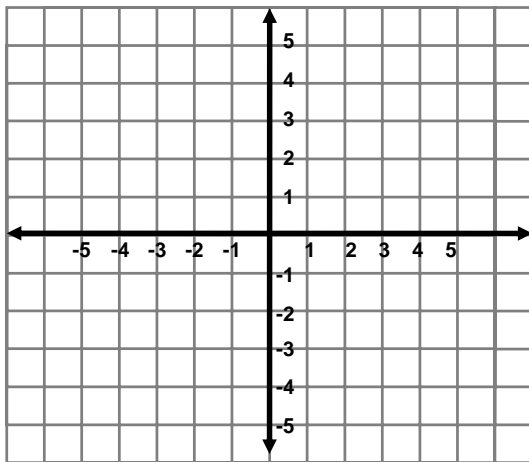


Parabola Review

Slope-Intercept Form of a Linear Function

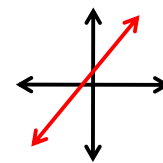
$$f(x) = mx + b$$

GRAPHING LINEAR FUNCTIONS



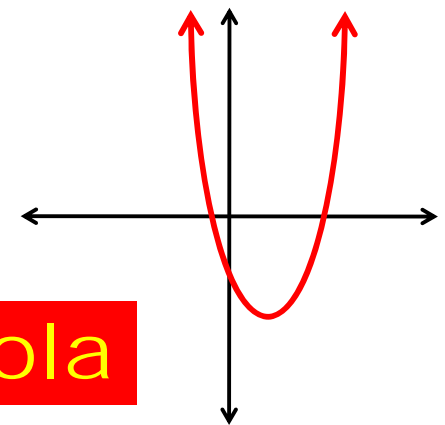
$$f(x) = 2x - 3$$

THE GRAPHS OF QUADRATIC FUNCTIONS



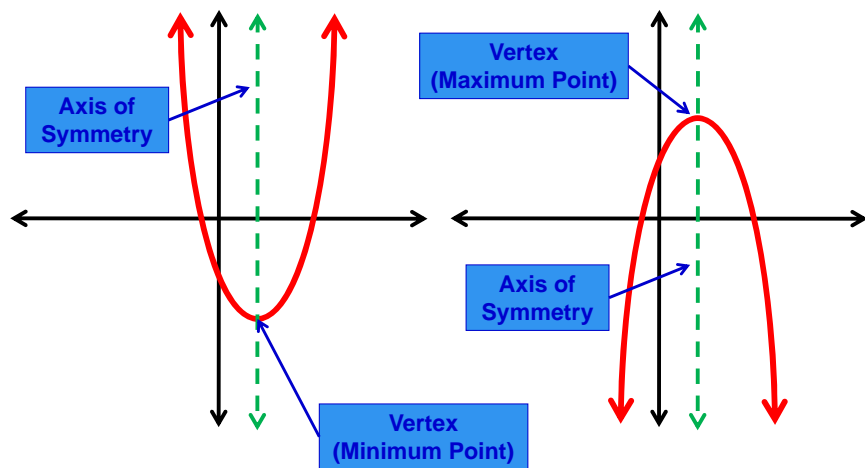
Linear Function Graph

Parabola



Quadratic Function Graph

PARTS OF QUADRATIC FUNCTIONS



Quadratic Function Equation

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

If "a" is positive, the parabola opens upward.
If "a" is negative, the parabola opens downward.

X-coordinate of the vertex of a parabola

In a parabola, to figure the x-coordinate of the vertex, use the following:

$$x = -\frac{b}{2a}$$

This also gives you the equation for the axis of symmetry.

FINDING MINIMUMS AND MAXIMUMS

WITHOUT GRAPHING, find the coordinates of the vertex. Then give the equation of the axis of symmetry and the least value of the function.

$$f(x) = 5x^2 - 10x + 4$$

$$x = -\frac{b}{2a}$$

