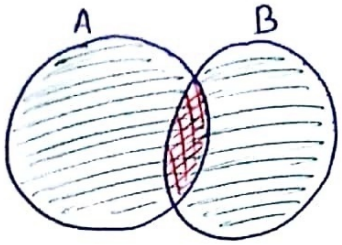
SET THEORY



$$n(A \cup B) = +[n(A) + n(B)] - [n(A \cap B)]$$

$$n(A \cup B \cup C) = +[n(A) + n(B) + n(C)] - [n(A \cap B) - n(B \cap C) + n(A \cap C)] + [n(A \cap B \cap C)]$$

$$n(A \cup B \cup C) \overset{VD}{\wedge} = +\Sigma n(A) - \Sigma n(A \cap B) + \Sigma n(A \cap B \cap C) - n(A \cap B \cap C \cap D)$$

$\Sigma n(A)$ → 4 values

$\Sigma n(A \cap B)$ → $^4C_2 = 6$ values: AB, AC, AD, BC, BD, CD

$\Sigma n(A \cap B \cap C)$ → $^4C_3 = 4$ values: ABC, ACD, ABD, BCD

$n(A \cap B \cap C \cap D)$ → 1 values

C → Cricket

B → Basketball

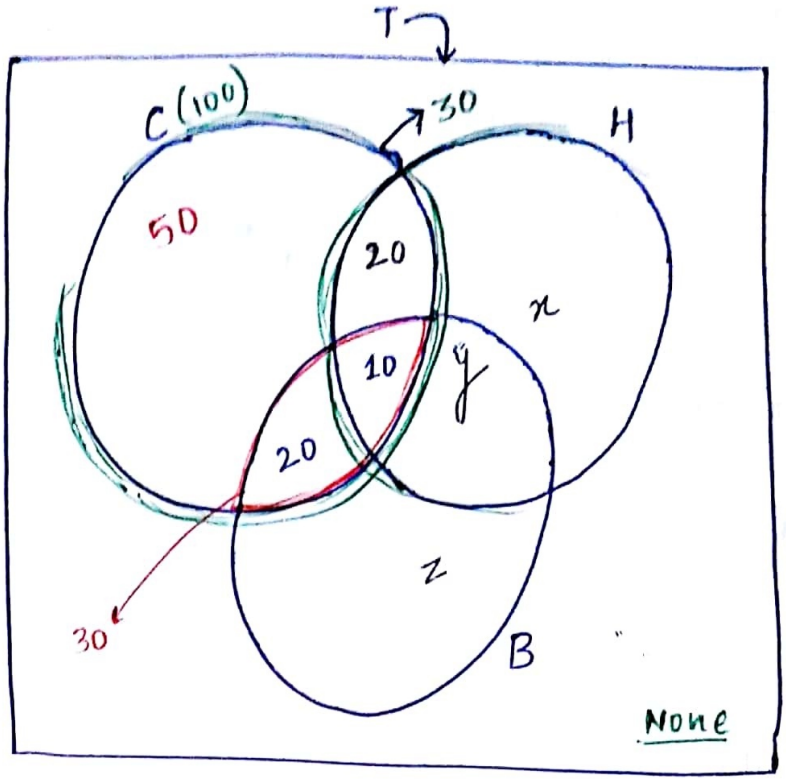
H → Hockey

C & H → outside → 30

C & H only → inside → 20

C & H but not B → C & H only ↓ 20

Discussion → Important



Q How many students are playing any of these 3 games

(or) atleast one of 3 games

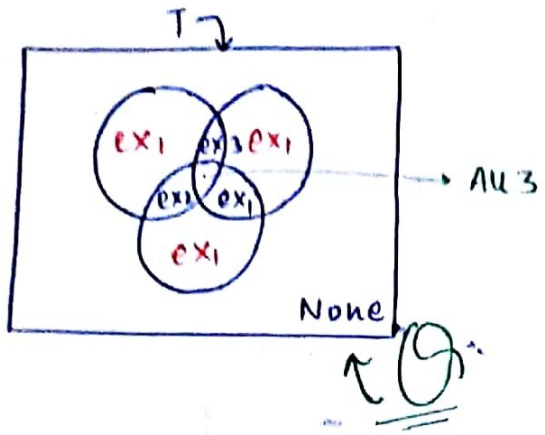
$$n(A \cup B \cup C) = [100 + (x + y + z)]$$

