CHAPTER 6 SECTION 1B

Solving 1-step Inequalities

Inequality symbols

□ Used to compare 2 non-equal values

□ **Symbol**	**Read as**
□ $<$	" is less than"
□ $>$	" is greater than"
□ $\leq$	" is less than or equal to"
□ $\geq$	" is greater than or equal to"

Solving Inequalities

- The solutions to an inequality is a range of numbers (is not just a single number)

- Steps for solving:
  - Perform opposite ~~operation~~ operation to solve for the variable
  - Draw a number line and label the key points
  - Mark the appropriate dot (open or closed)
  - Shade in the correct region

Examples:

1. $x + 5 > 3$

   $-5 \quad -5$

   $x > -2$

   $-2 \quad 0$

2. $x - 2 < 4$
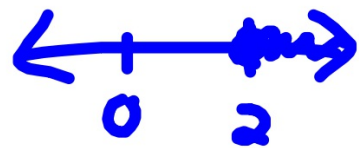
   $+2 \quad +2$

   $x < 6$

   $0 \quad 6$

Examples:

3. $x - 1 \leq 8$

$+1 \quad +1$

$x \leq 9$

0 9

4. $x - 3 \geq -1$

$+3 \quad +3$

$x \geq 2$
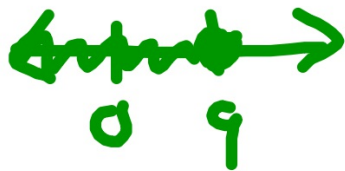
0 2

Examples

5. $x + 4 \leq 2$
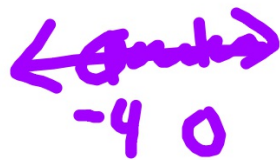
$-4 \quad -4$

$x \leq -2$

-2 0

6. $x + 5 > 1$

$-5 \quad -5$

$x > -4$

-4 0
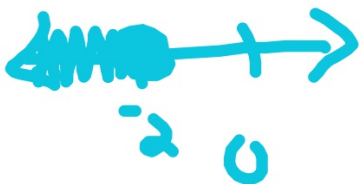
On your own

7. $x + 2 > -3$

$-2 \quad -2$

$x > -5$

8. $x - 1 < 0$

$+1 \quad +1$

$x < 1$

9. $x - 3 < -2$

$+3 \quad +3$
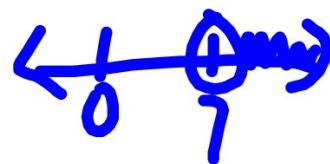
$x < 1$

10. $x + 2 > 9$

$-2 \quad -2$

$x > 7$

Classwork

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