

$(2, 3)$

Step 2: Write in vertex form

$$y = a(x - 2)^2 + 3$$

Step 3: Pick point on parabola
and plug into equation to solve
for "a"

$$1 = a(0 - 2)^2 + 3$$

$$1 = a(-2)^2 + 3$$

$$1 = 4a + 3$$

$$-2 = 4a$$

$$-2 \div 4 \rightarrow a = -\frac{1}{2}$$

