

Name : _____

Date : _____

Solving Quadratic Inequalities

Solve the given inequalities.

① $2x^2 + 9x + 10 > 0$

② $x^2 - 3x + 2 < 0$

③ $x^2 - 7x + 6 > 0$

④ $x^2 - 4x + 3 > 0$

⑤ $x^2 - 6 > 6 - x$

⑥ $-1 < -3x - 5x^2$

⑦ $7x^2 - 22x + 16 \leq 0$

⑧ $-x^2 + 3x - 2 > 0$

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Solving Quadratic Inequalities

Answers

① $2x^2 + 9x + 10 > 0$

$$x < -\frac{5}{2} \text{ or } x > -2$$

③ $x^2 - 7x + 6 > 0$

$$x < 1 \text{ or } x > 6$$

⑤ $x^2 - 6 > 6 - x$

$$x < -4 \text{ or } x > 3$$

⑦ $7x^2 - 22x + 16 \leq 0$

$$\frac{8}{7} \leq x \leq 2$$

② $x^2 - 3x + 2 < 0$

$$1 < x < 2$$

④ $x^2 - 4x + 3 > 0$

$$x < 1 \text{ or } x > 3$$

⑥ $-1 < -3x - 5x^2$

$$\frac{-\sqrt{29}-3}{2} < x < \frac{\sqrt{29}-3}{2}$$

⑧ $-x^2 + 3x - 2 > 0$

$$1 < x < 2$$