

Q No 3

(a) The Average weight of A, B, C is 45kg?
If the average weight of A and B is 40kg
and that of B and C be 43kg, then weight
of B?

Sol. Weight

$$A + B + C = 45 \times 3 = 135 \quad \text{--- (i)}$$
$$A + B = 40 \times 2 = 80 \quad \text{--- (ii)}$$
$$B + C = 43 \times 2 = 86 \quad \text{--- (iii)}$$

Now by adding

$$\begin{array}{r} + \\ \hline A + 2B + C = 166 \end{array}$$

Subtracting from eq (i)

$$2B = 166 - 135 = 31$$

$$\boxed{B = 31} \text{ Ans}$$

(b) — ? Missing series

(i) 2, 3, 6, 4, 5, 20, — 3, 18

Sol: 2, 3, 6, 4, 5, 20, 5, 25, 3, 18

(ii) 1, 3, 9, 15, 25, — 49

Sol: ~~1, 3, 9, 15, 25, 36, 49~~
1, 3, 9, 15, 25, 36, 49 Ans

(iii) 2, 7, 10, 22, 18, 37, 26

Sol: 2, 7, 10, 22, 18, 37, 26

(iv) 34, 7, 37, 14, 40, 28, 43 7

Sol.

37, 7, 37, 14, 40, 28, 43, 42 Ans

(v) 5, 7, 11, _____ 17, 19

Sol

8, 7, 11, 17, 17, 19 Ans

Q. No 3 (B) Two numbers are in ratio 3:5, if 9 is subtracted from each, the new numbers are in

Sol: As per situation

~~3x = 5x~~ $3x = 5x \rightarrow$ (i)

if 9 is subtracted from each

$$\frac{3x-9}{5x-9} =$$

Ratio is equal to 12:23 or 12/23

$$\frac{3x-9}{5x-9} = \frac{12}{23}$$

Now By cross multiplication $23(3x-9) = 12(5x-9)$

$$69x - 207 = 60x - 108$$

Now $69x - 60x - 207 + 108$

$$9x = 99$$

$$\frac{9x}{9} = \frac{99}{9} = 11$$

Now putting $x = 11$ in eq (i)

$$3x = 5x$$

$$3 \times 11 = 5 \times 11 \Rightarrow \boxed{33 = 55}$$

Smaller number is 33 Ans

Q.1 (B) ~~Intro~~ Introducing a boy
girl said "He is son of daughter
of father of my uncle".

Solution

uncle's father = Grand father
daughter of Grandfather = Aunt
So, Relation becomes = Cousin
Ans

Q NO 1 ——— ? (C)

Ans: Q: (Two dice are thrown simultaneously
what is the probability of getting two
numbers whose product is even)

Sol:

$$P(\text{Even Product}) = 1 - P(\text{odd product})$$

So $P(\text{Even}) = 1 - \frac{1}{4} = \frac{3}{4}$ Ans
with even products

Q NO 1: part (b)

A library has an average of 510 visitors
on Sundays and 240 on other days, so the
average is?

Ans

Sundays in Month: 1, 8, 15, 22, 29

Now

$$510 \times 5 = \underline{2550} \text{ Ans}$$