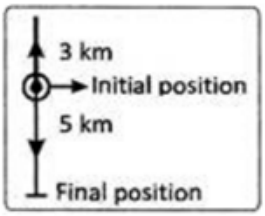
Solution of the day/ August 21, 2019

6th Class

- **Mathematics:** Ans : (D)



- **Physics:** Ans: (A)
- **Chemistry:** Ans: (A)
- **Biology:** Ans: (D)

7th Class

- **Mathematics :** Ans : (B)

Let age of Ashima = x years, Sunita = 2x

Now Ashima = x – 6

Sunita = 2x + 4

(x – 6) = 2x + 4

4x – 24 = 2x + 4

2x = 28 ⇒ x = 14

Ashima = 14, Sunita = 28

∴ 2 years ago :Ashima = 12, Sunita = 26

- **Physics:** Ans: (C)
- **Chemistry:** Ans: (C)
- **Biology:** Ans: (D)

8th class

- **Mathematics:** Ans: (C)

$$\frac{A}{C}=\frac{A}{B}\times\frac{B}{C}=\frac{3}{2}\times\frac{5}{4}=\frac{15}{8}\Rightarrow A:C=15:8$$

- **Physics:** Ans : (B)

- **Chemistry:** Ans: (B)

Strength = Normality ´ Eq. mass $=A)5\times17$ (eq. mass of H_2O_2) $=25.5gL^{-1}$

- **Biology:** Ans: (A)

9th Class

- **Mathematics :** Ans : (B)

Produce AB to meet EC at F.

Now, AF || CD CF is the transversal.

$\because$ $\angle BFC = \angle FCD = 120°$ [alternate angles]

Now, $\angle BFC + \angle EFB = 180°$ [linear pair]

$\Rightarrow 120° + \angle EFB = 180° \Rightarrow \angle EFB = (180° - 120°) = 60°$.

Also, $\angle ABE + \angle EBF = 180°$ [Linear pair]

$\Rightarrow 110° + \angle EBF = 180° \Rightarrow \angle EBF = (180° - 110°) = 70°$.

Now, $\angle FEB + \angle EBF + \angle EFB = 180°$ [angles of a triangle]

$\Rightarrow x + 70 + 60 = 180 \Rightarrow x = (180 - 130) = 50$.Hence, $x = 50$.

- **Physics:** Ans : (B)

- **Chemistry:** Ans: (A)

- **Biology:** Ans: (C)

10th class

- **Mathematics:** Ans : (A)

Let those friends were having Rs x and y with them.

Using the information given in the question, we obtain

$x + 100 = 2(y - 100)$

$x + 100 = 2y - 200$

$x - 2y = -300$ ———————— (i)

and, $6(x - 10) = (y + 10)$

$6x - 60 = y + 10$

$6x - y = 70$ ———————— (ii)

Multiplying equation (ii) by 2, we obtain

$12x - 2y = 140$———————— (iii)

Subtracting equation (i) from equation (iii), we obtain

$11x = 140 + 300$

$x = 40$

Using this in equation (i), we obtain

$40 - 2y = -300$

$2y = 340$

$y = 170$

Therefore, those friends had Rs 40 and Rs 170 with them respectively.

- **Physics:** Ans: (C)
- **Chemistry:** Ans: (C)
- **Biology:** Ans: (D)
- **Reasoning :** Ans: (A)

Some students can be tennis fans or cricket players. Even some tennis fans can be cricket players.