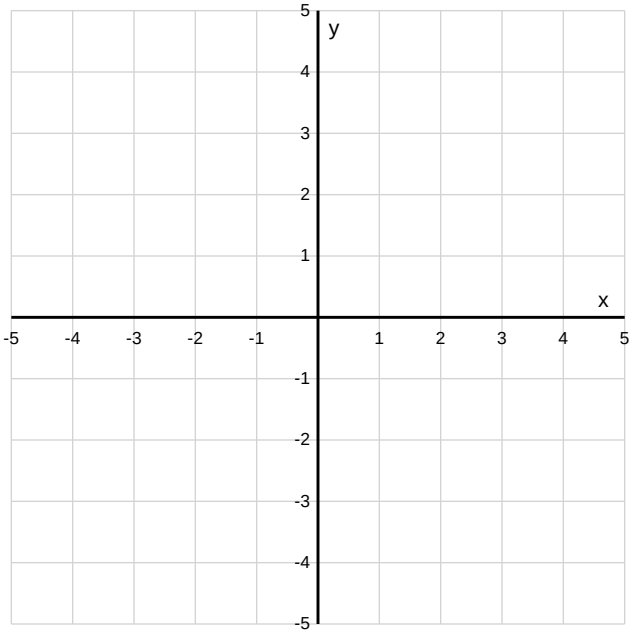
Graphing Quadratic Functions Printable Worksheet

Graph each quadratic function on the coordinate plane. Identify the vertex, axis of symmetry, and useful points. An answer key is included on the final page.

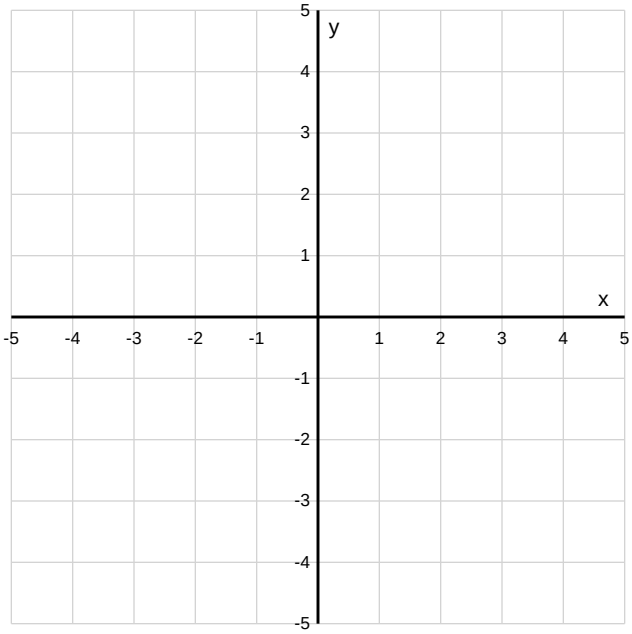
1. Graph the quadratic function:

$y = x^2$



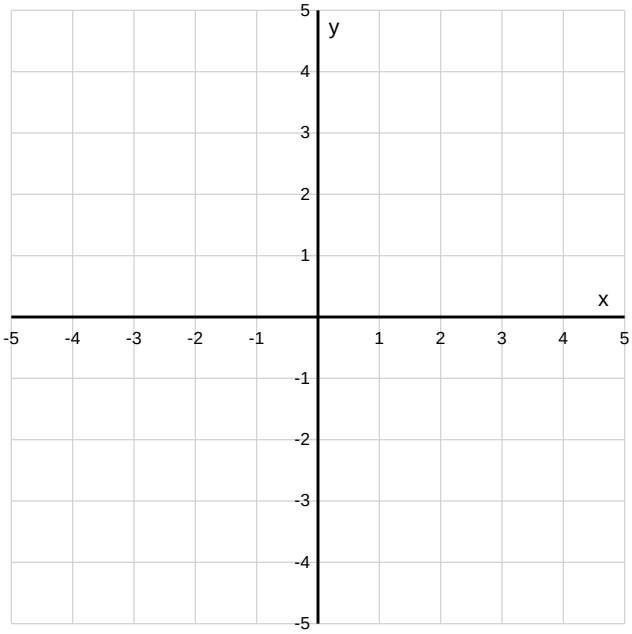
2. Graph the quadratic function:

$y = (x - 2)^2 + 1$



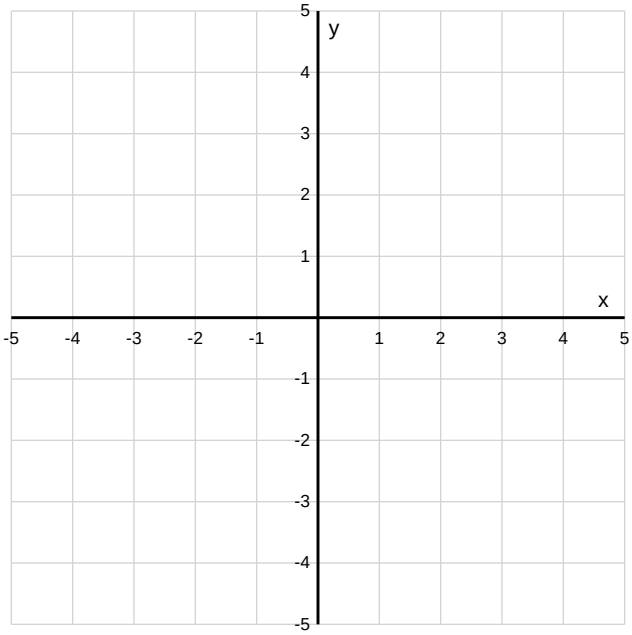
3. Graph the quadratic function:

$y = -(x + 1)^2 + 4$



4. Graph the quadratic function:

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



Answer Key

1. $y = x^2$

vertex (0, 0), axis x = 0, opens up, points (-2, 4), (-1, 1), (0, 0), (1, 1), (2, 4)

2. $y = (x - 2)^2 + 1$

vertex (2, 1), axis x = 2, opens up, points (0, 5), (1, 2), (2, 1), (3, 2), (4, 5)

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

vertex (-1, 4), axis x = -1, opens down, points (-3, 0), (-2, 3), (-1, 4), (0, 3), (1, 0)

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

vertex (2, -1), axis x = 2, opens up, x-intercepts (1, 0) and (3, 0)