

Convert to Vertex Form:

2. $y = -2x^2 + 8x - 8$
 $a = -2$ $b = 8$ $c = -8$

Step 1: Find Vertex $(2, 0)$
 h k

Step 2: $a = -2$
 $\rightarrow h = 2$
 $k = 0$

Step 3: Plug a, h, and k into vertex form.

$$f(x) = -2(x - 2)^2 + 0$$
$$f(x) = -2(x - 2)^2$$

$f(x) = a(x - h)^2 + k$
Change It.. Keep It!

$$x = \frac{-b}{2a} = \frac{-8}{2(-2)} = \frac{-8}{-4} = 2$$

$$y = -2(2)^2 + 8(2) - 8$$
$$= -2(4) + 16 - 8$$
$$= -8 + 16 - 8 = 0$$