DAY-4

Q1) The average age of P, Q, R & S is 30 years
How old is R?

(a) Sum of ages of P and R is 60 years
(b) S is 10 year younger than R

options - a alone sufficient while b not
- b alone sufficient while a not
- Either a or b alone sufficient
- Both a & b are not sufficient
- Both a & b are necessary to ones

Ans $\frac{P+Q+R+S}{4} = 30$

$P+Q+R+S = 120$

$P+R = 60$
$Q+S = 60$
$R = 60-P$
$S = R-10$

a → Both a & b are not sufficient

Q2) In a cricket team, average age of 11 players is 28 years. What is age of captain

i) The captain is eleven year old then youngest player
ii) Avg age of 10 player, other than captain is 27.3
iii) Leaving aside captain & youngest player,

avg ages of 3 group of 3 players are 25, 28 & 30

(a) Any 2 of 3
(b) All I, II, III
(c) II only or I and III only
(d) II and III only
(e) None of above

for consider II,

avg of 10 pl = $\frac{\text{Sum}}{10}$ = 27.3

Sum = 273

avg of 11 player = $\frac{\text{Sum}}{11}$ = 28

273 + Captain = 28×11

Caper age = 308 - 273

= 35

or consider I & III

youngest = b

Captain = c

$c = b + 11$ ⟹ $b = c - 11$

avg of 3 other pl = 29, 28, 30

Sum = 75, 84, 90

=

$\text{avg} = \frac{75 + 84 + 90 + c + (c-1)}{11} = 28$

= 35

Q3) The captain of cricket team of 11 member is 26 years old & wk is 3 years older. If ages of these 2 are excluded, avg age of remaining players is one year less than average age of whole team. What is avg age of team.

Sol Age of captain: 26

wk = 26 + 3 = 29

avg of 9 pays = avg of whole team - 1

$$\frac{\text{Sum}}{9} = \frac{\text{Sum} + 26 + 29}{11} - 1$$

$$\frac{\text{Sum}}{9} = \frac{\text{Sum} + 55 - 11}{11}$$

$$11\,\text{Sum} = (\text{Sum} + 44)9$$

$$11\,\text{Sum} - 9\,\text{Sum} = 44 \times 9$$

$$\text{Sum} = \frac{44 \times 9}{2} = 22 \times 9 = 198$$

Total Sum: $\frac{198 + 26 + 29}{11} = \frac{253}{11} = 23$ yrs

Q4 The avg monthly income of P and Q is 5050
The avg monthly income of Q, R is 6250
avg monthly income of P & R is 5200.
What is monthly income of P?

Ans $\frac{P+Q}{2} = 5050 \rightarrow P+Q = 10100$

$\frac{Q+R}{2} = 6250 \rightarrow Q+R = 12500$

$\frac{P+R}{2} = 5200 \rightarrow P+R = 10400$

$(P+Q) + (P+R) = 10100 + 10400$

$2P + (Q+R) = 20500$

$2P + 12500 = 20500$

$P = \frac{20500 - 12500}{2} = \frac{8000}{2} = 4000$

Q5 The avg age of husband, wife & their child 3 years ago was 27 & that of wife & child 5 years ago was 20, what is present age of husband?

Ans $\frac{(h-3)+(c-3)+(w-3)}{3} = 27$

$\frac{h+c+w-9}{3} = 81, \quad h+c+w = 90$

$\frac{(w-5)+(c-5)}{2} = 20$

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$w + c - 10 = 90$

$w + c = 50$

$h + c + w = 90$

$h + 50 = 90 \longrightarrow h = 40$