

STANDARD FORM

$$y = ax^2 + bx + c$$

Step 1: Find the **axis of symmetry**. This is also the x-value of your vertex.

$$x = \frac{-b}{2a}$$

Step 2: Take the **x** and substitute back into $y = ax^2 + bx + c$

Vertex: (x, y)

Step 3: Use the 1, 3, 5... pattern to plot additional points.

Right: 1 Up: 1 x a

Right: 1 Up: 3 x a

Right: 1 Up: 5 x a

Step 4: Reflect the points over the **axis of symmetry**.

Step 5: Connect the points to form a u-shaped graph.

$$y = 2x^2 - 12x + 15$$

