## FM2 - Unit 4 Quadratics

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Axis of Symmetry
Discriminant
Maximum

Minimum

Parabola
Quadratic Equation
Quadratic Formula
Quadratic Function

Quadratic Parent Function
Root of the Equation
Standard Form of a Quadratic Equation
Standard Form of a Quadratic Function

Vertex
Zero of a Function
Zero-Product Property

Divides the parabola into mirror images and passes through the vertex, $x=-b / 2 a$
In the Quadratic Formula, the expression under the radical sign, $\mathrm{b}^{2}-4 \mathrm{ac}$.
The highest point on the graph of a curve, such as the vertex of a parobala the opens downward.

The lowest point on the graph of a curve, such as the vertex of a parabola that opens upward.
$U$ shape made by a quadratic function.
An equation that can be written in the standard form $y=a x^{2}+b x+c=0$ where $a \neq 0$.
$x=\left(-b \pm \sqrt{ }\left(b^{2}-4 a c\right)\right) / 2 a$
A function that can be written in the form $f(x)=a x^{2}+b x+c$, where $a \neq 0$.

The simplest quadratic function. $f(x)=x^{2}$
A solution of an equation.
$y=a x^{2}+b x+c$; shows the $y$ intercept of a parabola.
$f(x)=a x^{2}+b x+c$; shows the $y$ intercept of a parabola.
The maximum or minimum point of a parabola.
A solution of the equation $f(x)=0$ is a zero of the function $f$ or a root of the equation.
For all real numbers $a$ and $b$, if $a b=0$, then $a=0$ or $b=0$.

