

① $y = 3(x-2)^2 + 4$

vertex: (2, 4)

② $y = (x+6)^2 - 3$

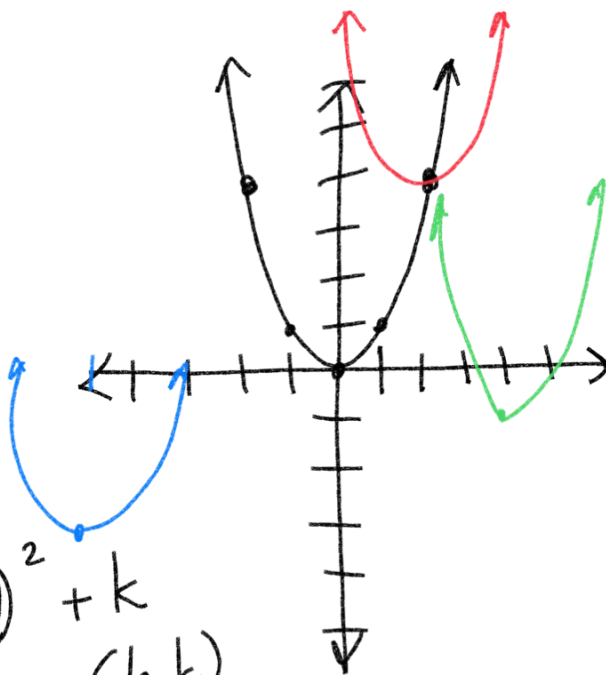
vertex: (-6, -3)

$y = (3x-12)^2 - 1$

$(3(x-4))^2 - 1$

vertex: (4, -1)

Vertex form: $y = a(x-h)^2 + k$
vertex: (h, k)



Standard form

$y = x^2 + 8x + 3$

vertex form:

$(\frac{8}{2})^2 = (4)^2 = 16$

1.) Isolate x^2

$(x^2 + 8x) + 3$

$\{y = x^2 + 4x - 8\}$

2.) Factor out coefficient of x^2

$(x^2 + 8x) + 3$

3.) $(\frac{b}{2})^2$

$(x^2 + 8x + 16) + 3 - 16$
 $(x+4)^2 - 13$

$$y = x^2 + 4x - 8$$

$$(x^2 + 4x) - 8$$

$$\left(\frac{4}{2}\right)^2 = (2)^2 = 4$$

$$(x^2 + 4x + 4) - 8 - 4$$

$\sqrt{x^2}$ points to x^2 , $\sqrt{4}$ points to 4 , and 2 is written below the x term.

$$(x+2) - 12$$

$$y = 2x^2 + 12x + 10$$

$$(2x^2 + 12x) + 10$$

$$\left(\frac{6}{2}\right)^2 = (3)^2 = 9$$

$$2(x^2 + 6x) + 10$$

$$2(x^2 + 6x + 9) + 10 - 9(2)$$

$$2(x^2 + 6x + 9) - 8$$

$$2(x+3)^2 - 8$$

$\sqrt{x^2}$ points to x^2 and $\sqrt{9}$ points to 9 , with a 2 written below the x term.

$$2(x+3)^2 - 8$$

HW
Online HW 20 } March 2nd
Quiz 20 }

HW/Quiz 19 Feb 22nd

No HW/Quiz 21