

SETS

Sets in mathematics, are an organized collection of objects and can be represented in set-builder form or roster form.

- * Sets are always represented by curly brackets $\{ \}$.
- * Sets are always named by capital letters.
- * The elements of set are represented by \in .
- * They are divided by commas.

DEFINITION: A set is a collection of well defined distinct objects.

The objects of the set are called elements.

Ex: A set of the letters of MATHEMATICS

$$A = \{M, A, T, H, E, I, C, S\}$$

M is a element of A = $M \in A$

$$\text{EX: } A = \{2, 3, 5, 7\}$$

$$2 \in A$$

$$9 \notin A$$

$$3 \in A$$

$$5 \in A$$

$$7 \in A$$

EXERCISE 10'A

- (i) All the easy problems in your text book. (No)
A: Because the problems may be easy for someone and difficult for someone.
- (ii) All the three sided figures. (Yes)
- (iii) The first five counting no. (Yes)

- (iv) All the tall boys of your class. (No)
A: Someone can be tall for you but not for others.
- (v) Last three days of your class a week. (Yes)
- (vi) All triangles that are difficult to draw. (No)
A: Maybe the triangle easy for you maybe difficult for me.
- (vii) The first three letters of the english alphabet. (Yes)
- (viii) All tasty fruits. (No)
A: Maybe some fruits are tasty for others but not for me.
- (ix) All the clever boys of class 6. (No)
A: Someone is clever according to me but not for someone else.
- (x) All the good schools in Delhi. (No)
A: Someone may not like XYZ school but others may not.
- (xi) All the girls in your class whose heights are less than your height. (Yes)
- (xii) All the boys in your class whose heights are more than your height. (Yes)