Solving Inequalities

Name _____
Date _____ Period _____

Inequality

a comparison of two expressions

4 inequality signs

...greater than...

...greater than or equal to...

...less than...

...less than or equal to...

Rules for Solving and Graphing Inequalities

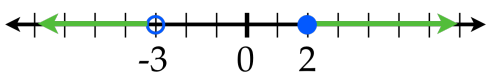
1. When multiplying or dividing by a negative, you must flip the sign.

Example: $-2x > 4$

$x < -2$

2. When plotting your point...
   > or < , plot an open point
   ≥ or ≤ , plot a closed point

Example: $x < -3$ $x \geq 2$



3. When shading your graph...
   $x <$ or $x \leq$, shade to the left
   $x >$ or $x \geq$, shade to the right

$6x + 10 > 2x + 14$

$6 + 3(x - 4) > 4x$

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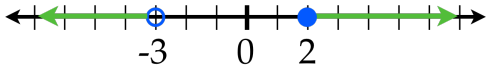

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