

Replace the ? with <, >, or = to make the statement true.

1. $3 ? 6$
 $<$

2. $-3 ? -6$
 $>$

3. $\frac{1}{2} ? .5$
 $=$

4. $\frac{10}{15} ? \frac{8}{15}$
 $>$

Write the set of all numbers greater than 2 and less than or equal to 5 in both set and interval notation.

Interval: $(2, 5]$

Set: $\{x \mid 2 < x \leq 5\}$

Sep 14-9:58 AM

5-4

Solving Quadratic Inequalities

Objectives:

1. I can solve a quadratic inequality.
2. I can graph the answer to a quadratic inequality.
3. I can state my answer in set and interval notation.

Nov 9-9:52 PM

Write each inequality using interval notation then graph.

$\{x \mid -2 \leq x \leq 4\}$ $[-2, 4]$

$\{x \mid 1 < x \leq 5\}$ $(1, 5]$

Sep 14-10:16 AM

Write each inequality using interval notation then graph.

$\{x \mid x < 2\}$ $(-\infty, 2)$

$\{x \mid x \geq 3\}$ $[3, \infty)$

Sep 14-10:20 AM

Write each inequality using interval notation then graph.

$\{x \mid x < -2 \cup x > 5\}$ $(-\infty, -2) \cup (5, \infty)$

$\{x \mid x \leq 1 \cup x \geq 4\}$ $(-\infty, 1] \cup [4, \infty)$

Sep 14-10:20 AM

You try

$\{x \mid -3 \leq x \leq 2\}$ $[-3, 2]$

$\{x \mid x < 3\}$ $(-\infty, 3)$

$\{x \mid x < 3 \cup x > 8\}$ $(-\infty, 3) \cup (8, \infty)$

Sep 14-10:23 AM

Write each interval using inequality notation involving x, then graph.

$[-2, 4)$ $\{x | -2 \leq x < 4\}$

$(-\infty, -3] \cup [4, \infty)$ $\{x | x \leq -3 \cup x \geq 4\}$

$(-\infty, 1)$ $\{x | x < 1\}$

Sep 14-10:24 AM

You try

$(0, 5]$

$(-\infty, -6) \cup (3, \infty)$

$(7, \infty)$

Sep 14-10:30 AM

Solve the following using the algebraic method.

$x^2 - 4x - 5 \geq 0$

$x^2 - 4x - 5 = 0$

$(x + 1)(x - 5) = 0$

$x + 1 = 0$ $x - 5 = 0$
 $x = -1$ $x = 5$

Mar 31-9:37 AM

Solve the following using the graphical method.

$x^2 - 4x - 5 \geq 0$

Mar 31-9:33 AM

You Try

Solve algebraically then check your answer by graphing

$x^2 + 3x - 10 \geq 0$

Mar 31-9:33 AM


You Try

Solve algebraically then check your answer by graphing

$-x^2 + 5x - 6 < 0$


Mar 31-9:33 AM

Solve algebraically then check your answer by graphing

$$2x^2 > 4x - 1$$



Mar 31-9:42 AM

You try
Solve algebraically then check your answer by graphing

$$3x^2 < -x + 5$$



Mar 31-9:46 AM

Solve algebraically then check your answer by graphing

$$y^2 + 3y + 5 \geq 0$$



Apr 1-2:03 PM

Solve algebraically then check your answer by graphing

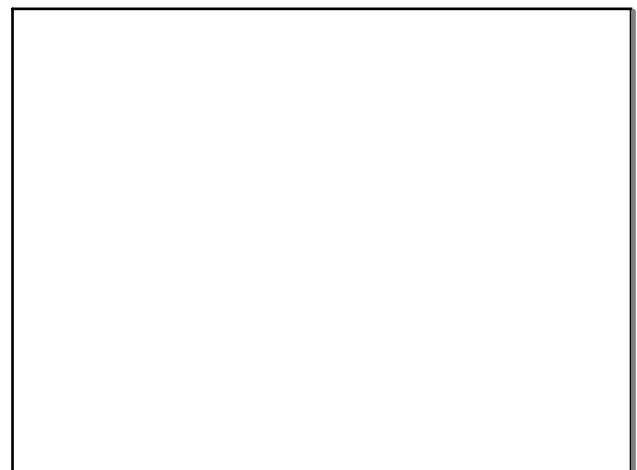
$$y^2 + 3y + 5 \geq 0$$


Apr 1-2:03 PM

Solve algebraically then check your answer by graphing

$$x^2 + 8x + 16 > 0$$


Apr 6-10:30 AM



Feb 24-12:12 PM