Date:

Chapter: Chapter 5:8 --> Quadratic Inequalities

Objectives: Graph quadratic inequalities in two variables.

Solve quadratic inequalities in one variable.

Notes:

How to Graph a Quadratic Inequality

--Just like graphing a Linear Inequality--

1) Graph the inequality

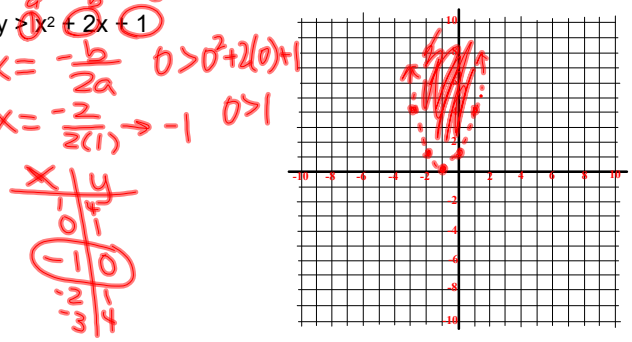
2) Pick a test pt. --> preferred: (0, 0)

3) Shade the test pt. that is a solution

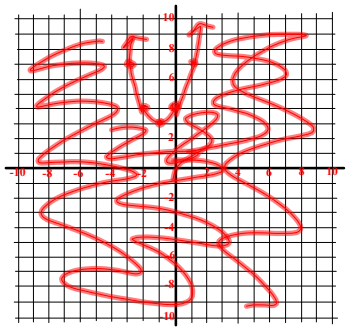
Examples:

Ex. 1 - Graph

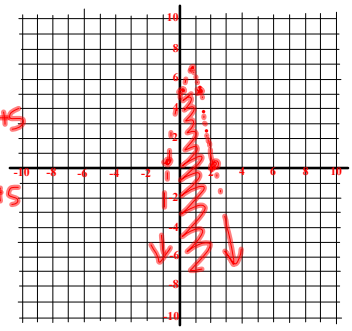
a) $y > x^2 + 2x + 1$



b) $y \leq x^2 + 2x + 4$



c) $y < -2x^2 + 3x + 5$



Ex. 2 - Solve algebraically

a) $x^2 - 3x \leq 18$

b) $x^2 + 5x < -6$

c) $x^2 + 11x + 30 \geq 0$

Homework:

p. 316 (#14-18 Evens, 34-44 Evens)