Inequalities Review

1. Does the value satisfy the inequality.
   a) $x = 10 \quad 3x - 2 < 13$
   b) $x = -2 \quad 2(3 - x) - 1 \geq 7$

2. Solve the inequality
   a) $-3x + 2 \geq x + 18$
   b) $2(x + 3) < x + 4$
   c) $3(2x - 1) \geq 2(1 + x)$

3. Solve the inequalities by graphing
   a) $(x - 2)^2 - 4 > 0$
   b) $3x^2 + 12x + 9 < 0$
   c) $-x^2 + 2x \geq 0$

4. Solve using the roots and test points method.
   a) $x^2 - 2x > 63$
   b) $2x^2 - 7x - 30 \geq 0$

5. Solve using the sign analysis method
   a) $x^2 + 8x - 48 < 0$
   b) $x(6x + 5) \geq 4$