Polynomial Inequalities

When solving a polynomial inequality,

1. Determine the _____.
2. _____the solution.
3. Write the solution as an _____ or in _____.

Use solid points for _____ or _____ and open points for _____ or _____.

One way to help visualize the solution is to imagine the inequality's left and right sides are functions. Consider the domain where the polynomial is above or below the horizontal line represented by the constant.

1. $(x-3)(x+4)>0$

2. $(x+6)(2x+5)(x-8)<0$

3. $x^2+3x-8\le 2$

4. $-7(x+2)(x-1)^2(x+3)\ge 0$