let → x, y, z ← naming

Q none of these 3 games

$T - n(A \cup B \cup C)$

Total



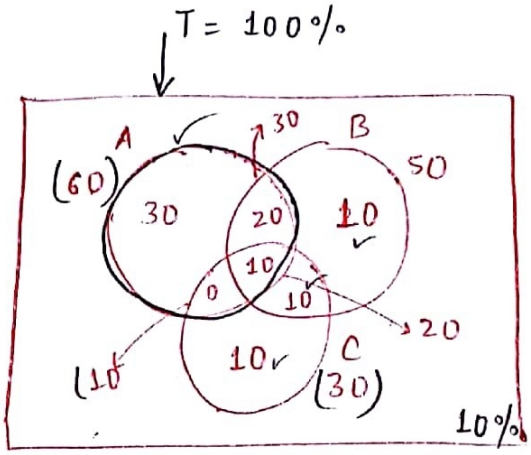
(a) atleast 2 of games = (B) + (B)

(a) atleast 1 of games = (R) + (B) + (B)

= Sum of all the values.

Cricket only → (inside)

Cricket → (बाहर)



1,2,3 Pg 48

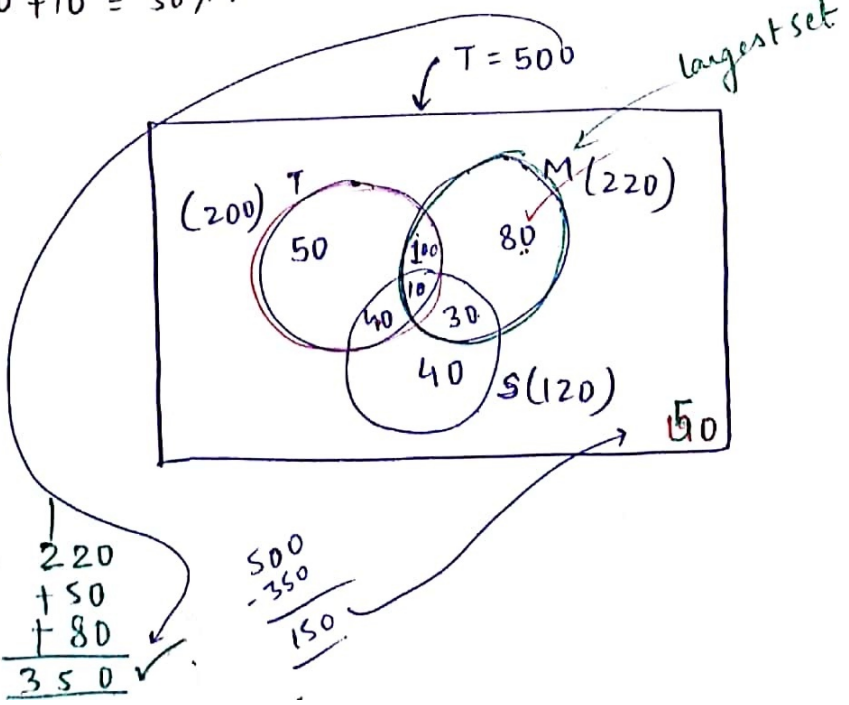
a 20% ✓

b 10% ✓

c 20 + 0 + 10 = 30% ✓

Pg 48 8 to 11

80 ✓
170 ✓
150 ✓
30 ✓

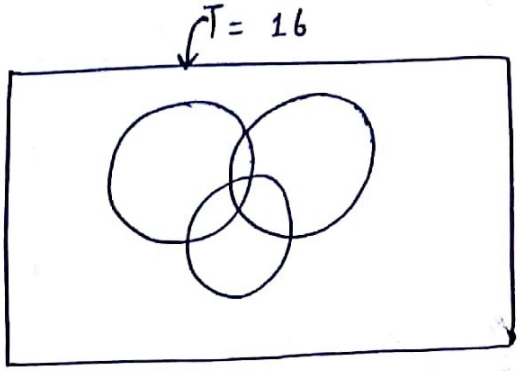


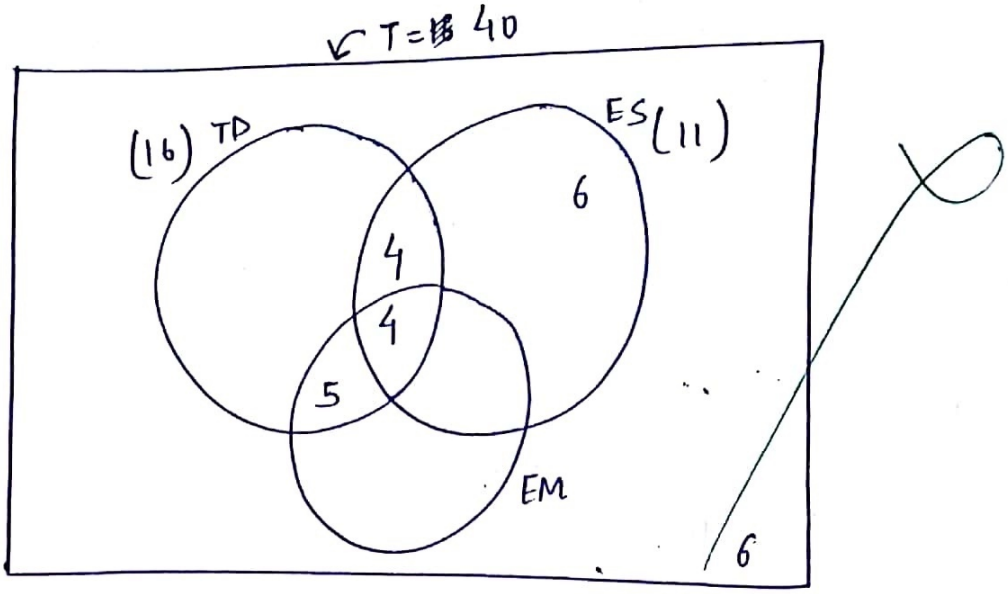
110

200
80
