

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.

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

