

Homework: Polynomial and Rational Inequalities

In Problems 1-11, solve each polynomial inequality and express each solution set in interval notation

1. $(x-6)(x+1) < 0$	2. $x^2 - 7x + 10 \geq 0$
3. $x^2 - 4x + 4 < 0$	4. $3x^2 - 17x + 10 \leq 0$
5. $8x^2 > -29x + 12$	6. $7x^2 - 5x \leq 0$
7. $x^2 - 8x + 2 > 0$	8. $(x+8)(x+1)(x-3) \geq 0$
9. $(x-4)^2(x+5) < 0$	10. $x^3 - 6x^2 - 9x + 14 \leq 0$
11. $x^3 > -8x^2$	

In Problems 12-15, solve each rational inequality and express each solution set in interval notation

12. $\frac{x-5}{x+2} < 0$	13. $\frac{3x-2}{x+7} \geq 0$
13. $\frac{(x-5)(x+2)}{x+8} \geq 0$	13. $\frac{x+1}{x-2} \leq 2$