

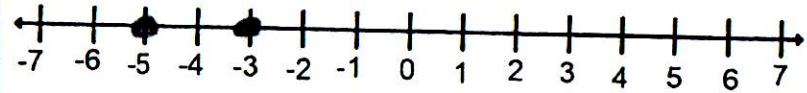
Math 7 Notes
(Absolute Value and Integers)
Section 3-1

Important vocabulary:

- *whole numbers 0, 1, 2, 3, 4, ...
- *integers whole #'s + their opposites
... -3, -2, -1, 0, 1, 2, 3, ...
- *positive integers
1, 2, 3, 4, ...
- *negative integers
... -3, -2, -1

We can compare integers by writing inequalities:

Greater Less than
 $-3 > -5$ and $-5 < -3$



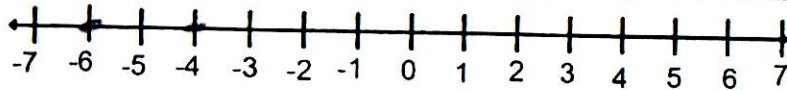
OR

We can compare integers by writing them in order:

Write these numbers from smallest to largest.

9, 0, -2, 3, -10

smallest $-10, -2, 0, 3, 9$ largest



← smaller

larger →

Less ↑ greater ↓

Place the correct inequality sign (< or >) in the circle to make a true statement.

1) $-6 < -4$

2) $0 > -5$

3) $-5 < 3$

~~4) $-5 > -7$~~

What type of integers are represented by these situations ?

Withdrawal
Profit
Loss

Negative
Integers

Positive
Integers

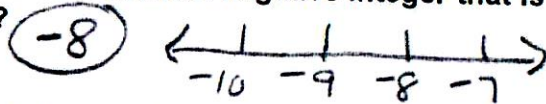
Deposit
Above sea level
Below sea level
loss of yards
gain of yards

loss of yds.
withdrawal
loss
Below
sea level

gain of yards
profit
deposit
gain of yards
above sea level

Practice Problems

1) What is the smallest negative integer that is greater than -9?

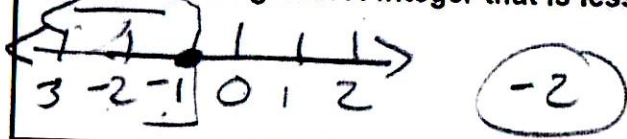


2) What is the median of these numbers?

-5 -8 7 -4 -6



3) What is the greatest integer that is less than -1?



The absolute value of a number is the distance it is away from zero on a number line. Distance is always positive.



$|3|$ means the distance three is from zero on the number line so

$$|3| = 3$$

$|-3|$ means the distance negative three is from zero on the number line so

$$|-3| = 3$$

$-|3|$ means the opposite of the absolute value of three so

$$-|3| = -3$$

Evaluate:

$$|-20| + |20|$$

$$20 + 20$$

$$40$$

$$-|-24|$$

$$-24$$

$$7 + |-2|$$

$$7 + 2$$

$$9$$

$$4|3| + |-5|$$

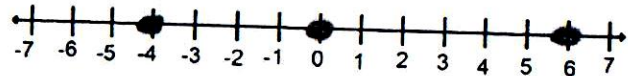
$$4 \cdot 3 + 5$$

$$12 + 5$$

$$17$$

Graph each set of integers on the number line.

1) $\{-4, 0, 6\}$



2) $\{-2, -1, 0, 1, 2\}$

