classmate
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Home Work

Exercise - 10 (B)

2. If set B = {4, 6, 8, 10, 12, 14}, state which of the following statements are correct and which are wrong:

(i) $5 \in B$ (ii) $12 \in B$. (iii) $14 \notin B$ (iv) $9 \in B$

(v) B is the set of even numbers between 2 and 16.

(vi) 4, 6 and 10 are the members of the set B.

Also, write the wrong statements correctly.

Solution:

(i) Given
Set B = {4, 6, 8, 10, 12, 14}
Here, element 5 does not belong to set B.
Hence, the given statement is false.

(ii) Given
Set B = {4, 6, 8, 10, 12, 14}
Here element 12, belongs to set B
Hence, the given statement is True.

(iii) Given
Set B = {4, 6, 8, 10, 12, 14}
Here, element 14 belongs to 14.
Hence the given statement is True.

(viii) If M is the set of letters used in the word 'Mumbai' then M = {M, u, m, b, a, i} (True)

Exercise - 10 (c)

4. Write each of the following set in Roster (tabular) form and also in set-builder form:

(i) Set of all natural numbers that can divide 24 completely.
(ii) Set of odd numbers between 20 and 35.
(iii) Set of letters used in the word 'CALCUTTA'.
(iv) Set of names of the first five months of a year.
(v) Set of all two-digit numbers that are perfect squares as well.

Solution:

(i) The Roster form is {1, 2, 3, 4, 6, 8, 12, 24}
The set-builder method is {x : x ~~is a odd numbers between 20 and 35~~ is a natural numbers that can divisible 24 completely}

(ii) The Roster form is {21, 23, 25, 27, 29, 31, 33}
The set-builders method is {x : x is a odd numbers between 20 and 35}.

(iii) The Roster form is {C, A, L, U, T}
The set builders method is {x : x is a letter used in the word 'CALCUTTA'}

(iv) The Rosterr form is {January, February, March, April, May}.
The set builderr method is {x : x is a name of the first five months of a yearr}.

(v) The Roasterr form is {16, 25, 36, 49, 64, 72 ....}
The set builderr method is {x : x is a two-digit huimberrs that arre perrfect squarres as well}

5. Write in Rosterr form, the set of :

(i) the first fourr odd ~~numberr~~ natural numberrs each divisible by 5.

(ii) the counting numberrs each divisibole 15 and 35 ; each of which is divisible by 6.

(iii) the namres of the last threee day of a week.
(iv) the names of the last fourr months of a yearr.

Solution:

(i) {5, 15, 25, 35} is a roasterr form.
(ii) {18, 24, 30} is a roasterr form.
(iii) {Friday, saturday, sunday} ~~is a~~ is a roasterr form.
(iv) {septemberr, octoberr, Novemberr, decemberr} is a Roasterr form.