

30/sep/21
29/sep

Maths

(H.W.)

Dt - 29 / Sep / 21

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Topic - Ex 10 B Q 2 & Q 3 , Ex 10 C Q 4 & Q 5

Ex 10 B

Q2. If set $B = \{4, 6, 8, 10, 12, 14\}$, state which of the following statements are correct and which are wrong:

(i) $5 \in B$ - Wrong . $5 \notin B$

(ii) $12 \in B$ - Correct

(iii) $14 \in B$ - Correct

(iv) $9 \in B$ - Wrong . $9 \notin B$

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

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

Also, write the wrong statements correctly.

Q3. State whether true or false

(i) Sets $\{4, 9, 6, 2\}$ and $\{6, 2, 4, 9\}$ are not the same. - False

- (i) Sets whether true o
- (ii) Sets $\{0, 1, 3, 9, 4\}$ and $\{404, 0, 1, 3, 9\}$ are the same. - True
- (iii) Sets $\{5, 4\}$ and $\{5, 4, 4, 5\}$ are the not the same. - False
- (iv) Sets $\{8, 3\}$ and $\{3, 3, 8\}$ are the same. - True
- (v) Collection of vowels used in the word 'ALLAHABAD' forms a set - True
- (vi) If P is the set of letters in the word 'ROOP' then $P = \{p, o, r\}$ - True
- (vii) If M is the set of letters used in the word 'MUMBAI' then:
then: $M = \{m, u, b, a, i\}$ - True

• Ex 10C

Q4. Write each of the following sets in Roster (tabular) Form and also in Set-Builder Form :

- (i) Set of all natural numbers that can divide 24 completely.

⇒ Roster (tabular) method - $\{1, 2, 3, 4, 6, 8, 12, 24\}$

⇒ Set - Builder method - $\{n: n \text{ is a natural number which divides 24 completely}\}$

(ii) Set of odd numbers between 20 & 25

⇒ Roster (tabular) method - $\{21, 23, 25, 27, 29, 31, 33\}$

⇒ Set - Builder method - $\{n: n \text{ is an odd number between 20 & 35}\}$

(iii) Set of letters used in the word 'CALCUTTA'

⇒ Roster (tabular) method - $\{c, a, l, u, t\}$

⇒ Roster (tabular) method - $\{c, a, l, u, t\}$

⇒ Set - Builder method - $\{n: n \text{ is a letter used in the word 'CALCUTTA'}\}$

(iv) Set of names of the first five months of a year -

⇒ Roster (tabular) method - $\{\text{January, February, March, April, May}\}$

⇒ Set - Builder Method - $\{x: x \text{ is a name of first five months of a year}\}$
~~year~~ } & year }

~~⇒~~
(v) Set of ^{all} two-digit numbers that are perfect squares as well.

~~5. Write, in~~

⇒ Roster (Tabular) method - $\{16, 25, 36, 49, 64, 81\}$

⇒ Set - Builder Method - $\{x: x \text{ is a perfect square two digit number}\}$

5. Write, in Roster Form, the set of :

(i) The first four odd natural numbers each divisible by 5.

⇒ $\{5, 15, 25, 35\}$

(ii) The even counting numbers between 15 and 35; each of which is divisible by 6.

⇒ $\{18, 24, 30\}$

(iii) ~~two~~ The names of the last three days of a week.

⇒ { Friday, Saturday, Sunday }

IV) # The names of the last four months of a year.

⇒ { September, ~~October~~ October, November, December }
