

Inequalities in One Variable

Review:

- Write an inequality for:
 - $(-2, 6]$
 - $[4, \infty)$
- Solving inequalities – Main thing to remember is when multiplying or dividing by a negative, be sure to switch the direction of the inequality.
 - EX: Solve: $6x - 4 \leq 2 + 8x$

- Solve: $3 + \frac{2}{7}x > x - 2$

- Solving absolute value inequalities: Handled the same as solving absolute value equations.
 - Solve: $|1 - 2x| < 5$

- $2|x + 10| \geq 9$

Solving Polynomial Inequalities

- Find all zeros
 - Put zeros in order from least to greatest
 - “Cover” entire number line
 - Select test values in each interval
- EX: Solve: $x^2 - x - 20 < 0$. Then graph solution set.

- EX : Solve : $4x^2 - 5x > 6$