

Math-2 VOCAB 5-4 (Find Zeroes of Vertex Form)

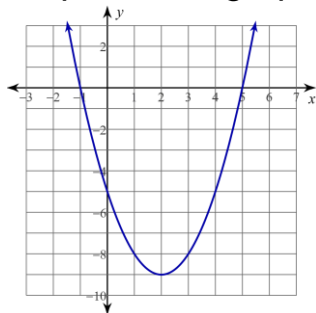
Vertex Form quadratic equation (transformation form) $f(x) = a(x - h)^2 + k$ $f(x) = -3(x + 1)^2 + 2$
 $f(x) = ax^2 + k$

Standard Form quadratic equation $g(x) = ax^2 + bx + c$ $g(x) = 6x^2 + 7x + 2$

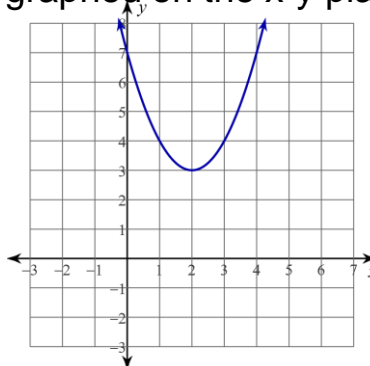
Intercept Form quadratic equation $k(x) = a(mx - p)(nx - q)$ $k(x) = 2(3x + 7)(x - 2)$

“Zero” of a 2-variable equation: the input value of an equation that causes the output to equal zero.

Real number “Zeroes” are the x-intercepts of the graph.



Imaginary number “Zeroes” cannot be graphed on the x-y plane



Solve by taking square roots: a method of obtaining zeroes of a quadratic equation that is in vertex form.

$$y = x^2 - 5$$

$$y = (x - 2)^2 - 9$$

To use this method, set $y=0$ then use the property of equality to “isolate the square” then “undo the square.”

Although the equation $y = x^2 - 5$ could be considered a standard form quadratic, because it does not have an ‘x’ term, we can call it a vertex form equation and so it is suitable for this method.