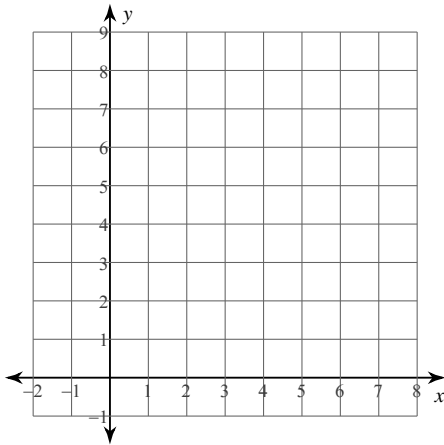


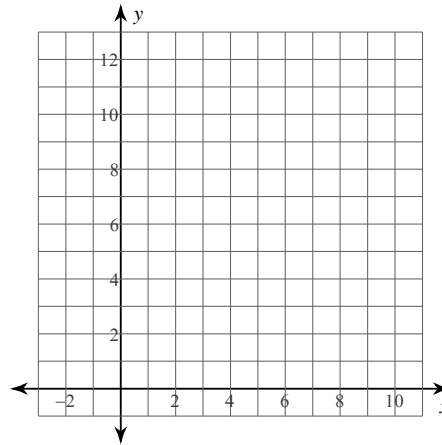
Quadratic Inequalities

Sketch the graph of each function.

