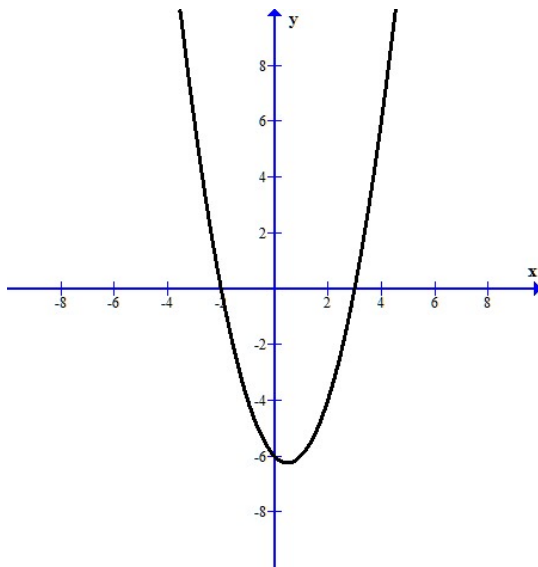


4.5 Inequalities Involving Quadratic Functions

▼ Solving Quadratic Inequalities Graphically

▼ Example 1



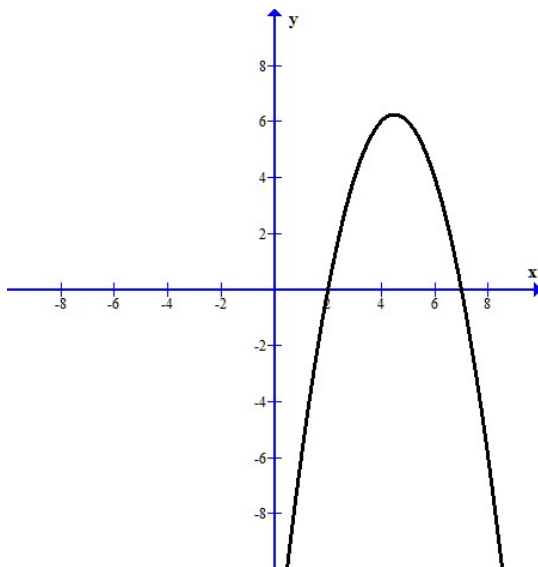
$$f(x) > 0$$

$$f(x) \geq 0$$

$$f(x) < 0$$

$$f(x) \leq 0$$

▼ Example 2



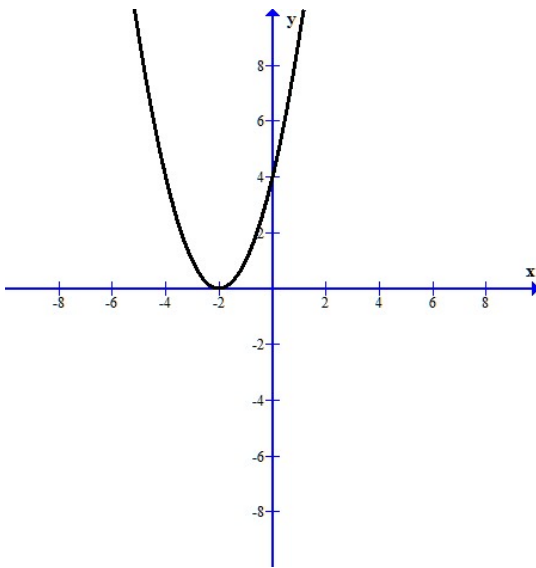
$$f(x) > 0$$

$$f(x) \geq 0$$

$$f(x) < 0$$

$$f(x) \leq 0$$

▼ Example 3



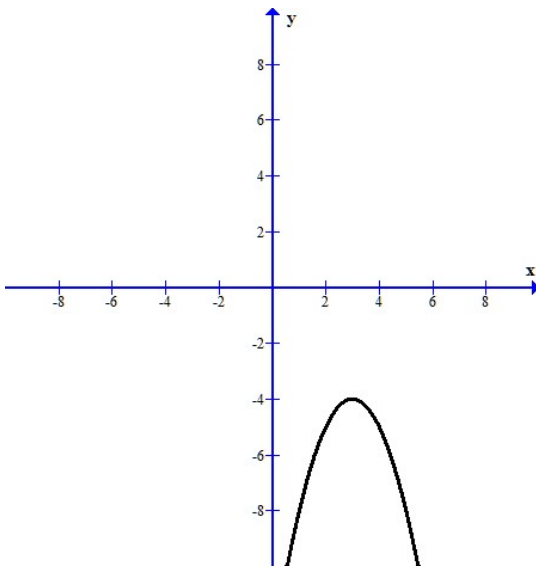
$$f(x) > 0$$

$$f(x) \geq 0$$

$$f(x) < 0$$

$$f(x) \leq 0$$

▼ Example 4



$$f(x) > 0$$

$$f(x) \geq 0$$

$$f(x) < 0$$

$$f(x) \leq 0$$

▼ Solving Quadratic Inequalities Algebraically

▼ Example 1: Solve $x^2 - 3x - 4 > 0$

▼ Example 2: Solve $x^2 \leq 9$

▼ Example 3: Solve $x^2 + 3x > 10$