

CLASS 7**WORKSHEET#3****CH:SETS**

Q1 . Write each of the following sets in set builder form.

i. $A = \{4, 6, 8, 9, 10, 12, 14, 15, 16, 18\}$

Ans:

$$\{x: x \text{ is a composite no.}, 1 < x < 20\}$$

$$\{x: x \text{ is an even no.}\}$$

ii. $B = \{1, 2, 3, 5, 6, 10, 15, 30\}$

Ans:

$$\{x: x \text{ is a prime no. less than } 30\}$$

$$\{x: x \text{ is a factor of } 30\}$$

iii. $C = \{-6, -4, -2, 0, 2, 4, 6, 8, 10\}$

Ans:

$$\{x: x = 2n, n \text{ belongs to Integers}, -4 < x < 6\}$$

$$\{x: x \text{ is a multiple of } 2\}$$

iv. $D = \left\{ \frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \dots, \frac{8}{9} \right\}$

Ans:

$$\{x: x = \frac{n}{n+1}, n \text{ belongs to } N, 1 \leq n \leq 8\}$$

$$\{x: x = \frac{n}{n}, n \text{ belongs to } N, 1 \leq n \leq 80\}$$

v. $E = \left\{ \frac{1}{3}, \frac{1}{5}, \frac{1}{7}, \frac{1}{11}, \frac{1}{13}, \frac{1}{19} \right\}$

Ans:

$$\{x: x = \frac{1}{n}, n \text{ belongs to prime}, 2 < n < 20\}$$

$$\{x: x = \frac{1}{n+1}, n \text{ belongs to prime}, 2 < n < 20\}$$

vi. $F = \{\text{May, June, July, August, September}\}$

Ans:

$$\{x: x \text{ is a month of year having } 30 \text{ days}\}$$

$$\{x: x \text{ is a month of year}\}$$

CLASS 7**WORKSHEET# 4****CH:SETS**

Q1. Identify whether the given pair consist of equal or equivalent but not equal sets or none:

i. A=Set of letters of the word 'FLOWER'.

B= Set of letters of the word 'FOLLOWER'

Equivalent set	Equal set
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ii. C={x:x belongs to N, $x+5=6$ }

D={x:x belongs to W, $x<1$ }

Equivalent set	Equal set
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iii. E= Set of first five whole numbers.

F= Set of first five Natural numbers

Equivalent set	Equal set
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iv. G={a,b,c}

H={x,y,z}

Equivalent set	Equal set
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v. J={x:x belong to N, Xis not equal to x}

K={x:x belong to N , $6 < x < 7$ }

Equivalent set	Equal set
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Q1. For each of the following pairs of sets, identify the disjoint and overlapping sets:

- i. $A = \{x : x \text{ is a prime number, } x < 8\}$
 $B = \{x : x \text{ is an even natural number, } x < 8\}$

DISJOINT SET	OVERLAPPING SET
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- ii. $C = \{x : x \text{ belong to } N, x < 10\}$
 $D = \{x : x \text{ belong to } N, x \text{ is a multiple of } 5\}$

DISJOINT SET	OVERLAPPING SET
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- iii $E = \{x : x = 4n, n \text{ belong } N\}$
 $F = \{x : x = 9n, n \text{ belong to } N\}$

DISJOINT SET	OVERLAPPING SET
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- iv. $G = \{x : x = 8n, n \text{ belong to } N \text{ and } n < 7\}$
 $H = \{x : x = 9n, n \text{ belong to } N \text{ and } n < 7\}$

DISJOINT SET	OVERLAPPING SET
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