Set Notation

Example 1:

Solve the following, writing your answers in set notation and then interval notation…

$$x^2 + 3x - 10 < 0$$

Correct Answer	Set Notation	Interval Notation
$-5 < x < 2$	$\{x : x > -5\} \cap \{x : x < 2\}$	$x \in (-5,2)$

Example 2:

Solve the following, writing your answers in set notation and then interval notation…

$$x^2 + 4x - 21 \geq 0$$

Correct Answer	Set Notation	Interval Set Notation
$x \leq -7$ or $x \geq 3$	$\{x : x \leq -7\} \cup \{x : x \geq 3\}$	$x \in (-\infty, -7] \cup [3, \infty)$

Now try these…

1. $3x \leq 15$
2. $x^2 + x - 2 \leq 0$
3. $x^2 - 2x - 3 > 0$
4. $(x + 2)(x - 1) > 4$
5. $x(x - 1) \leq 20$
6. $x^2 \geq 4x - 3$