## LESSON 3.6: QUADRATIC INEQUALITIES

**Homework:** _____

**Learning Targets**:

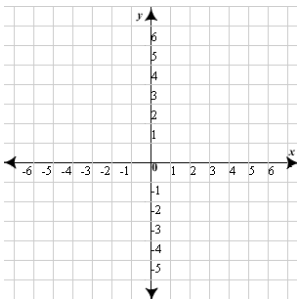
3e. Understanding of how to graph quadratic inequalities and solve quadratic inequalities in 1-variable.

### QUADRATIC INEQUALITY IN 1 VARIABLE

$y > ax^2 + bx + c$

- Graph the parabola
- Shade above or below the vertex

$y < -(x-4)^2 + 1$



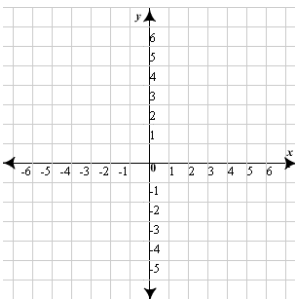
$x^2 - 4x - 21 > 0$

### QUADRATIC INEQUALITIES IN 2 VARIABLES

$ax^2 + bx + c > 0$

- Graph the zeros
- Determine if above or below *x*-axis

$y \geq x^2 + 4$



$x^2 + 5x \leq 6$