Steps to Solve Polynomial Inequality

1. Get 0 on one side of inequality
2. Factor Polynomial
3. Identify Zeros of Polynomial
4. Make sign chart with zeros.
5. Answer Question

Solve each polynomial inequality. Give your answer in interval notation.

1. \((x - 2)(x + 3)(x) \leq 0\)

2. \((x + \frac{1}{2})(x - 3) > x(x + \frac{1}{2})(x - 3)\)

3. \((x - 3)(4 - x)(x + 1)^2(x + 2)^3 > 0\)

4. \(x(x + 5) \geq -4\)

5. \((x^2 - 3)(x + 2)(x - 1)^2 \leq 0\)

6. \(x^5 < 4x^3\)

7. \(x^2 - 4x + 3 \geq (x + 2)(x - 5)\)