Solving Quadratic Inequalities

Solve these inequalities.

(a) $(x-3)(x-6) > 0$

(b) $(x-3)(x-6) < 0$

(c) $(x+3)(x-6) < 0$

(d) $(x+3)(x+4) \geq 0$

(e) $x(x+3) > 0$

(f) $(2x-1)(x+3) < 0$

Solve these inequalities.

(a) $x^2 - 6x - 16 > 0$

(b) $x^2 + 7x + 12 \geq 0$

(c) $x^2 - 7x + 12 < 0$

(d) $x^2 - 9x + 20 > 0$

(e) $x^2 - 16 < 0$

(f) $x^2 - 9x < 0$

Solve these inequalities.

(a) $x^2 - 2x > 35$

(b) $x^2 + 2x < 48$

(c) $2x^2 > 11x - 12$

(d) $16x - x^2 \leq 6x$

Find the solution sets for these inequalities.

(a) $\frac{x^2+12}{2} > 4x$

(b) $(x-3)(2x+3) < 2x(1-2x) - 5$

(c) $(x+5)^2 \geq 1$

(d) $(5-x)(x+3) \leq 1$

Solving Quadratic Inequalities

Solve these inequalities.

(a) $(x-3)(x-6) > 0$

(b) $(x-3)(x-6) < 0$

(c) $(x+3)(x-6) < 0$

(d) $(x+3)(x+4) \geq 0$

(e) $x(x+3) > 0$

(f) $(2x-1)(x+3) < 0$

Solve these inequalities.

(a) $x^2 - 6x - 16 > 0$

(b) $x^2 + 7x + 12 \geq 0$

(c) $x^2 - 7x + 12 < 0$

(d) $x^2 - 9x + 20 > 0$

(e) $x^2 - 16 < 0$

(f) $x^2 - 9x < 0$

Solve these inequalities.

(a) $x^2 - 2x > 35$

(b) $x^2 + 2x < 48$

(c) $2x^2 > 11x - 12$

(d) $16x - x^2 \leq 6x$

Find the solution sets for these inequalities.

(a) $\frac{x^2+12}{2} > 4x$

(b) $(x-3)(2x+3) < 2x(1-2x) - 5$

(c) $(x+5)^2 \geq 1$

(d) $(5-x)(x+3) \leq 1$