

9-1 Understanding Integers (Page 450)

Positive Numbers - greater than zero

They may be written with a positive (+) sign but are usually written without it

Negative Numbers - less than zero

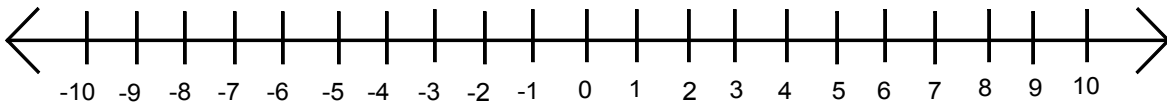
They are ALWAYS written with a negative (-) sign

Various ways to represent different situations:

- A gain of 20 yards in football = + 20
- Spending \$75 = -75
- 10 feet below sea level

Opposites are the same distance from 0 but on the opposite side of 0

Graphing integers and their opposites:



Ex # 1 = 9

Ex# 2 = -8

Absolute Value - distance from that number to zero -WILL ALWAYS BE POSITIVE

Finding Absolute Value:

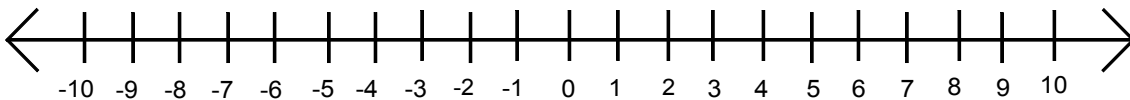
$$(7) = 7 \qquad (-9) = 9 \qquad (13) = 13$$

$$(14) = \qquad (-6) = \qquad (-11) =$$

9-2 Comparing and Ordering Integers (Page 454)

Comparing Integers using a number line:

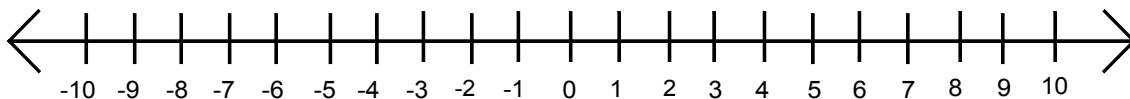
- If both are positive numbers - the one with greater value
- If one positive and one negative - the positive number
- If both are negative numbers - the one closer to zero



$$\# 1) 5 \bigcirc 9 \qquad \# 2) 5 \bigcirc -3 \qquad \# 3) -7 \bigcirc -9 \qquad \# 4) 0 \bigcirc -4$$

Ordering integers: Same thing - use a number line

$$\# 1) 4, -2, 1 \qquad \# 2) -2, 0, 2, 5$$



9-3 The Coordinate Plane (Page 458)

Coordinate Plane is formed by two number lines in a plane that intersect at right angles. The point of intersection is zero

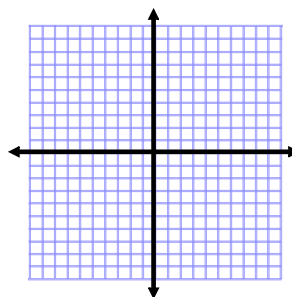
Axes - the two number lines

X Axis - horizontal axis

Y Axis - vertical axis

Quadrants - four parts of the coordinate plane

Origin - the point where the two axes intersect



Ordered Pair (X coordinate, Y Coordinate) You must walk to the elevator before you take it up or down.

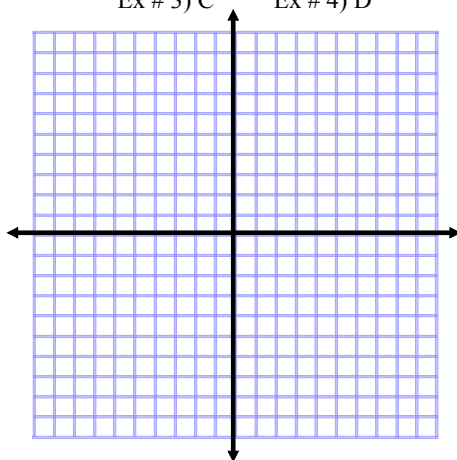
Give coordinate for the following letters:

Ex # 1) A

Ex # 2) B

Ex # 3) C

Ex # 4) D



Graph the each point given the ordered pair

Ex # 5) J (6, 4)

Ex # 6) O (3, 3)

Ex # 7) S (-4, 0)

Ex # 8) H (-5, -2)