30
40
350

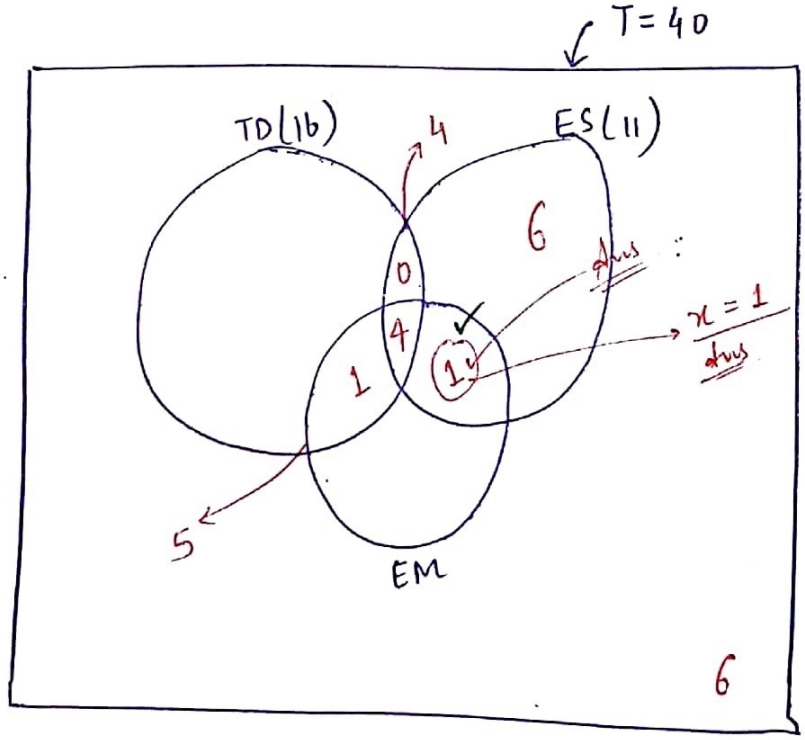
200
220
120
540

Pg 81
Q107

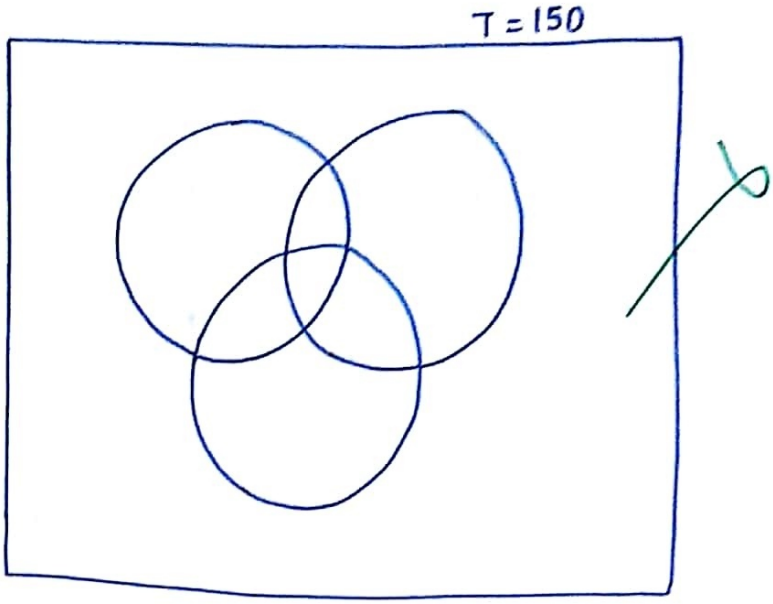


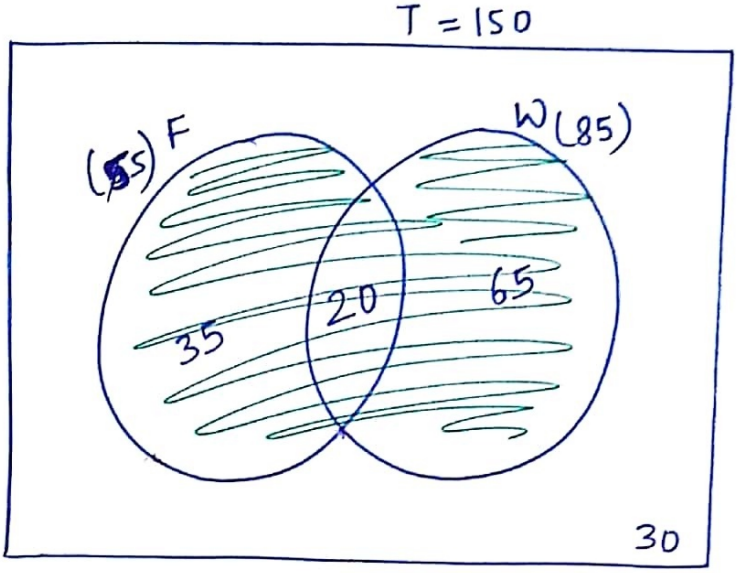


Sol



Q 166





$T - 30 = n(A \cup B) = 120$

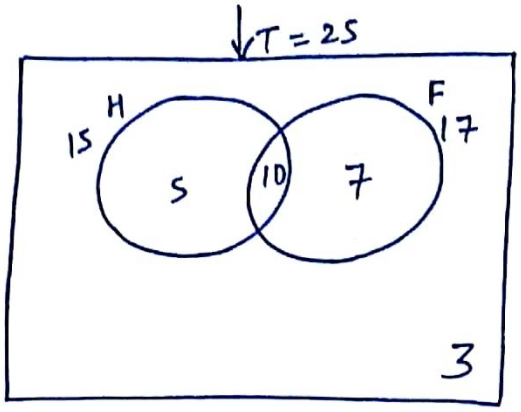
$n(A) + n(B) - n(A \cap B) = 120$

$55 + 85 - \text{〃} = 120$

$n(A \cap B) = 20$

Pg 68

Q1.



Pg ~~79~~

Q 13 to 16 → logical Venn Diagram → eyesight Test.

10/8/16

Q9 $S_2 = 1 \times 2 + 2 \times 3$

$S_2 = 8$

put $n = 2$ opns

$S_2 = 8$ (c)

$\Sigma T_n = \Sigma n(n+1)$

$S_n = (\Sigma n^2 + \Sigma n)$

QT1 $\Rightarrow A = 2^{172} - 2^{171}$

$A = 2^{171}(2-1)$

$A = 2^{171} =$

Q Dino. N lies b/w $9 < N < 1000$

$\boxed{S_N + P_N = N}$

Q $(1\ 2\ 1\ 2\ 1\ 2\ 1\ 2\ 1\ 2 \ldots\ldots\ldots 12)$ (12 written) (150 times) calc. Remainder

99 (300 digited no.)

Q n is a 3 digited natural no. on the base of 10 and converted into base of 7 and base 9, how many such no's are there.

$(a\ b\ c)_7$ $(c\ b\ a)_9$

digits reverse ho jati hai