# Unit 6 Glossary Terms

Quadratic expression

A quadratic expression in x is one that is equivalent to an expression of the form $ax^2 + bx + c$, where a, b, and c are constants and $a \neq 0$.

Quadratic function
A function where the output is given by a quadratic expression in the input.

Vertex (of a graph)

The vertex of the graph of a quadratic function or of an absolute value function is the point where the graph changes from increasing to decreasing or vice versa. It is the highest or lowest point on the graph.
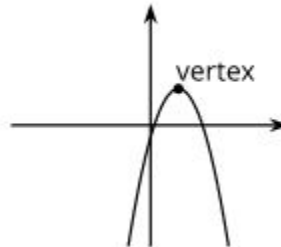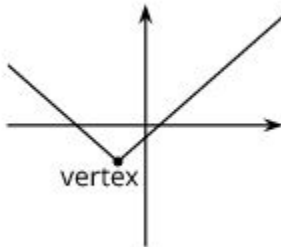
zero(of a function)
A zero of a function is an input that yields an output of zero. If other words, if $f(a) = 0$ then a is a zero of f.

Factored form (of a quadratic expression)
A quadratic expression that is written as the product of a constant times two linear factors is said to be in factored form.

For example, $2(x - 1)(x + 3)$ and (5x + 2)(3x - 1) are both in factored form.

Standard form (of a quadratic expression)

The standard form of a quadratic expression in x is $ax^2 + bx + c$, where a , b, and c are constants, and a is not 0.

Vertex form (of a quadratic expression)

The vertex form of a quadratic expression in x is $a(x - h)^2 + k$, where a , h , k and are constants, and a is not 0.