

How to Find the Vertex of a Parabola

STEP #1

Identify a and b

$$f(x) = ax^2 + bx + c$$

$$f(x) = \cancel{1}x^2 - \cancel{2}x + 3$$

STEP #2

Use the formula to solve for x

$$x = \frac{-b}{2a} \rightarrow x = \frac{-(-2)}{2(1)} \rightarrow x = 1$$

STEP #3

Input x-value into function to find y-value

$$\begin{aligned} f(1) &= (1)^2 - 2(1) + 3 \\ f(1) &= 1 - 2 + 3 = 2 \end{aligned}$$

