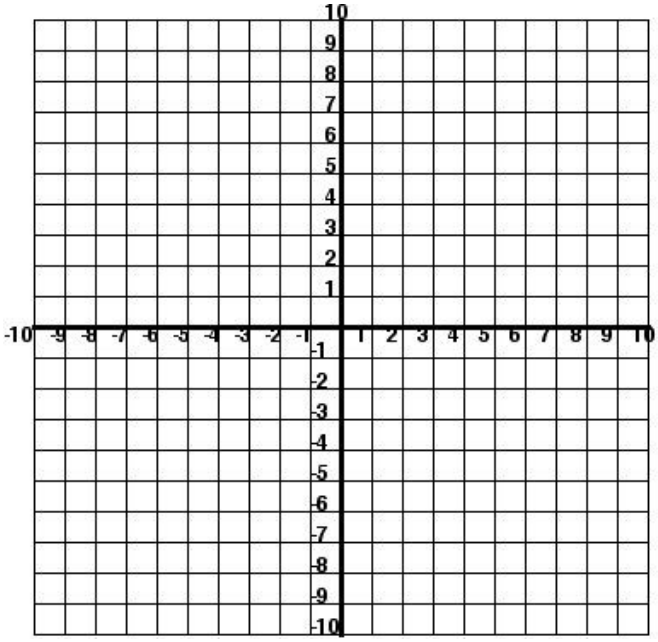
Honors Algebra II

Notes Section 1.9

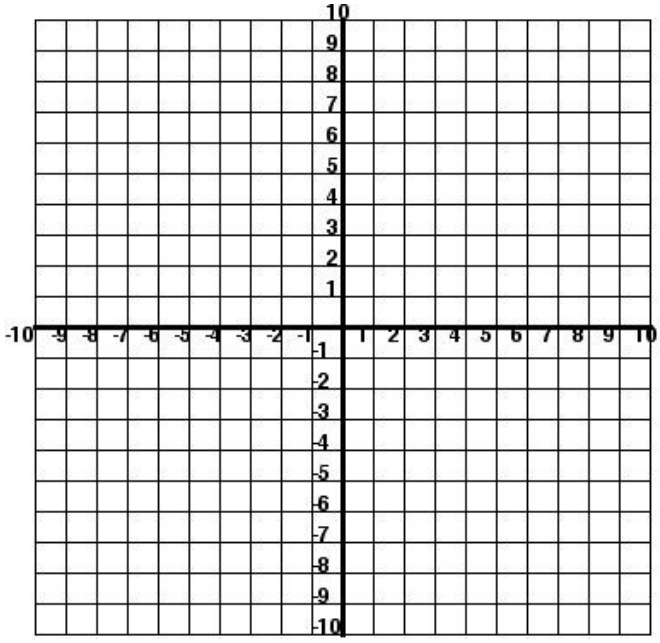
Graph and Solve Quadratic Inequalities

EXAMPLE 1 Graph the inequality.

a) $y > x^2 + 3x - 4$



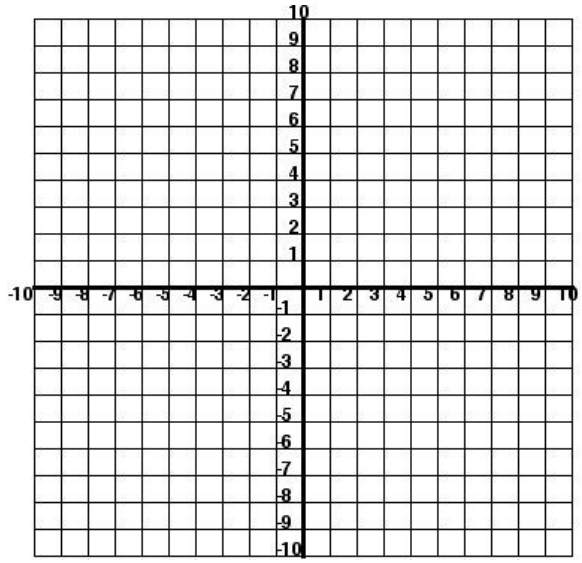
b) $y \leq 2x^2 - 3x + 1$



EXAMPLE 2 Graph the system of inequalities.

$y \leq -x^2 + 4$

$y > x^2 - 2x - 3$



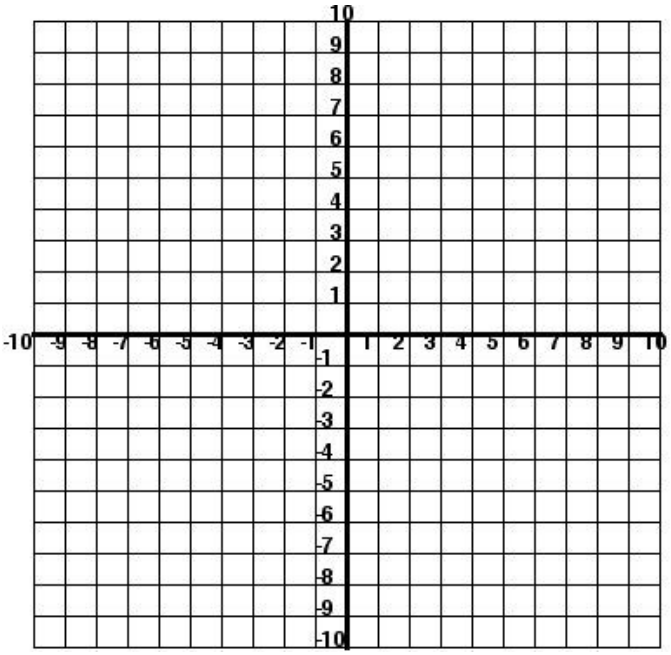
EXAMPLE 3 Solve using a Table.

a) $x^2 + x \leq 6$

b) $x^2 + 2x - 3 > 0$

EXAMPLE 4 Solve by Graphing.

$2x^2 + x - 4 \geq 0$



EXAMPLE 5 Graph using a Graphing Calculator.

$T(x) = 7.51x^2 - 164x + 35 > 100 \quad ; \quad 0 \leq x \leq 9$

EXAMPLE 6 Solve algebraically.

a) $x^2 - 2x > 15$

b) $5x^2 - 6x - 2 \leq 0$