

Solving Quadratic Inequalities

L3S1

Solve each quadratic inequality.

1) $2x^2 + 2x - 8 > x^2$

2) $5x^2 + 11x + 3 < 2x^2 + x - 4$

3) $3x^2 - 5x \geq 4x^2 + 6$

4) $6x^2 \leq x^2 + 3x + 2$

5) $-x^2 - 10x + 11 < -2x^2 - 2x - 1$

6) $4x^2 - 12 > 3x^2 + x$

7) $3x^2 + 7x \leq 5x^2 + 3x - 6$

8) $x^2 > 5x + 6$

Answer key**Solving Quadratic Inequalities**

L3S1

Solve each quadratic inequality.

1) $2x^2 + 2x - 8 > x^2$

$x < -4$ or $x > 2$

2) $5x^2 + 11x + 3 < 2x^2 + x - 4$

$-\frac{7}{3} < x < -1$

3) $3x^2 - 5x \geq 4x^2 + 6$

$-3 \leq x \leq -2$

4) $6x^2 \leq x^2 + 3x + 2$

$-\frac{2}{5} \leq x \leq 1$

5) $-x^2 - 10x + 11 < -2x^2 - 2x - 1$

$2 < x < 6$

6) $4x^2 - 12 > 3x^2 + x$

$x < -3$ or $x > 4$

7) $3x^2 + 7x \leq 5x^2 + 3x - 6$

$x \leq -1$ or $x \geq 3$

8) $x^2 > 5x + 6$

$x < -1$ or $x > 6$