



Quadratics

Functions:

Standard form

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

ex: $f(x) = -2x^2 + 5x - 12$

$f(x) =$ means $y =$

Factor form
(x-intercept form)

$$f(x) = a(x-p)(x-q)$$

ex: $f(x) = 0.5(x+3)(x-4)$

x-intercepts are $(-3, 0)$ and $(4, 0)$

Vertex form

$$f(x) = a(x-h)^2 + k$$

ex: $f(x) = -3(x-7)^2 - 11$

vertex $(7, -11)$

Vertex:

maximum
for $a < 0$

ex: $f(x) = -0.7(x+4)^2 - 1$

minimum
for $a > 0$

$$f(x) = 5x^2 + 6x - 9$$

