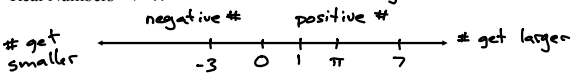
Algebra I

1-2

Order, Absolute Value, Opposites

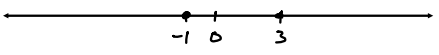
Real Numbers - All the numbers that you know about



Real Numbers can be broken down into:

Whole number - {0, 1, 2, ...}

Integers - {... -2, -1, 0, 1, 2 ...}



Symbols of Inequality (Order) -

>	Greater than	≥	Greater than or equal to
<	Less than	≤	Less than or equal to
		≠	Not equal

$8 \geq 8$

True

$8 \geq 7$

True

Write a number to represent each situation. (pg 33)
Then write the opposite of that situation and write a number to represent it.

1) Five steps down : -5

Five steps up : 5

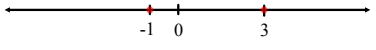
Translate each statement into symbols.

15) Six is greater than negative nine.

$6 > -9$

State two inequalities, one with > and one with <,
for the coordinates of the points shown in color.

31)



$-1 < 3$

or

$3 > -1$

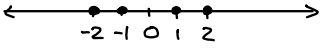
Complete using one of the symbols < or > to make a true statement.

41) 6 ___ 5 + 4

$6 < 9$

Graph the given numbers on a number line. Draw a separate line for each exercise. ~~Then list the numbers in increasing order.~~

47) 1, 2, -2, -1



Opposite - negative

opposite of 6 = -6

Absolute Value - Makes its argument not negative.

$|3| = 3$

$|-2| = 2$

$|0| = 0$

Simplify. (pg 38)

7) $6 + [-(-2)]$

$6 + 2$

8

15) $|-0.7| + |-3.3|$

$0.7 + 3.3$

4

Solve each equation over the set of real numbers. If there is no solution, explain why there is none.

*) $|x| = 7$

-7 or 7

*) $|x| = -5$

no solution

Evaluate each expression if $a = 1.5$, $b = -2$, and $c = -1.7$

39) $|a| + |b|$

$|1.5| + |-2|$

$1.5 + 2$

3.5

Assignment:

The Classic 1-8

2-54 every 4th (2,6,10, etc)

The Classic 1-9

2-44 even