8-1 Solving Inequalities
Solving Inequalities for Polynomials

1. Find Boundary Points

2. Find Solution Intervals

Make a sign chart to be more efficient and use multiplicity rules and end behavior models.

Determine the x-values that cause the polynomial to be a)zero b)positive c)negative

$$f(x) = (x+7)(x+4)(x-6)^2$$

1. Find where the polynomial is zero, positive, or negative

$$f(x) = (x+3)(x+1)^2(x-4)^2$$

Solve the Polynomial Inequality

$$x^3 - 4x^2 - x + 4 \leq 0$$

Sign chart

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Solve the Polynomial Inequality

$$x^4 - 4x^3 - 7x^2 + 22x + 24 \leq 0$$