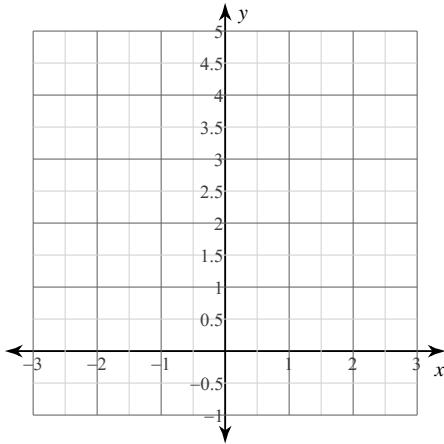
1) $y \geq 2x^2$



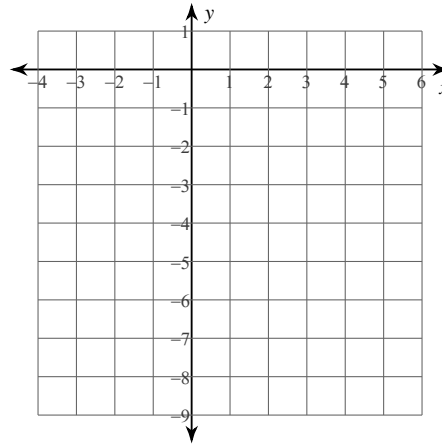
2) $y > 3x^2$



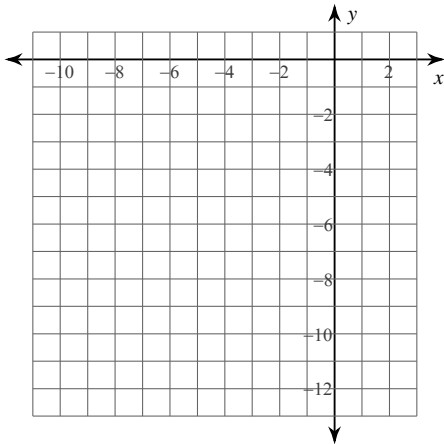
3) $y > x^2$



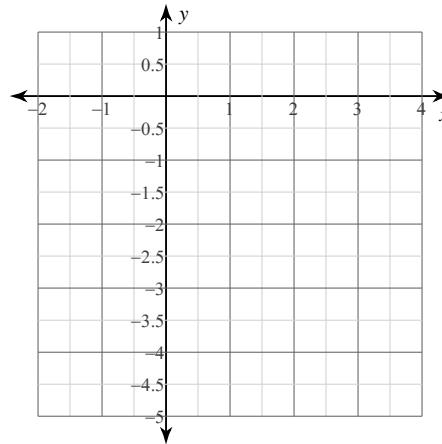
4) $y < -2x^2$



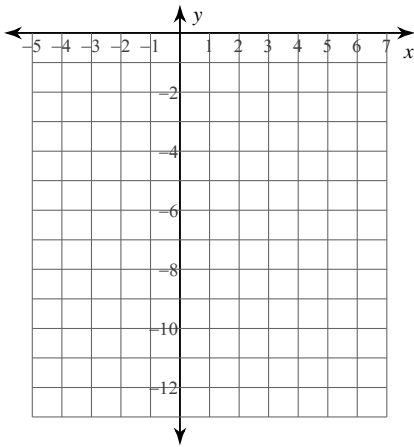
5) $y \geq -3x^2$



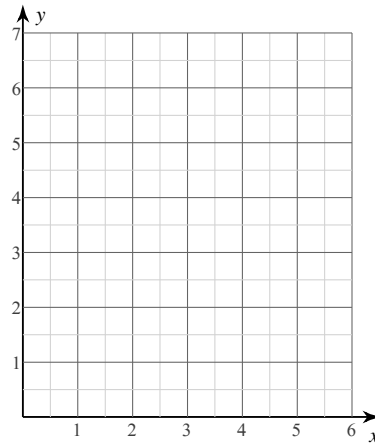
6) $y \leq -x^2$



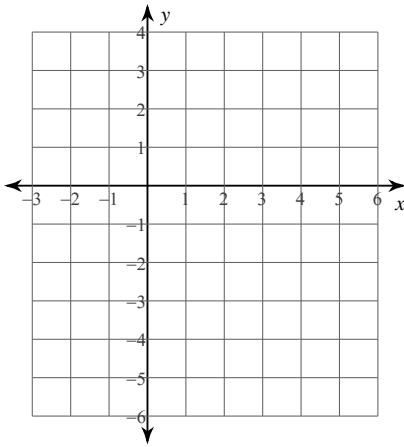
7) $y < -2x^2 - 8x - 12$



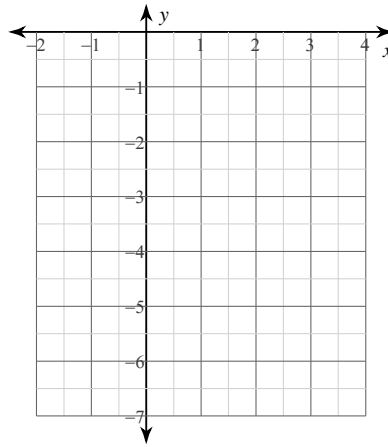
8) $y \leq x^2 - 6x + 11$



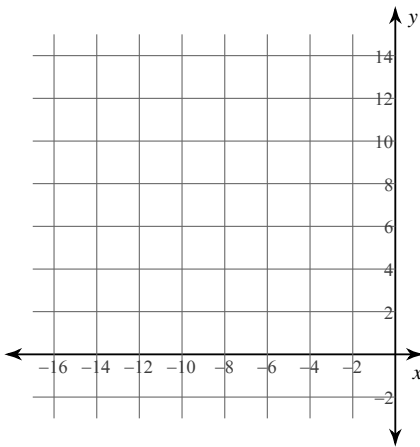
9) $y \geq -2x^2 + 16x - 29$



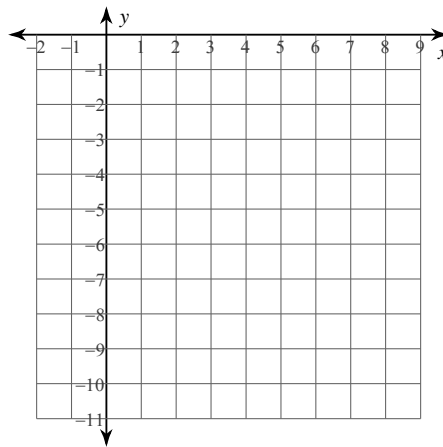
10) $y > -x^2 + 4x - 6$



11) $y \leq 4x^2 + 32x + 62$



12) $y > -2x^2 + 16x - 34$



Critical thinking questions:

