

EXERCISE 10(D)

1.i) $\mathbb{N} \{3, 5, 7, \dots\}$ · Infinite Set

ii) $\{1, 2, 3, 4\}$ · Finite Set

iii) $\{\dots, -3, -2, -1, 0, 1, 2\}$ · Infinite Set

iv) $\{20, 30, 40, 50, \dots, 200\}$ · Finite Set

2.i) Set of counting numbers between 5 and 6 · Empty Set

ii) Set of odd numbers between 7 and 19 · Not, a empty set

iii) Set of odd numbers between 7 and 9. Empty Set

iv) Set of even numbers that are not divisible by 2. ~~Not a empty set~~ Empty Set

v) $\{0\}$. Not, a empty set

3. i) $\{3, 5, 7\}$ and $\{5, 3, 7\}$. Equal Sets

ii) $\{8, 6, 10, 12\}$ and $\{3, 2, 4, 6\}$. Equivalent Sets

iii) $\{7, 7, 2, 1, 2\}$ and $\{1, 2, 7\}$. Equal Sets

iv) $\{2, 4, 6, 8, 10\}$ and $\{a, b, d, e, m\}$.

Equivalent Sets

4. i) Set of integers. ~~Fin~~ Infinite Set

ii) $\{\text{Multiples of } 5\}$. Infinite Set

iii) $\{\text{Fractions between } 1 \text{ and } 2\}$. Infinite Set

iv) $\{\text{Number of people in India}\}$. Finite Set

v) Set of trees in the world. ~~Finite Set~~ Infinite Set

vi) Set of leaves in a tree. Finite Set

vii) Set of children in all the schools of Delhi. Finite Set

viii) $\{\dots, -4, -2, 0, 2, 4, 6, 8\}$. Infinite Set

ix) $\{-12, -9, -6, -3, 0, 3, 6, \dots\}$ Infinite Set

x) $\{\text{Number of points in a line segment 4 cm long}\}$

EXERCISE 10(E)

3. i) If $A = \{0\}$, then $n(A) = 0$. False

ii) $n(\emptyset) = 1$. False

iii) If $T = \{a, l, a, h, b, d, h\}$, then $n(T) = 5$. True

iv) If $B = \{1, 5, 51, 15, 5, 1\}$, then $n(B) = 6$. False

of even
 $A = \{ \text{Natural numbers less than } 10 \}$

$B = \{ \text{Letters of the word 'PUPPET'} \}$

$C = \{ \text{Squares of first four whole numbers} \}$

$D = \{ \text{Odd numbers divisible by } 2 \}$

Find:

i) $n(A)$

ii) $n(B)$

iii) $n(C)$

iv) $n(D)$

Ans $\rightarrow A = \{ 1, 2, 3, 4, 5, 6, 7, 8, 9 \}$

$B = \{ P, U, E, T \}$

~~$C = \{ 1, 4, 9, 16 \}$~~ $C = \{ 0, 1, 4, 9 \}$

$D = \{ \}$

$$i) h(A) = 4$$

$$ii) h(B) = 4$$

$$iii) h(C) = 1 \rightarrow 4$$

$$iv) h(D) = 0$$