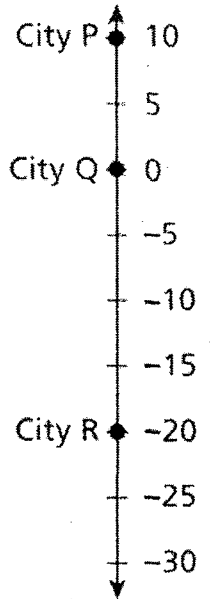


Lesson #1 – Integers and Absolute Value

Do Now:

1) The elevations, in feet, of three cities are marked on the number line shown on the right.



The point 0 on the number line represents sea level. Which statement must be true?

- a) City P and City Q are above sea level.
- b) City Q and City R are below sea level.
- c) City P is above sea level and City Q is below sea level.
- d) City P is above sea level and City R is below sea level.

2) What is the value of the expression below?

$$2[3(4^2 + 1)] - 2^3$$

$$2[3(16+1)] - 8$$

$$2[3(17)] - 8$$

$$2(51) - 8$$

$$102 - 8$$

$$94$$

- a) 156
- b) 110
- c) 94
- d) 48

Directions: With you table partner, come up with as many words as you can to represent positive and negative integers.

Positive Integers		Negative Integers	
up	receive	down	withdraw
above	elevation	below	deduct
Profit	after	loss	descend
gain	ascend	fall	before
rise		dropped	
save		spent	
deposit			

Directions: Express each statement as an integer.

1) I spent \$7.	-7	2) My skateboard ramp rises 5 feet.	5
3) I lost a 5 dollar bill.	-5	4) I had a fever. My temperature was 4° above normal.	4
5) I received \$10 for my birthday.	10	6) I awoke two hours before dawn.	2
7) I swam 500 feet below sea level.	-500	8) I made a profit of \$50.	50
9) I made a withdrawal of \$75.	-75	10) The temperature dropped 12 degrees.	-12
11) I made a deposit of \$25.	25	12) The elevator descended 4 floors.	-4

Directions: Find the value of the following problems. Show your work.

13) $ 14 $ 14	14) $ -5 $ 5	15) $ 20 - 10 $ $ 10 $ 10	16) $ 6 + 10 $ $ 16 $ 16
------------------	-----------------	---------------------------------	--------------------------------

Directions: Complete the statement using $<$, $>$, or $=$.

17) Compare 1 and $ -4 $. 1 $<$ 4		
18) $ -2 $ $>$ 2	-1 -1	19) -7 $<$ $ 6 $ -7 6

$$20) |10| \underline{<} |11|$$

$$10 \qquad 11$$

$$21) 9 \underline{=} |-9|$$

$$9 \qquad 9$$

$$22) |9-4| \underline{<} |6+10|$$

$$|5| \qquad |16|$$

$$5 \qquad 16$$

$$23) |4^2-2| \underline{<} |4 \cdot 5|$$

$$|16-2| \qquad |20|$$

$$|14| \qquad 20$$

$$14$$

24) Is the freezing point of airplane fuel or candle wax closer to the freezing point of water (0°)? Explain your reasoning.

Airplane fuel b/c it is 53° away from 0° where the candle wax is 55° away

Substance	Freezing Point ($^\circ\text{C}$)
Butter	35
Airplane Fuel	-53
Honey	-3
Mercury	-39
Candle Wax	55

