I. Graph of $f(x) = ax^2 + bx + c$

is a “parabola” which opens

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

Vertex: $V(h,k)$ where $h = \frac{-b}{2a}$ & $k = f(h)$

curve is symmetric about $x = h$ (vertical line)

also, $f(x) = a(x - h)^2 + k$

II. Examples (p.266): Exercises #22,44,48,34
III. Solving $ax^2 + bx + c > 0$

\[ \text{can also be } <, \leq \text{ or } \geq \]

Method 1 (factoring) v. Method 2 (x-intercepts)

sign graph interval test points

IV. Examples (p.266): Exercises #54,68

HW: pp.266-267 / Exercises #21-73(every other odd), 87,97