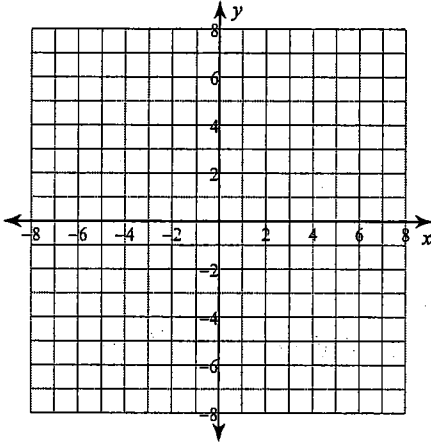


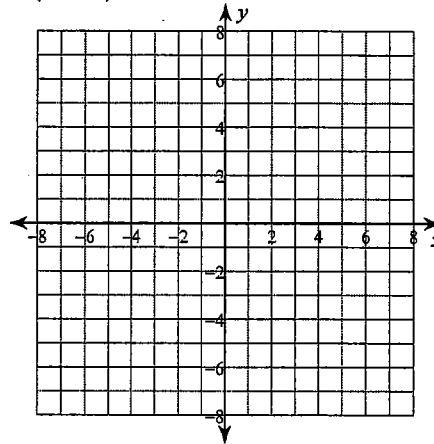
7.2 Quadratic Inequalities (Graphing)

Solve each quadratic inequality graphically. Answer #1-3 in set notation and #4-6 in interval notation.

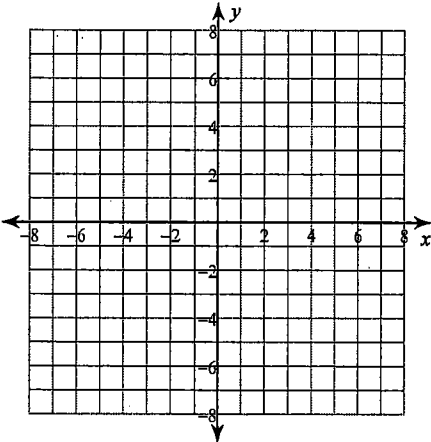
1) $(x - 2)^2 - 1 \geq 0$



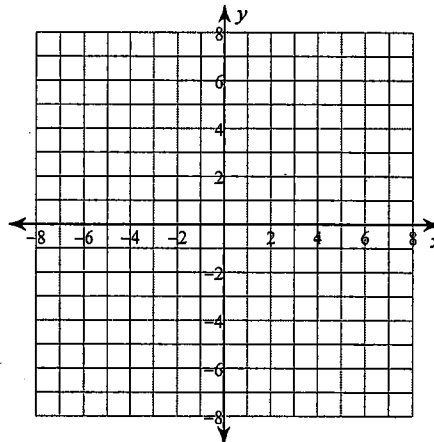
2) $-(x + 3)^2 + 4 < 0$



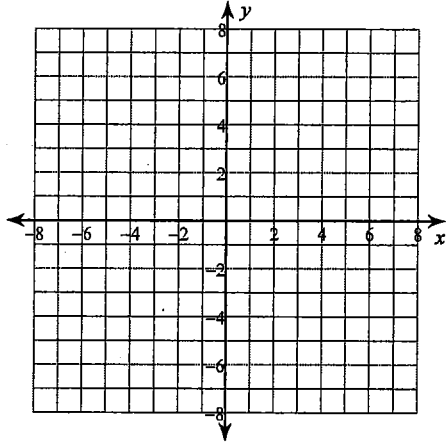
3) $-x^2 + 2x + 8 > 0$



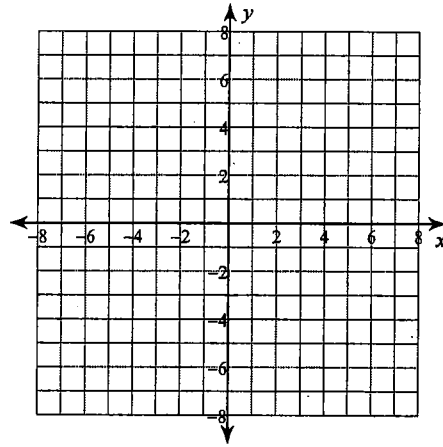
4) $x^2 - 2x \geq 0$



$$5) x^2 + 6x + 4 \leq -1$$



$$6) -x^2 + 3x + 1 > x - 2$$



Textbook work : p. 484 # 1, 2

Answers:

$$1. \{x \mid x \leq 1 \text{ or } x \geq 3, x \in \mathbb{R}\}$$

$$2. \{x \mid x < -5 \text{ or } x > -1, x \in \mathbb{R}\}$$

$$3. \{x \mid -2 < x < 4, x \in \mathbb{R}\}$$

$$4. (-\infty, 0] \cup [2, \infty)$$

$$5. [-5, -1]$$

$$6. (-1, 3)$$