DAVV MBA PYQ

In a survey of 500 T.V. viewers, 285 watched KBC, 195 watch cricket, 115 watch hockey, 45 watch KBC and hockey, 70 watch KBC and cricket, 50 watch cricket and hockey, 50 do not watch any of three games. How many watch all 3 and how many watch exactly one of three ?

Solution:

K for KBC

H for Hockey

C for Cricket

Formula:

$n(K \cup H \cup C) = n(K)+n(H)+n(C)-n(K \cap H)-n(K \cap C)-n(H \cap C)+n(K \cap H \cap C)$

Given,

$n(K \cup H \cup C) = 500 - 50 = 450$

$n(K) = 285$

$n(H) = 115$

$n(C) = 195$

$n(K \cap H) = 45$

$n(K \cap C) = 70$

$n(H \cap C) = 50$

$n(K \cap H \cap C) = ?$

How many watch all the three games ?

$n(K \cup H \cup C) = n(K)+n(H)+n(C)-n(K \cap H)-n(K \cap C)-n(H \cap C)+n(K \cap H \cap C)$

$450 = 285+115+195-45-70-50+n(K \cap H \cap C)$

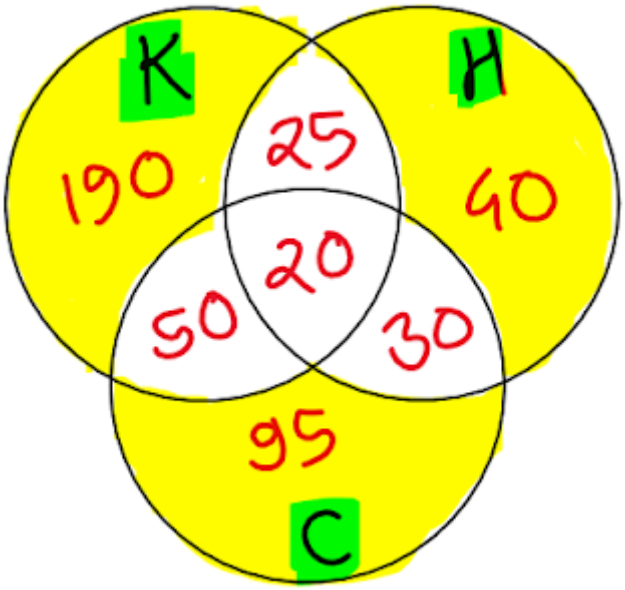
$n(K \cap H \cap C) = 20$

How many watch all 3 ?

Ans. 20

Now, how many watch exactly one ?

In a survey of 500 T.V. viewers, 285 watched KBC, 195 watch cricket, 115 watch hockey, 45 watch KBC and hockey



From the Venn diagram,
Watch exactly KBC = 190
Watch exactly Hockey = 40
Watch exactly Cricket = 95

Practice questions (DAVV MBA PYQs):

Q1. In a city there are 100000 people, 64% of them speak Greek, 55% people speak Latin, 43% people speak French, 21% people speak both Greek and Latin, 31% people speak both Greek and French, and 41% people speak both Latin and French. Determine the number of people speak all the three languages.
Solution: Click Here
Q2. In a survey of 500 T.V. viewers, 285 watched KBC, 195 watch cricket, 115 watch hockey, 45 watch KBC and hockey, 70 watch KBC and cricket, 50 watch cricket and hockey, 50 do not watch any of three games. How many watch all 3 and how many watch exactly one of three ?
Solution: Click Here

Q3. In a managers club, 45 play polo, out of which 30 play Polo only 28 play Snookers. 25 play Tennis of which 11 play Tennis only, 7 play Tennis and Polo, but not Snooker. 5 play Polo and Snooker, but not Tennis

i) How many play all the thre sports?

ii) How many play Snookers only?

iii) How many members are there is the club.

Solution: Click Here

Q4. In a town of 10000 families, it was found that 40% families buy product A, 20% buy product B and 10% buy product C, 5% buy product A and product B, 3% buy product B and product C and 4% buy product A and product C. If 2% families buy product A, B, C all. Then find the number of the families buy product A only.

Solution: Click here