Solving Quadratic Inequalities

What is a Quadratic Inequality?

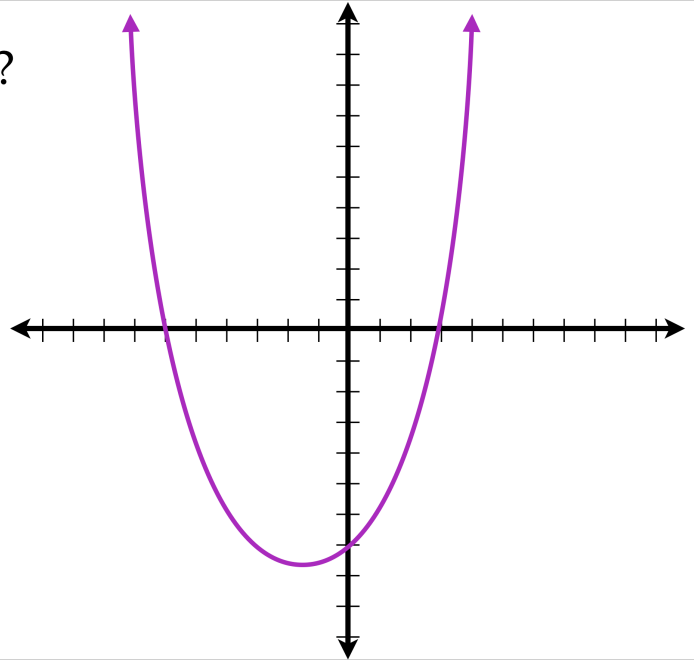A function in quadratic form with an inequality sign...

$$ax^2 + bx + c \geq 0 \qquad ax^2 + bx + c \leq 0$$

$$f(x) \geq 0 \qquad\qquad f(x) \leq 0$$

Solve the following quadratic inequality:

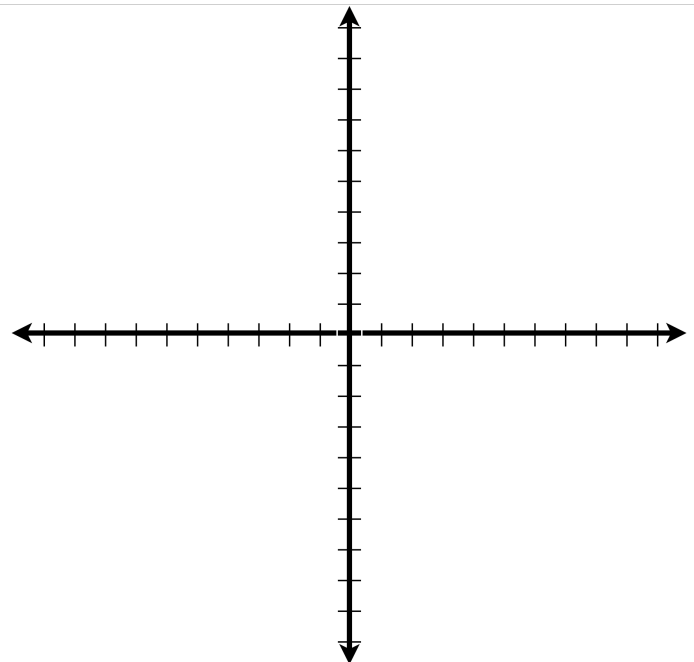$$x^2 + 6x + 5 \leq 0$$

Vertex   Interval Notation

y-intercept x-intercept(s)

Solve the following quadratic inequality:
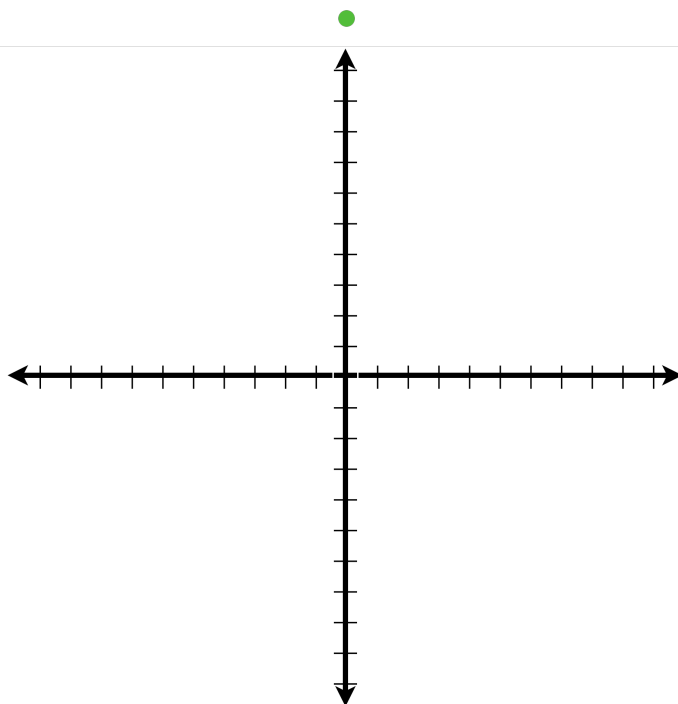
$$x^2 - 8x + 12 \geq 0$$

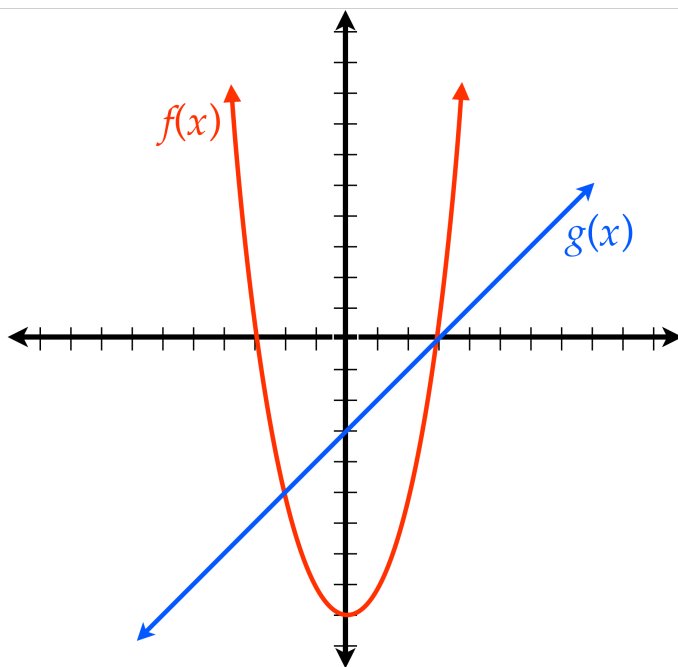$a = 1 \qquad b = -8 \qquad c = 12$

Vertex   Interval Notation

y-intercept x-intercept(s)

Solve the following quadratic inequality:

$$x^2 - 9 \leq x - 3$$

$f(x)$

$g(x)$

Solve the following quadratic inequality:

$$x^2 - 9 \geq x - 3$$