

Solving Quadratic Inequalities

Sheet 1

Solve each quadratic inequality using a table.

1) $10x^2 - 27x + 18 \leq 0$

Solution : _____

2) $x^2 - 5x + 4 > 0$

Solution : _____

3) $-x^2 + 11x - 30 < 0$

Solution : _____

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Solve each quadratic inequality using a table.

1) $10x^2 - 27x + 18 \leq 0$

	$x \leq \frac{6}{5}$	$\frac{6}{5} \leq x \leq \frac{3}{2}$	$x \geq \frac{3}{2}$
$(5x - 6)$	-	+	+
$(2x - 3)$	-	-	+
$(5x - 6)(2x - 3)$	+	-	+

Solution : $\frac{6}{5} \leq x \leq \frac{3}{2}$

2) $x^2 - 5x + 4 > 0$

	$x < 1$	$1 < x < 4$	$x > 4$
$(x - 1)$	-	+	+
$(x - 4)$	-	-	+
$(x - 4)(x - 1)$	+	-	+

Solution : $x < 1$ or $x > 4$

3) $-x^2 + 11x - 30 < 0$

	$x < 5$	$5 < x < 6$	$x > 6$
$(x - 6)$	-	-	+
$(x - 5)$	-	+	+
$-(x - 6)(x - 5)$	-	+	-

Solution : $x < 5$ or $x > 6$