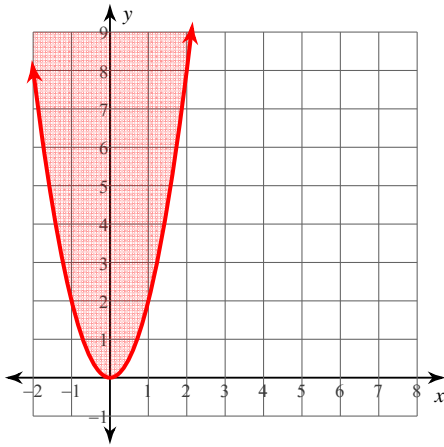
13) Name one solution to:
 $y > x^2 + 6x + 5$

14) Name one solution to the system:
 $y \geq x^2 - 2x + 2$
 $y = x + 1$

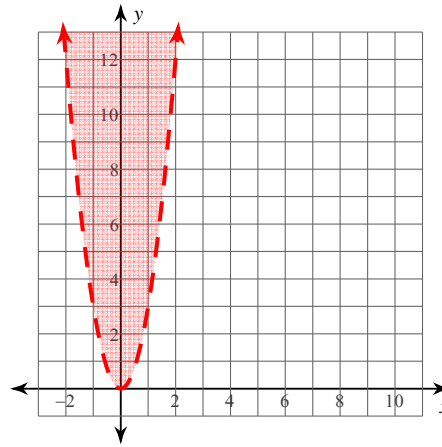
Quadratic Inequalities

Sketch the graph of each function.

