Glossary

Unit 2: Quadratic Functions

Axis of symmetry A vertical line that splits the graph of a quadratic function (parabola) into two mirror images.

Cartesian coordinate plane A 2-dimensional representation using a horizontal axis (x-axis) and a vertical axis (y-axis) to locate coordinates or ordered pairs, (x, y).

Common factor A factor that is shared by two or more expressions.

Domain all the possible input values for a function.

Equation appears as an equal sign between two equivalent expressions. Equations containing variables can be solved for particular values of the unknown.

Factor a number or expression that divides evenly into another number or expression.

Function a subset of a relation such that there is a single output value for every input value.

Greatest common factor The largest possible common factor among a set of terms.

Linear function A polynomial function of degree 1. A linear function can be written in the form $f(x) = mx + b$.

Mapping Mapping shows input values and their corresponding output values.

Quadratic formula $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ is the solution to $ax^2 + bx + c = 0$, *where* $a \neq 0$

Quadratic function A polynomial function of degree 2. A quadratic function can be written in the form $y = ax^2 + bx + c$.

Radicand The quantity or expression under a radical sign.

Range all the possible output values for a function.

Roots of an equation are values that make the equation true. Roots of an equation are also called solutions.

Solution A value that makes an equation true. Solutions to equations are also called roots.

Standard form of a quadratic function $f(x) = ax^2 + bx + c$ or $y = ax^2 + bx + c$

Vertex The point at which the graph of a quadratic function reaches its maximum or minimum value.

Vertex form of a quadratic equation $y = a(x - h)^2 + k$

***x*-intercept** A point where the graph of a function crosses the x-axis

***y*-intercept** The point where the graph of a function crosses the y-axis

Zeros of a function are the x-values that make the function equal to zero. They correspond to the x-intercepts of the graph of the function.