

Another word for a collection is a set.

The objects in a set are called elements

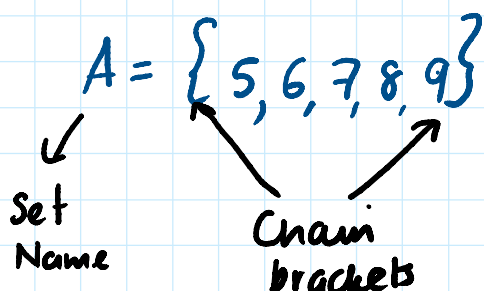
Symbol for element  $\in$

Listing elements in a set

We list the elements in chain brackets  $\{ \}$  and separate each element with a comma.

We use a Capital Letter to name the set.

Eg 1) If  $A$  is the set of natural numbers  $\mathbb{N}$  greater than 4 and less than 10. List all the elements in set  $A$ .



How many elements in set  $A$ ?

5 elements

$\#A$  cardinal number.

NOTE: In any set the element is listed ONLY ONCE.

Eg 2) The set  $B$  is the vowels in the English language. Write down the list of elements in set  $B$ .

$$B = \{a, e, i, o, u\} \quad \#B = 5.$$

Eg 3) Set  $C$  is the letters in the word SCIENCE  
(write out the list of elements in set  $C$ )

Q3) Set C is the letters on the word SCIENCE

Write out the list of elements in set C.

$$C = \{S, C, I, E, N\} \quad \# C = 5$$

H/W Pg 33 Q1

**Exercise 3.1**

1. From the given Venn diagram, list the elements of each of these sets:

- (i)  $A$                       (ii)  $B$   
(iii)  $A \cap B$               (iv)  $A \cup B$

