



AVERAGE_CSAT_ANSWER_EXPLANATION

Answer 1: (d)

Average of 50 numbers = 0

Sum of 50 numbers = $0 \times 50 = 0$

If 49 numbers are greater than zero even then the sum of 50 numbers can be zero.

Answer 2: (a)

Sum of present age of Sahil, Ankit and Sohan

$$= 29 \times 3 + 3 \times 4 = 99$$

Sum of present age of all four of them

$$= 36 \times 4 = 144$$

$$\text{Present age of Sonam} = 144 - 99 = 45$$

Answer 3: (c)

$$\text{Age of 6}^{\text{th}} \text{ person} = 62 \times 6 - 62 \times 5 = 62$$

Answer 4: (c)

Let N be the original average expenditure

$$\text{New average expenditure} = \frac{30N + 48}{30 + 6}$$

$$\text{Now, } \frac{30N + 48}{36} = N - 1$$

$$30N + 48 = 36N - 36$$

$$6N = 84$$

$$N = 14$$

$$\text{Original expenditure} = 14 \times 30 = ₹ 420$$

Answer 5: (a)

$$\begin{aligned} \text{Sum of 4 consecutive even numbers} &= 103 \times 4 \\ &= 412 \end{aligned}$$

$$\text{Sum of all 5 numbers} = 105 \times 5 = 525$$

$$\text{Number to be added} = 525 - 412 = 113$$

Answer 6: (b)

Let excluded number be N then

$$\frac{5 \times 30 - N}{5 - 1} = 30 - 5$$

$$150 - N = 100$$

$$N = 50$$

Answer 7: (b)

Let average score of batsman of 14 innings is N then

$$14N + 78 = 15(N + 4)$$

$$N = 78 - 60 = 18$$

$$\text{New average} = 18 + 4 = 22$$

Answer 8: (d)

$$\text{III} : \text{I} : \text{II}$$

$$3 : 1$$

$$\frac{2 : 1}{6 : 3 : 1}$$

$$6 : 3 : 1$$

$$\text{I} : \text{II} : \text{III} = 3 : 1 : 6$$

$$\text{Sum of all three numbers} = 110 \times 3$$

$$3k + k + 6k = 110 \times 3$$

$$k = \frac{110 \times 3}{10} = 33$$

$$\text{Required difference} = (3 - 1) 33 = 66$$

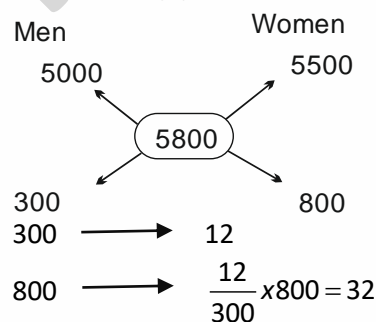
Answer 9: (c)

$$\begin{aligned} \text{Change in sum of 20 numbers} &= (20 - 2) + (30 - 3) + (50 - 5) \\ &= 18 + 27 + 45 = 90 \end{aligned}$$

$$\text{Correct average} = 40 + \frac{90}{20}$$

$$= 40 + 4.5 = 44.5$$

Answer 10: (b)



$$\text{Number of women} = 32$$

Answer 11: (c)

$$\frac{a + b}{2} = 101$$

$$\Rightarrow a + b = 202$$

$$\frac{a + 11}{2} = 50 \Rightarrow a = 50 \times 2 - 11 = 89$$

$$b = 202 - 89 = 113$$

$$a - b = 89 - 113 = -24$$

Answer 12: (a)

As lowest score of class B is more than the maximum score of class A, therefore average of class B will decrease but average of class A may decrease or increasing depending on the score of the transferred students.

**Answer 13: (b)**

$$\begin{aligned}\text{Corrected mean} &= 40 + \frac{-83+53}{100} \\ &= 40 + \left(\frac{-30}{100}\right) = 39.7\end{aligned}$$

Answer 14: (d)

$$\begin{aligned}C_1 + C_2 + M &= 50 \times 3 = 150 \\ C_1 + C_2 + F &= 52 \times 3 = 156 \\ C_1 + C_2 &= 156 - 60 = 96 \\ M &= 150 - 96 = 54\text{kg}\end{aligned}$$

Answer 15: (c)

$$\text{Weight of 5}^{\text{th}} \text{ person} = 45 \times 5 + 55 \times 5 - 50 \times 9 = 50$$

Answer 16: (c)

$$\begin{aligned}\text{Rainfall on last two days} &= 0.5 \times 6 - 0.4 \times 4 \\ &= 3 - 1.6 = 1.4 \text{ inch}\end{aligned}$$

$$\begin{aligned}\text{Rainfall of fifth day} &= \frac{4}{4+3} \times 1.4 = 0.8 \text{ inch} \\ &= 0.5 \times 6 - 0.4 \times 4 = 3 - 1.6 = 1.4 \text{ inch} \\ &= \frac{4}{4+3} \times 1.4 = 0.8 \text{ inch}\end{aligned}$$

Answer 17: (a)

Let average salary of company excluding manager is

$$\begin{aligned}x \\ \text{ATQ,} \\ 39x + 80000 &= 40(x + 1000) \\ x &= 40000 \\ \text{Final average salary} &= \frac{40000 + 1000}{2} \\ &= 41,000\end{aligned}$$

Answer 18: (c)

$$\begin{aligned}2, 4, \dots, 40 \\ \text{Required average} &= \frac{N+1}{2} = \frac{20+1}{2} = 21\end{aligned}$$

Answer 19: (b)

$$\begin{aligned}\text{Now, number of months} &= 12 - 1 + 3 = 14 \\ \text{Total sale in these 14 months} &= 36000 \times 12 - 40000 \\ &\quad + 100000 \\ &= 432000 - 40000 + 100000 \\ &= 492000 \\ \text{Required average} \\ &= \frac{492000}{14} \\ &= 35142.85\end{aligned}$$

Answer 20: (b)

$$\begin{aligned}a + b + c &= 32 \times 3 = 96 \\ a - 32 &= 32 - b \\ \Rightarrow a + b &= 64 \\ 64 + c &= 96 \\ \Rightarrow c &= 32\end{aligned}$$

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