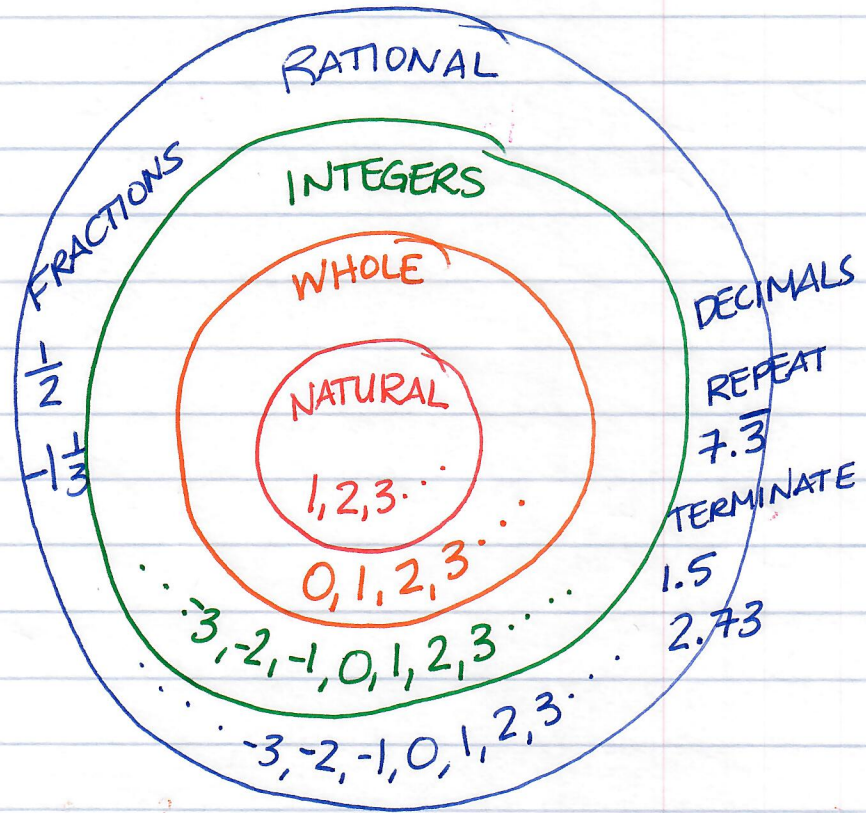


# UNIT 7 : RATIONAL EXPLORATIONS

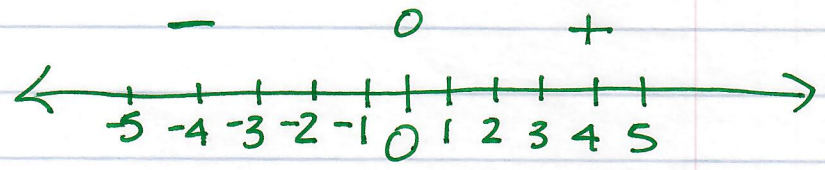


DEF

**INTEGER: POSITIVE WHOLE NUMBERS, THEIR OPPOSITES AND ZERO**

POSITIVE INTEGERS REPRESENT GREATER THAN ZERO

NEGATIVE INTEGERS REPRESENT LESS THAN ZERO



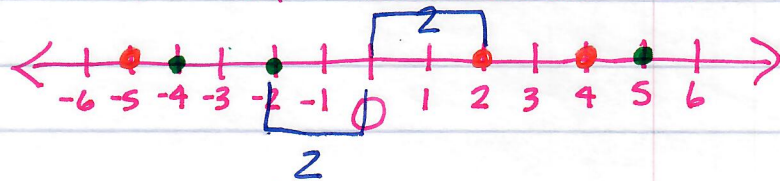
## WE USE INTEGERS TO REPRESENT SITUATIONS

- 1) A PROFIT OF \$60      60
- 2) A DECREASE OF  $10^\circ$       -10
- 3) A LOSS OF 3 YARDS      -3
- 4) A GAIN OF 12 OUNCES      12
- 5) 36 FEET ABOVE SEA LEVEL      36
- 6)  $20^\circ$  BELOW ZERO      -20

DEPOSIT +  
DECREASED -

WITHDRAW -  
INCREASED +

## GRAPHING ON A NUMBER LINE



GRAPH {5, -2, -4}

LEAST → GREATEST      -4, -2, 5

DEF

OPPOSITES: NUMBERS THAT ARE THE SAME DISTANCE FROM ZERO IN OPPOSITE DIRECTIONS.      -4, 4      -2, 2      5, -5

DEF

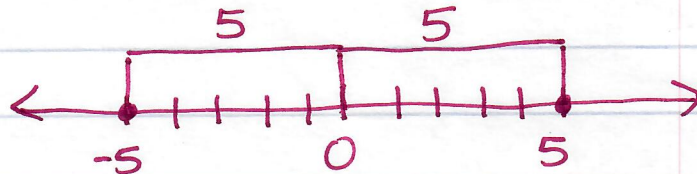
ABSOLUTE VALUE IS THE DISTANCE BETWEEN  
A NUMBER AND ZERO ON A NUMBER LINE

| | = TAKE ABSOLUTE VALUE

ABSOLUTE VALUE IS ALWAYS POSITIVE!

$$|5| = 5$$

$$|-5| = 5$$



$$1) |25| = 25$$

$$2) |-150| = 150$$

$$3) -|379| = -379$$

$$4) |-2486| = 2486$$

$$5) |1273| = 1273$$

$$6) -|-68| = -68$$

$$7) |-5| + |16| = 21$$

$$5 + 16$$

$$8) |-30| - |-12| = 18$$

$$30 - 12 =$$

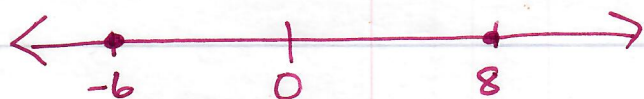
COMPARING INTEGERS

>, <, =

NUMBER FURTHER TO THE LEFT IS THE SMALLEST

NUMBER FURTHER TO THE RIGHT IS THE BIGGEST

$$8 > -6$$



$$2) \underline{|-6|} = \underline{|6|}$$

$$3) -122 \leq 300$$

$$4) \underline{|-4|} = 4$$

$$5) \underline{|-12|} > 9$$

$$6) \underline{|-21|} \geq 0$$

$$7) 1 = \underline{|-1|}$$

$$8) -2 \geq -4$$

$$9) \underline{|4|} \geq -4$$



$$10) 20 \geq 0$$