CHAPTER 6 SECTION 1C

Solving 1-step Inequalities

Inequality symbols

- Used to compare 2 non-equal values

Symbol	Read as
<	" is less than"
>	" is greater than"
≤	" is less than or equal to"
≥	" is greater than or equal to"

Solving Inequalities

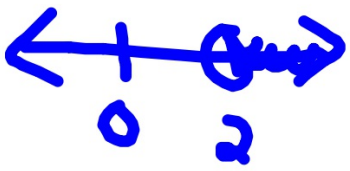
- Steps for solving:
  - Perform opposite operation to solve for the variable
  - If you multiply or divide by a negative number, you must FLIP the inequality sign
  - Graph the solution on a number line

Examples:

1. $4x > 8$

$\frac{4x}{4} > \frac{8}{4}$

$x > 2$



2. $2x < 4$

$\frac{2x}{2} < \frac{4}{2}$

$x < 2$

Examples:

3. $-2x \leq 8$

$\frac{-2x}{-2} \geq \frac{8}{-2}$

$x \geq -4$

4. $-3x \geq -9$

$\frac{-3x}{-3} \leq \frac{-9}{-3}$

$x \leq 3$

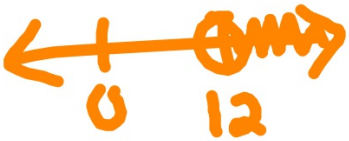
Examples

5. $\frac{x}{5} \leq 2.5$

$x \leq 10$

6. $\frac{x}{3} > 4.3$

$x > 12$



Examples

7. $\frac{x}{-2} < 3$ ·-2

$x > -6$

8. $\frac{x}{-4} > -1$ ·-4

$x < 4$

On your own

- 9. $3x < 18$

$-3 \quad -3$

$x > -6$

- 10. $2x < 0$

$\frac{2}{2} \quad \frac{2}{2}$

$x < 0$

- 11. $\frac{x}{-2} \leq 2$

$x \geq -6$

- 12. $\frac{x}{4} > -3$

$x > -12$

Classwork

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