



**PROBLEMS AND SOLUTIONS - POLYNOMIAL AND RATIONAL INEQUALITIES**  
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**PLEASE NOTE THAT YOU CANNOT ALWAYS USE A CALCULATOR ON THE ACCUPLACER - COLLEGE-LEVEL MATHEMATICS TEST! YOU MUST BE ABLE TO DO SOME PROBLEMS WITHOUT A CALCULATOR!**

**Problem 1:**

Find the solution set for  $x^2 - 2x > 8$  in Interval Notation.

**Problem 2:**

Find the solution set for  $x^2 - 9 < 0$  in Interval Notation.

**Problem 3:**

Find the solution set for  $2x^3 \geq -16x^2 - 30x$  in Interval Notation.

**Problem 4:**

Find the domain of the function  $y = x^2 \sqrt{9 - x^2}$  in Interval Notation.

**Problem 5:**

Find the solution set for  $\frac{5}{x-2} < \frac{17-x}{2x-4}$  in Interval Notation.

**Problem 6:**

Find the solution set for  $\frac{x}{x+3} \geq 0$  in Interval Notation.



## SOLUTIONS

You can find detailed solutions below the link for this problem set!

1. $(-\infty, -2) \cup (4, \infty)$	2. $(-3, 3)$	3. $[-5, -3] \cup [0, \infty)$
4. $[-3, 3]$	5. $(2, 7)$	6. $(-\infty, -3) \cup [0, \infty)$