H.W
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Exercise - 10 'D'

(1) i) {3, 5, 7, ...} Infinite

ii) {1, 2, 3, 4} Finite

iii) {....., -3, -2, -1, 0, 1, 2} Infinite

iv) {20, 30, 40, 50, ..., 200} Finite

(2) i) Sets of counting no.s between 5 and 6. Empty Set

ii) Sets of odd no.s between 7 and 19. Not an Empty Set

iii) Set of odd no.s between 7 and 9. Empty Set

iv) Set of even no.s that are not divisible by 2. Empty Set

v) {0} Not an Empty Set.

(3) i) {3, 5, 7} and {5, 8, 7}.

The elements in both the sets are same, i.e, 3, 5, 7.
Also, the no. of elements is same.

∴ This set is both equal and equivalent.

ii) {8, 6, 10, 12} and {3, 2, 4, 6}

different

The elements are ~~not the same~~ in both sets.
But, the no. of elements is same.

∴ These sets are equivalent.

iii) {7, 7, 2, 1, 2} and {1, 2, 7}

{7, 7, 2, 1, 2} = {7, 2, 1}

The elements in both sets are the same, i.e, 1, 2, 7.
Also, the no. of elements is same.

∴ These sets are both equal and equivalent.

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

The elements in both sets are different.
But, the no. of elements is same.

∴ These sets are equivalent.

(4) i) Set of integers - Infinite

ii) {Multiple of 5} - Infinite

iii) {Fractions between 1 and 2} - Infinite

iv) {Number of people in India - Finite

v) Set of trees in the world – Infinite

vi) Set of leaves up on a tree – Finite

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

viii) {..., -4, -2, 0, 2, 4, 6, 8} – Infinite

ix) {-12, -9, -6, -3, 0, 3, 6, ...} – Infinite

x) {No. of points in a line segment 4cm long} – Infinite

Exercise – 10 'E'

(2) i) n(A) → 9, elements are {1, 2, 3, 4, ..., 9}

ii) n(B) → 4, elements are p, u, s, t

iii) n(C) → 4, elements are 0, 1, 4, 9

iv) n(D) → 0, there are no elements in Set D

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

Correct statement: If A = {0}, then n(A) = 1

ii) n(∅) = 1 False Correct statement: n(∅) = 0

iii) If T = {a, l, g, h, b, d, h}; then n(T) = 5.

False True

~~Correct statement:~~

~~iv) If B = {};~~

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

Correct statement :

If $B = \{1, 5, 51, 15, 5, 1\}$; then $n(B) = 4$