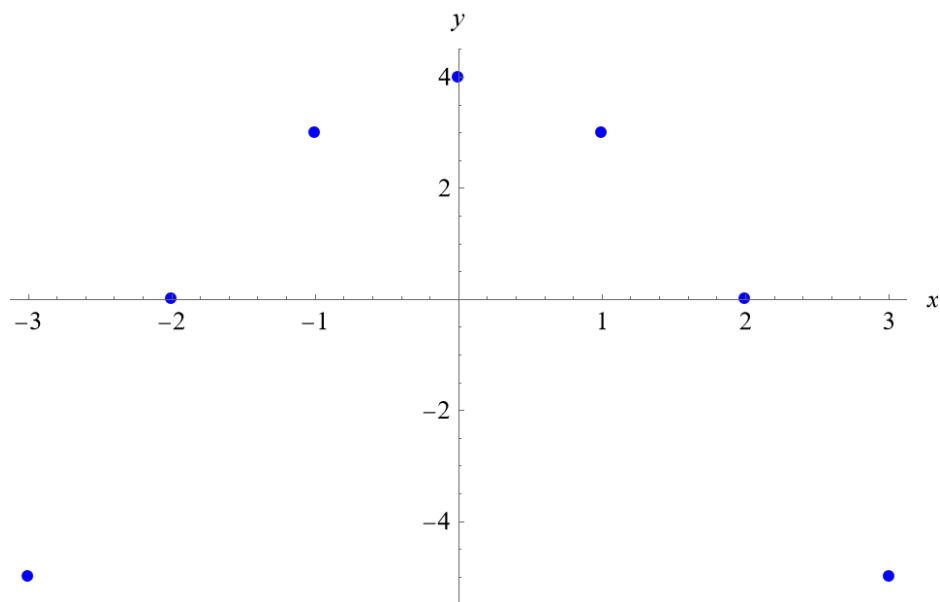
$$x = 0 : y = 4 - (0)^2 = 4$$

$$x = 1 : y = 4 - (1)^2 = 3$$

$$x = 2 : y = 4 - (2)^2 = 0$$

$$x = 3 : y = 4 - (3)^2 = -5$$

The points to plot are $(-3, -5)$, $(-2, 0)$, $(-1, 3)$, $(0, 4)$, $(1, 3)$, $(2, 0)$, and $(3, -5)$.



Connect the dots to get the graph of $y = 5 - 2x$.

