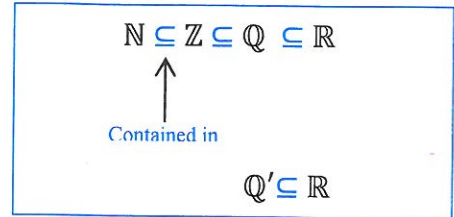
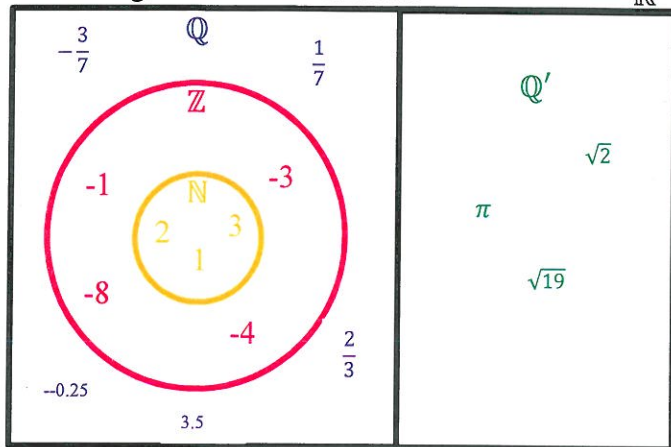
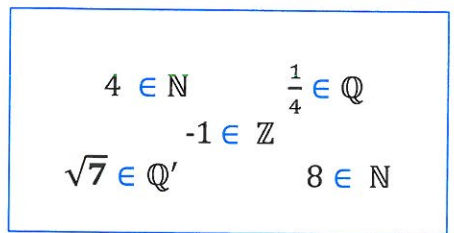


## Numbers

Venn Diagram of Real Numbers



$\in$  = Element  
 $\subseteq$  = Subset



**N:** represents the set of natural numbers  
 Example: 0, 1, 2, 3...

**Z:** represents the set of integers  
 Example: ...-3, -2, -1, 0, 1, 2, 3...

**Q:** represents the set of all rational numbers (numbers that have a finite or repeating decimal and can be written as a fraction)  
 Example: 2.25,  $3.\bar{7}$ ,  $\frac{1}{3}$ ,  $\frac{2}{3}$ , 0.75,  $-\frac{7}{3}$

**Q':** represents the set of all irrational numbers (numbers with an infinite non-repeating decimal)  
 Example:  $\sqrt{2}$ ,  $\pi$ ,  $\sqrt{19}$

**R:** represents the set of all real numbers.  
 All real numbers can be represented on the number line. It is made up of all the rational and irrational numbers.

- $\mathbb{R}_+$  = all positive real numbers including zero
- $\mathbb{R}_-$  = all negative real numbers including zero
- $\mathbb{R}_*$  = all non-zero real numbers