

EXERCISE 10(C)

1. (i) $A = \{3, 6, 9, 12, 15\}$

(ii) $B = \{-4, -3, -2, -1, 0, 1, 2, 3, 4\}$

(iii) $C = \{C, S, H, O, L\}$

(iv) $D = \{11, 13, 15, 17, 19\}$

(v) $E = \{A, E, I\}$

(vi) $F = \{M, D, R, S\}$

2. (i) $A = \{2, 3, 5, 7, 11, 13, 17, 19\}$

(ii) $A = \{1, 4, 6, 8\}$

(iii) $B = \{2, 4, 6, 8\}$

(iv) $C = \{a, b, c, d, e, f, g, h\}$

(v) $D = \{b, a, s, k, e, t\}$

(vi) $E = \{\text{jaiपुर, ~~jaiपुर~~ jaiपुर, jalalपुर, jadia}\}$

(vii) $F = \{\text{circle, triangle, square, rectangle}\}$

(viii) $G = \{0, A\}$

(ix) $H = \{1, 4, 9\}$

3. (i) $\{x: x \text{ is a } \cancel{\text{even}} \text{ even number } 1 < x < 11\}$
- (ii) $\{y: y \text{ is a prime number less than } 12\}$
- (iii) $\{a: a \text{ is a month that starts with J}\}$
- (iv) $\{z: z \text{ is a vowel in the alphabets}\}$
- (v) $\{B: B \text{ is a day that starts with T}\}$
- (vi) $\{v: v \text{ is a number which is the squares of } 1, 4, 9, 16, 25 \text{ to } 5\}$
- (vii) $\{x: x \text{ is a multiple of } 5\}$

4. (i) Tabular method: $A = \{1, 2, 3, 4, 6, 8, 12, 24\}$
Set-builder method: $A = \{x: x \text{ is the number that divides } 24 \text{ completely}\}$

(ii) Tabular method: $B = \{1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25\}$

(iii) Tabular method: $C = \{21, 23\}$
Set-builder method: $D = \{y: y \text{ is the } \cancel{\text{nos.}} \text{ odd nos. between } 20 \text{ and } 35\}$

(iv) Tabular method: $E = \{C, A, L, U, T, A\}$
Set-builder method: $F = \{z: z \text{ is the letters used in the word CALCUTTA}\}$

(iv) Tabular method: $G = \{\text{January, February, March, April}\}$
Set-builder method: $H = \{B : B \text{ is the first four months of a year}\}$

(v) Tabular method: $I = \{16, 25, 36, 49, 64, 81\}$
Set-builder method: $I = \{Z : Z \text{ is the two-digit nos. that are perfect squares}\}$

5. (i) $A = \{5, 15, 25, 35\}$

(ii) $F = \{18, 24, 30\}$

(iii) $M = \{\text{Friday, Saturday, Sunday}\}$

(iv) $P = \{\text{August, September, November, December}\}$

13-07-21
TUESDAY
C.W

★ FINITE SETS :

A set is said to be finite set if it has a limited number of elements.

EX: $\{1, 2, 3, 4, 5\}$

★ INFINITE SETS :

A set is said to be an infinite set if it has an unlimited no. of elements.

EX: $\mathbb{N} = \{1, 2, 3, 4, 5, 6, 7, \dots\}$

★ EMPTY/NULL SET :

It is a set that has no elements.

EX: Month with 35 days

$A = \{ \} = \emptyset$