4.1 - Standard Form Graphing

> $y = ax^2 + bx + c$
> $\frac{-b}{2a}$
> Vertex, axis of symmetry, y-intercept

4.2 - Intercept and Vertex Form Graphing

> $y = (x - s)(x - t)$ Vertex: $\frac{s+t}{2}$
  - s, t are x-intercept
> $y = a(x - h)^2 + k$
  - Vertex at (h,k)

4.3-4.4 - Factoring

> GCF
> Basic Factors
> AC Method
> Factor by Grouping
> Can also use Special Factors

4.5 - Solving by taking the square roots

> Get the squared part by itself, square root both sides
> Simplify radicals

4.6 - Complex Numbers

> $i = \sqrt{-1}$ and $i^2 = -1$
> Standard form: a+bi
> Add/Subtract/Multiply/Divide Complex Numbers
> Simplify!

4.7 - Complete the Square

> Get rid of their C
> Get rid of A
> Add your perfect C in the blank to both sides $\left(\frac{b}{2}\right)^2$
> Factor into perfect square binomial
> Square root
> Simplify!

4.8 - Quadratic Formula

> $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
> Simplify!

4.9 - Graphing Quadratic Inequalities

> Standard Form
> Solid vs. Dashed
> Where to shade