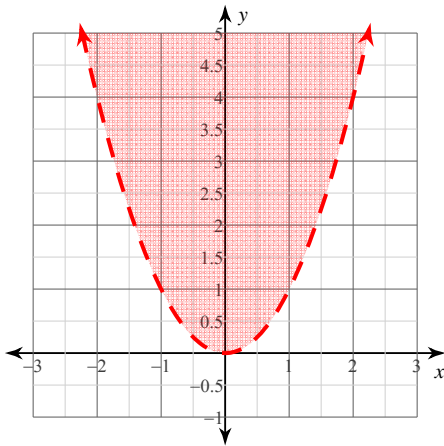
1) $y \geq 2x^2$



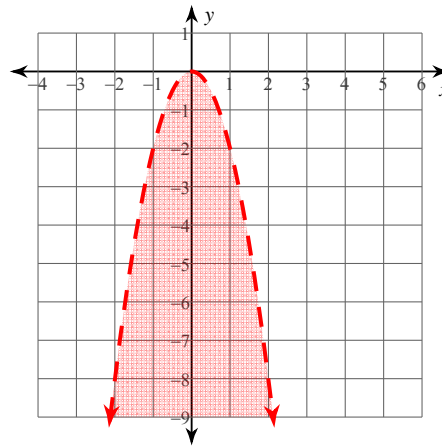
2) $y > 3x^2$



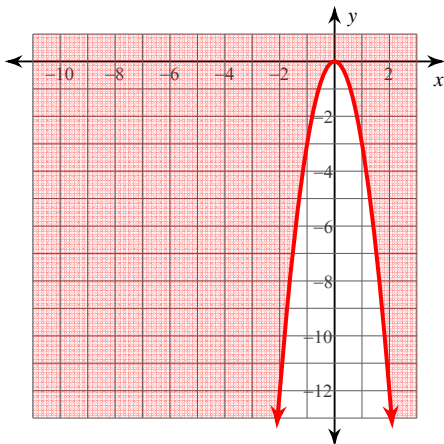
3) $y > x^2$



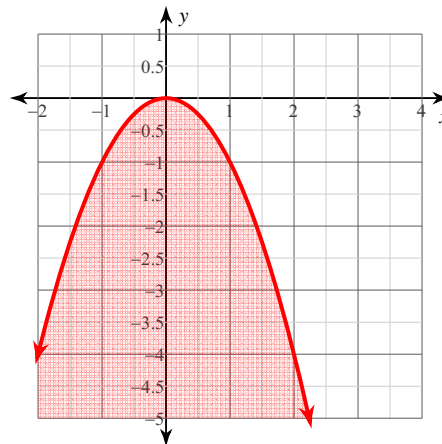
4) $y < -2x^2$



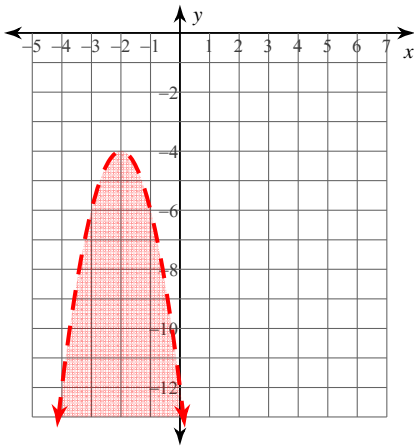
5) $y \geq -3x^2$



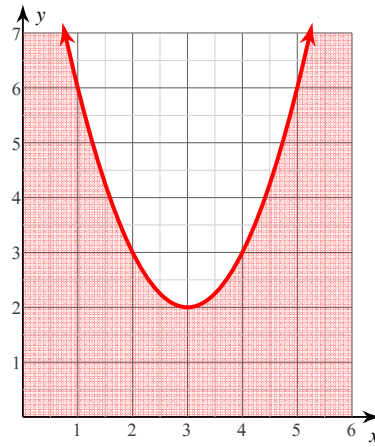
6) $y \leq -x^2$



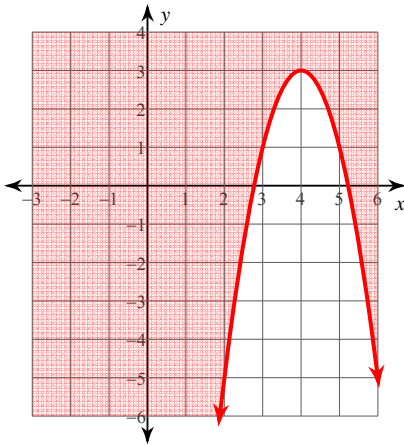
7) $y < -2x^2 - 8x - 12$



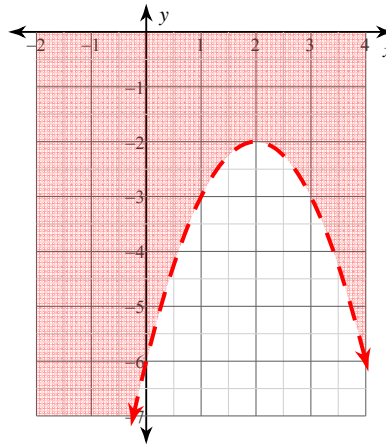
8) $y \leq x^2 - 6x + 11$



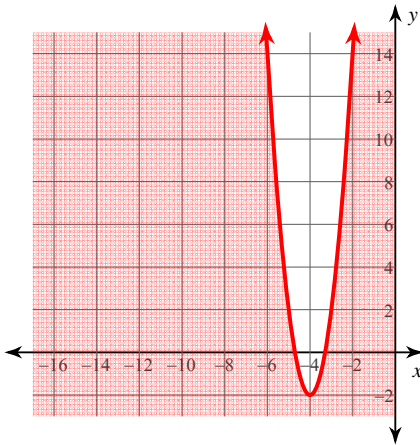
9) $y \geq -2x^2 + 16x - 29$



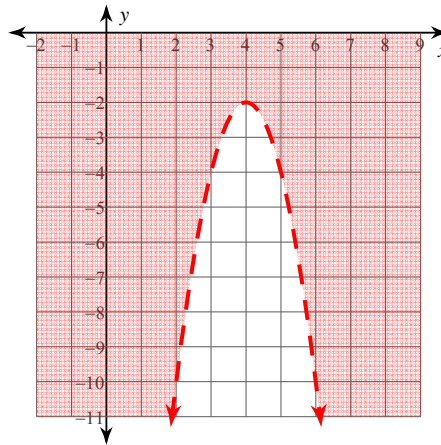
10) $y > -x^2 + 4x - 6$



11) $y \leq 4x^2 + 32x + 62$



12) $y > -2x^2 + 16x - 34$



Critical thinking questions:

13) Name one solution to:

$$y > x^2 + 6x + 5$$

Many answers. Ex: $(-3, 0)$

14) Name one solution to the system:

$$y \geq x^2 - 2x + 2$$

$$y = x + 1$$

Many answers. Ex: $(1, 2)$, or $(2, 3)$