

Graph the given function using the given values of  $x$ . Also use the graph to determine the domain and range of the function.

$$f(x) = x^2 - 1; x = -3, -2, -1, 0, 1, 2, 3$$

**Solution:**

$$f(-3) = (-3)^2 - 1 = 8$$

$$f(-2) = (-2)^2 - 1 = 3$$

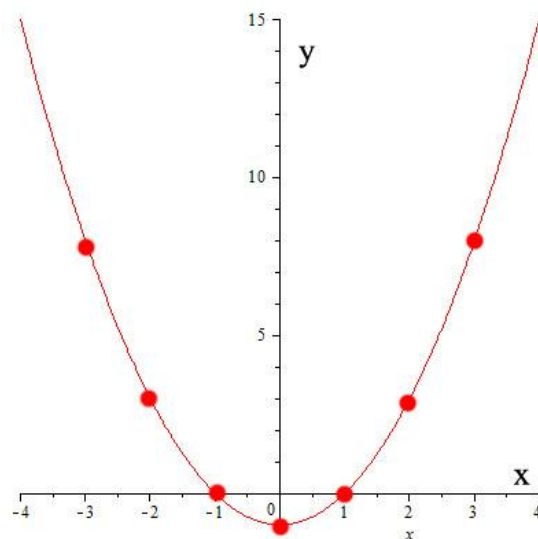
$$f(-1) = (-1)^2 - 1 = 0$$

$$f(0) = (0)^2 - 1 = -1$$

$$f(1) = (1)^2 - 1 = 0$$

$$f(2) = (2)^2 - 1 = 3$$

$$f(3) = (3)^2 - 1 = 8$$



Domain  $x \in R$

Range  $y \in [-1, +\infty)$