

# Chapter 8 Study Guide

- \*Know the quadratic formula
- \*Know what the discriminant is and how to use it to find the number of solutions
- \* Know what perfect squares are; know all the rules for simplifying radicals
- \*Perfect squares: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144...
- \* Know how to recognize a quadratic function
- \* Know what a vertex, axis of symmetry, zeros, maximum/minimum, y-intercept, domain, and range are and how to find and graph them. (The axis of symmetry formula will be given to you)
- \* Compare graphs to  $f(x)=x^2$  (wider vs. narrower, translated up or down, and parabola opening up or down)
- \*Solve quadratic equations by factoring (lesson 8.6)
- \* Solve quadratic equations by using square roots (8.7)
- \*Solve quadratic equations using the quadratic formula (8.9) -- must have quadratic formula memorized!