

November 13th

Due Next Class: HW 4.1

Unit 4: Inequalities

Lesson 4.1: Intro to 1 Variable Inequalities

Get Ready:



Stand up with your colored number in hand.

Those of you with green #s line up in order with your backs against the left hand wall.

Those of you with orange #s line up in order with your backs to the windows (facing other line).

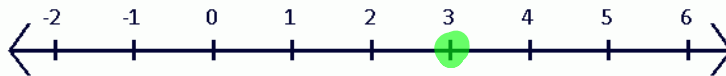
# Human Number Line

## Single Variable Inequalities



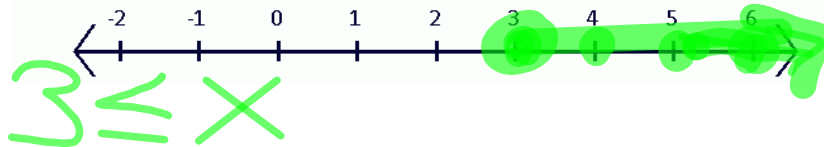
x equals 3

$$x = 3$$

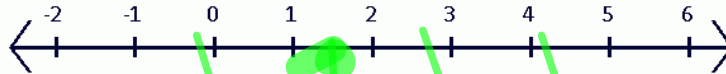


x greater than or equal to 3

$$x \geq 3$$

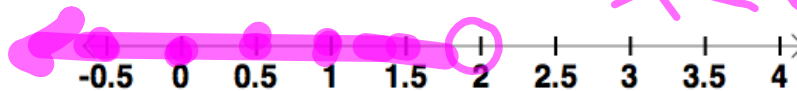


x is 38



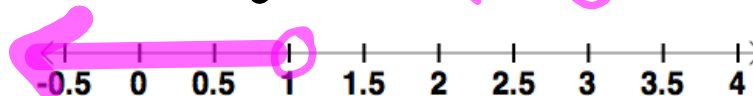
x is less than 2

$$x < 2$$



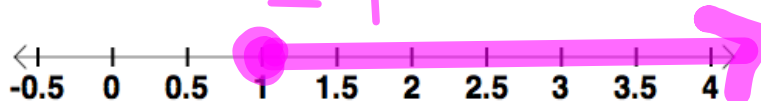
2x is less than 2

$$2x < 2 \quad x < 1$$



x is at least 1

$$x \geq 1$$



an "unknown" vs. a "variable"

# *Inequality Symbols*

~~X~~  $>$  Greater Than 

~~X~~  $\geq$  Greater Than or Equal to 

~~X~~  $<$  Less Than 

~~X~~  $\leq$  Less Than or Equal to 

## Translate & Graph in your Notes

1. "x is greater than 3"



2. "x is less than or equal to -10"



3. "x is not more than -1"

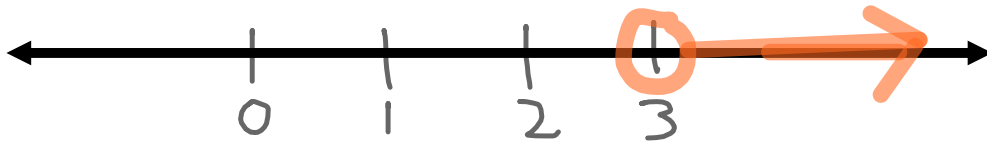


4. "x is at least 38"

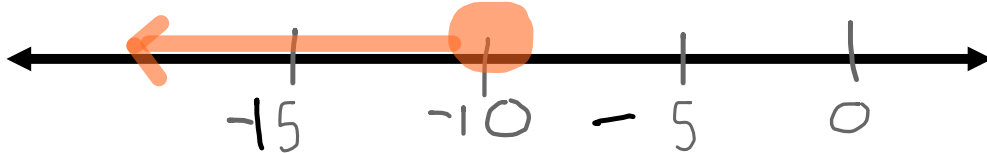


## Translate & Graph in your Notes

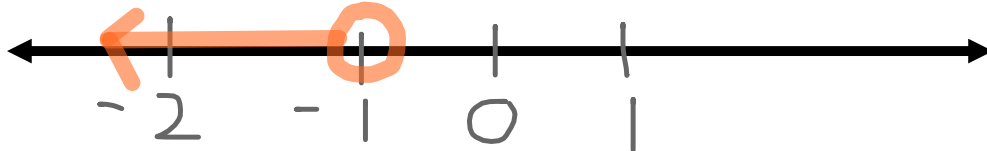
1. "x is greater than 3"  $x > 3$



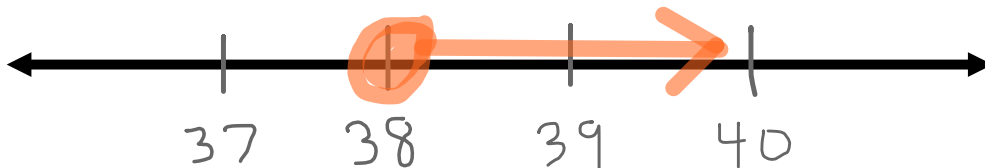
2. "x is less than or equal to -10"  $x \leq -10$



3. "x is not more than -1"  $x \leq -1$



4. "x is at least 38"  $x \geq 38$



## Late To School?

Scenarios:

← 8:59am on time school

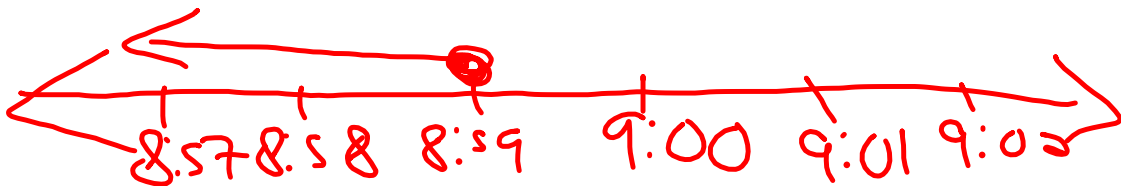
9:00am → late to school

← 8:55 on time to school  
AND CLASS

In Your Groups: how many ways can you depict these policies *as inequalities*? Be creative in finding as many ways as you can to represent the different scenarios.

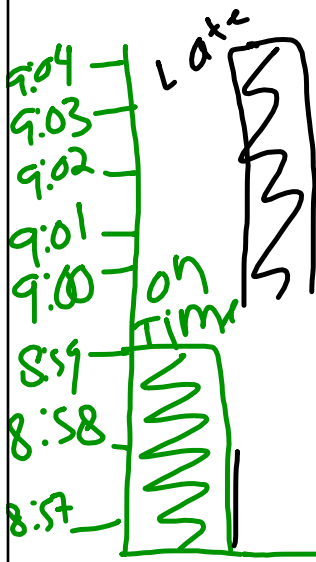


The Boy  
gets to school  
at 8:55, is  
on time



$$x \leq 8:55$$

The boy  
is on time



class &  
school on  
time

iSchool Arrival Scenarios

Due  
Tomorrow:

HW 4.1

VN 4.1