

MAC1105 College Algebra Practice Problems  
1.9 Polynomial and Rational Inequalities

Solve the following inequalities. Write your answer in interval notation.

1.  $(x-5)(x+2) < 0$

2.  $(x+1)(x-2)(x+4) > 0$

3.  $2x^2 + 9x + 4 < 0$

4.  $x^2 \geq x + 12$

5.  $2x^2 + 4x + 1 < 0$

6.  $x^2 + 6x + 9 \leq 0$

7.  $9 - x^2 < 0$

8.  $x^3 + 7x^2 - x - 7 < 0$

9.  $\frac{3-x}{x+8} > 0$

10.  $\frac{2x-3}{3x-7} \leq 0$

11.  $\frac{x-3}{x+8} \leq 2$