

Standard Form

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

Step 1: Find the axis of symmetry. This is also the x-value of your vertex. $x = \frac{-b}{2a}$

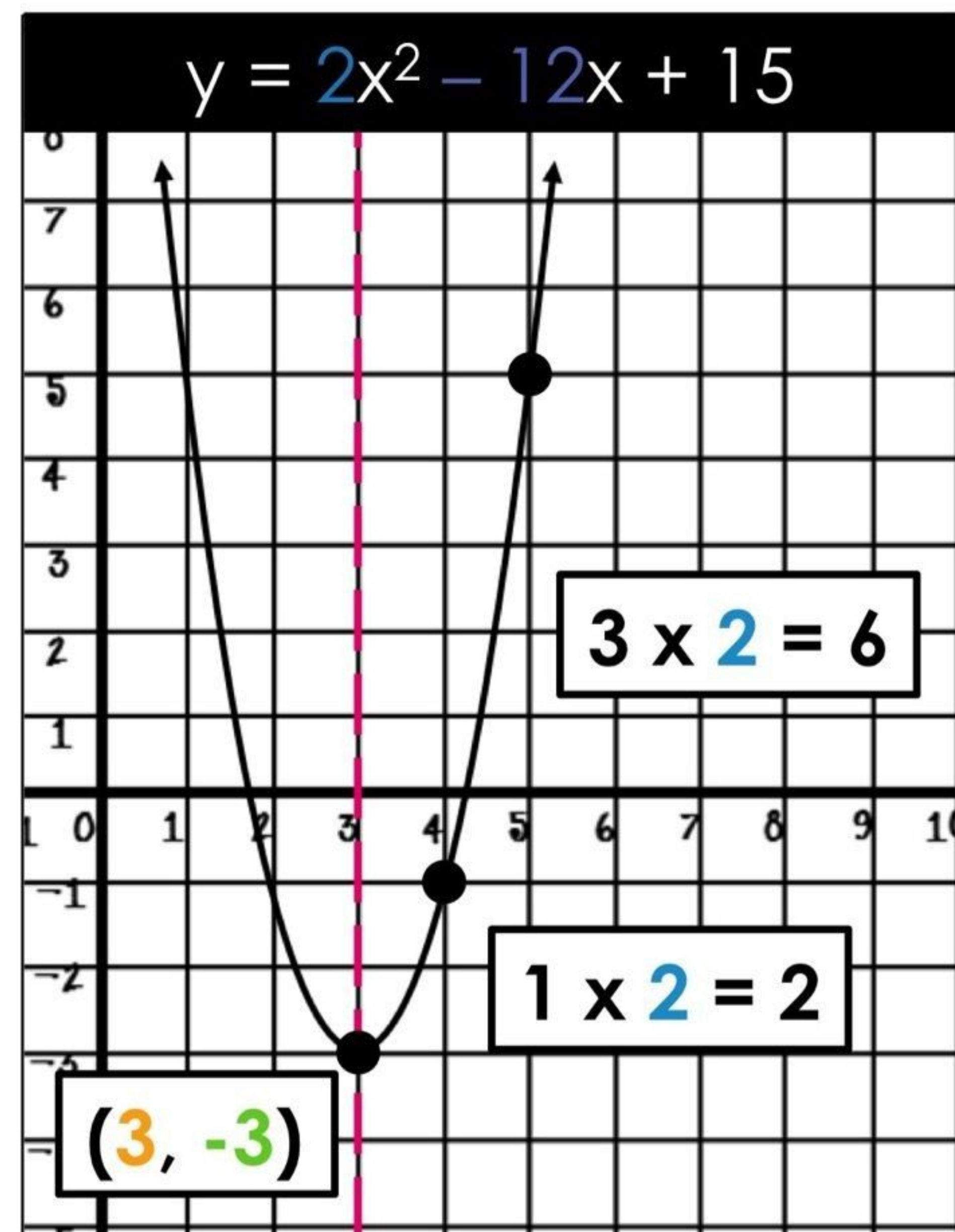
Step 2: Take the x and substitute back into $y = ax^2 + bx + c$ **Vertex: (x, y)**

Step 2: 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 3: Reflect the points over the **axis of symmetry**.

Step 4: Connect the points to form a u-shaped graph.



Graphing Quadratics

Vertex Form

$$y = a(x - h)^2 + k$$

Step 1: Identify the **vertex**. (h, k)

Step 2: 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 3: Reflect the points over the **axis of symmetry**.

Step 4: Connect the points to form a u-shaped graph.

