Properties of Graphs of Quadratics

Standard form: $y = ax^2 + bx + c \quad (a \neq 0)$

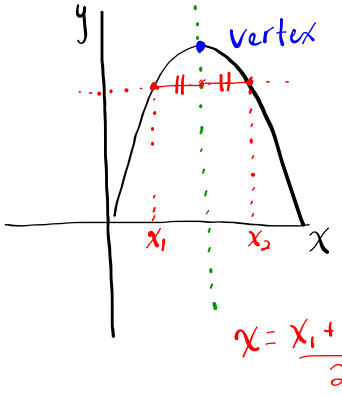
$a \rightarrow$ if $a > 0$, the parabola opens up

$a < 0$, the parabola opens down

$b \rightarrow$ affects the location of the line of symmetry or vertex

$c \rightarrow$ y-intercept.

The symmetry of the parabola can be used to solve problems.



vertex is located on the axis of symmetry which is exactly halfway between two points that have the same y-value.

Domain: $x \in R$

Range: $y \in R$, but you have to consider to location of the vertex

TODO

① p370 | 5-16 (#8 + #11, set up table of values + graph by hand)