Linear Inequalities

Solve each of the following linear inequalities and include a number line:
Note: for inequalities, there is not just one value for *x* that satisfies the equation, there is a range of answers!

Example 1
$3x - 2 \geq 4$

Example 2
$-2x + 3 < 3x - 2$

Example 3
$-4(x - 2) \leq 2(3x - 1)$

Example 4
$4 > \dfrac{x+1}{3} \leq 4x - 7$

Homework : Text pg 213-215 # 1-7, 8-10, 15

Polynomial Inequalities

Solve the following polynomial inequalities. Use Graph paper for this note.
Again, there will be a range of values of x that satisfy the inequalities.

Example 1
$(x - 2)(2x + 1)(x - 3) > 0$

Example 2
$3x(x + 1) + 10(x - 1) \leq 0$

Example 3
$x^3 + 5x^2 - 2x < 24$

Homework : Text pg 225 # 2,3, 5,6,7