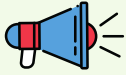


# Classifications of Numbers

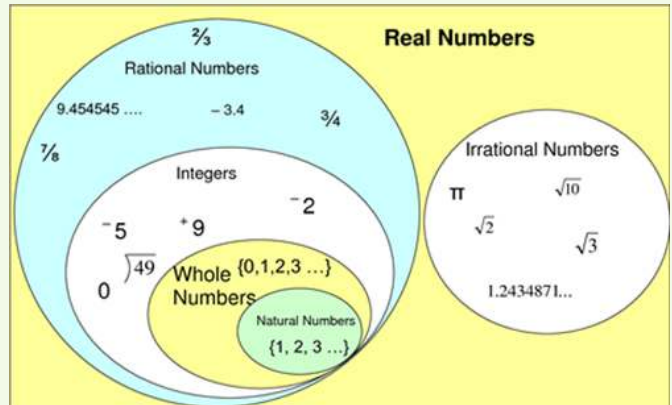
**BASIC NUMBERS CAN BE CLASSIFIED INTO A SET CALLED REAL NUMBERS. REAL NUMBERS INCLUDE RATIONAL NUMBER AND IRRATIONAL NUMBER**



**BEFORE WE GET TOO COMPLEX. LET'S START WITH THE SMALLEST GROUP OF RATIONAL NUMBER.**



**THE FIRST SET OF RATIONAL NUMBER IS CALLED NATURAL OR COUNTING NUMBER YOU USE THESE THE MOST, ESPECIALLY FOR COUNTING THINGS. 1,2,3,4,5,6,7,8,9,10 .....**



## 1 Circle all the Counting Numbers



- 7    23    4/2    3/2    9    -4

**4/2 IS COUNTING NUMBER BECAUSE IT CAN BE SIMPLIFIED TO '2'**

## 2 Circle all the Whole Numbers

- 0.89    0    0.79    9/1    -7

**THE NEXT SET IS CALLED WHOLE NUMBER**

**IT INCLUDES ALL NATURAL OR COUNTING NUMBERS INCLUDING "0" 0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15, .....**



**THEN COMES THE "INTEGERS" WHICH INCLUDES ZERO, ALL NATURAL NUMBERS, AND THE NEGATIVES OF ALL COUNTING NUMBERS. -4, -3, -2, -1, 0, 1, 2, 3, 4,**

## 3 Circle all the Integers

- 0.11    23    2/3    1/7    -11

integer →  $\frac{8}{7}$      $\frac{12}{11}$

**AND FINALLY WE HAVE THE OTHER RATIONAL NUMBER. THIS SET INCLUDES ALL THE OTHER SETS MENTIONED BEFORE AND FRACTIONS THAT ARE MADE UP OF TWO INTEGERS. DON'T FORGET, ZERO CAN NEVER BE IN THE DENOMINATOR (IN THE BOTTOM)**



**THESE OTHER RATIONAL NUMBERS CAN ALSO BE WRITTEN AS DECIMALS. BUT THEY ONLY INCLUDES ONE THAT TERMINATE (END), OR REPEAT.**

→ **Terminate decimals.**

2.1    0.5    3.7    1.9

→ **Non Terminate decimals.**

0.3333    0.5656    3.7777    1.9999

## 4 Circle all the Rational Numbers

- 0.89    0    0.79    9/1    -2.1    -7    9/26    0.1212

**Irrational Number**

**THE BEST WAY TO SEE IRRATIONAL NUMBER IS TO USE A CALCULATOR. WHAT IS THE SQUARE ROOT OF 4. HOPE YOU GOT 2. WHICH IS RATIONAL NUMBER. NOW TRY THE SQUARE ROOT OF 3 YOU WILL GOT SOMETHING LIKE 1.73205080756887 AS YOU CAN SEE IT NEVER STOP AND DOES NOT REPEAT OR HAVE A PATTERN. IT IS IRRATIONAL**