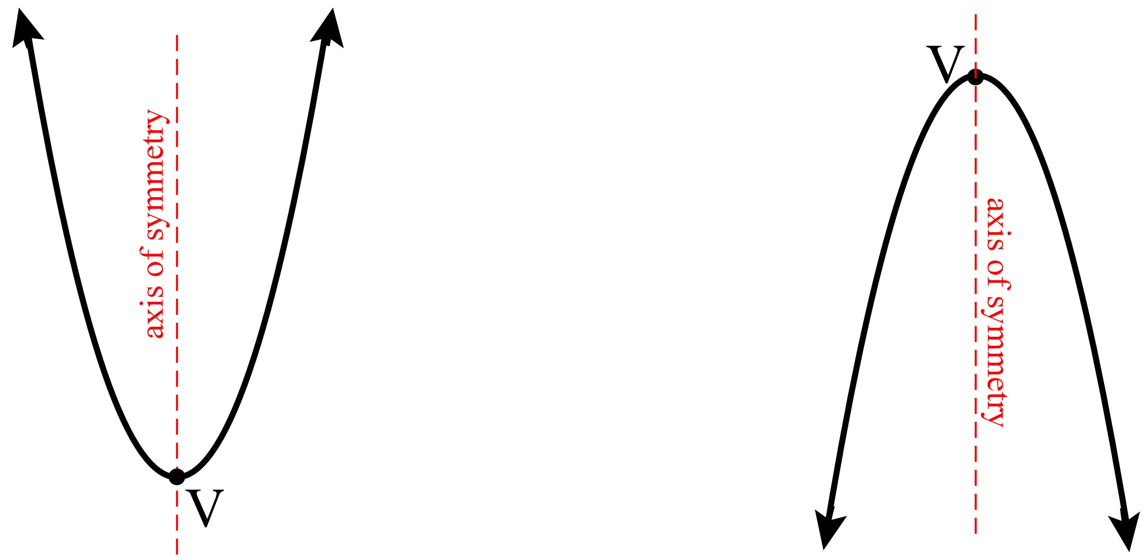
I. Quadratic Function (p.611):

1. $f(x) = ax^2 + bx + c$ General Form / p.617
2. Graph is a "parabola" opening...



upward if $a > 0$ and downward if $a < 0$

Vertex is "turning" point where the parabola is intersected by the (vertical) line of symmetry, $x = \dfrac{-b}{2a}$

3. $f(x) = a(x - h)^2 + k$ Standard Form / p.614

Vertex @ (h,k) where $h = -b/(2a)$ & $k = f(h)$ ☜ min/max

II. Examples (pp.625-626): Exercises #2-16(even)

III. Graphing a Quadratic Function:

1. Find and plot the Vertex (h,k)
   $h = -b/(2a)$, $k = f(h)$
2. Identify direction of opening via the coefficient "a"
3. Determine the ***x***- and ***y***-intercepts
   by solving $f(x) = 0$ & finding $f(0)$ respectively
4. Plot enough (***x***,***y***)-coordinate pairs to recognize the shape of the "parabola" (opens up when $a > 0$, opens down when $a < 0$)...

IV. Examples (pp.626): Exercises #26,38

HW: pp.625-628 / Exercises #1-15(odd),17,21,25,
29,37

Read pp.638-643 (section 8.5 / polynomials only)