Unit: 3. Quadratics

VOCABULARY

asymptote	a line that a curve approaches but never reaches when values of *x* approach a certain number
average rate of change	how much a function changes on average on part of its domain.
equidistant	the same distance
formula for the average rate of change	similar to the formula for slope but the *y*-values are referred to by their function name.
hypotenuse	the side opposite the right angle in a right triangle
midpoint	a point that divides a line segment into two segments of equal length
parabola	the u-shaped graph of a quadratic function
perfect square trinomial	a trinomial that can be written as the square of a binomial
Pythagorean theorem	the square of the hypotenuse of a right triangle is equal to the sum of the squares of the two other sides; $a^2 + b^2 = c^2$
quadratic equation	an equation that can be written as $ax^2 + bx + c = 0$, where "a" is not zero
quadratic function	a function that can be written as $y = ax^2 + bx + c$, where "a" is not zero
reflection	a transformation resulting in a mirror image over a line

square root property	if $x^2 = N$ and N is not negative, then $x = \sqrt{N}$ or $x = -\sqrt{N}$
standard form	the form $y = (x - h)^2 + k$ of a quadratic equation with $a = 1$
translation	a shift or slide of a graph in the coordinate plane
vertex	the turning point of a parabola; the minimum or maximum point on the parabola
zero product property	$M \cdot N = 0$ if and only if $M = 0$ or $N = 0$ (or both)