

(Contd. from p. 34)
 Class - VIII (Maths)
 Book - K.C. Mathg.
 Chapter - Average.
 Syllabus: - S.N. 11 to 13
 and S.N. 35 to 55.

S. 11-9 Required Average = $\frac{6\frac{1}{2} \text{ hrs} + 3\frac{1}{3} \text{ hrs} + 9 \text{ hrs} + 4\frac{1}{6} \text{ hrs}}{4}$
 $= \frac{23 \text{ hrs}}{4} = 5\frac{3}{4} \text{ hrs.}$

S. 11-12 Required Average = $\frac{1+3+5+7+9+11+13+15+17+19+21}{11}$
 $= \frac{121}{11}$

OR:
 $S = \frac{n}{2} \{2a + (n-1)d\}$ [where S = Sum
 a = 1st term, n = no of terms
 d = common difference.]

\therefore Average = $\frac{11}{2} \left\{ \frac{2 + (11-1)2}{11} \right\} = \frac{2+20}{2} = 11$.
 [Here $a=1$, $n=11$, $d=2$]

S. 11-13
 $S = \frac{30}{2} \left\{ \frac{2 + (30-1)1}{2} \right\} = \frac{30 \times 31}{2}$
 \therefore Average = $\frac{30 \times 31}{2 \times 30} = 15\frac{1}{2}$

S. 11-25 total no of soldiers killed in a battle for 13 days
 $= 13 \times 9000 = 117000$
 now first 6 days, no of soldiers killed
 $= 6 \times 8000 = 48000$
 and last 6 days, no of soldiers killed
 $= 6 \times 11000 = 66000$
 \therefore The no killed on the 7th day = $117000 - (48000 + 66000)$
 $= 117000 - 114000$
 $= 3000$.

CI-VIII (Maths)
Average.

SN-37

Total income of 7 men, 10 women and 1 boy
 $= \text{RS } 18 \times 12 = \text{RS } 216$.
If the average daily income of the men is RS 17 and
that of the women is RS 9,

$$\therefore \text{Total income of 7 men and 10 women} \\ = 7 \times 17 + 10 \times 9 = 119 + 90 = 209,$$

$$\therefore \text{The boy's income per day} = \text{RS } 216 - \text{RS } 209 \\ = \text{RS } 7.$$

SN-43 According to the condition,

$$C's \text{ age} = 5 \text{ yrs } 2 \text{ months}$$

$$B's \text{ age} = 5 \text{ yrs } 2 \text{ months} + 3 \text{ yrs } 4 \text{ months} = 8 \text{ yrs } 6 \text{ months}$$

$$A's \text{ age} = 8 \text{ yrs } 6 \text{ months} + 4 \text{ yrs } 7 \text{ months} = 13 \text{ yrs } 1 \text{ month}$$

$$\therefore \text{Their average age} = \frac{26 \text{ yrs } 9 \text{ months}}{3} \\ = 8 \text{ yrs } 11 \text{ months}.$$

SN-46 Let the price of a goat = RS x .

$$\therefore \text{the price of a sheep} = \text{RS } 2x.$$

$$\therefore \text{A.T.P. } \frac{7x + 7 \times 2x}{14} = 6$$

$$\text{or } 21x = 84 \quad \text{or } x = 4,$$

$$\therefore \text{The price of goat} = \text{RS } 4 \text{ and the price of a sheep} \\ = \text{RS } 8.$$

SN-52 Let the total no of workers be = x .

$$\therefore \text{A.T.P. } \frac{12 \times 400 + (x-12) 56}{x} = 60$$

$$\text{or } 4800 + 56(x-12) = 60x$$

$$\text{or } 12 \times 344 = 4x \\ \text{or } x = 3 \times 344 = 1032.$$

$$\therefore \text{Total no of workers} = 1032.$$

CI-VIII (Maths)
Average.

454.

Tendulkar scored an average of 34 runs in 12 innings and he will have to play one innings more.

$$\therefore \text{total runs in 12 innings} = 12 \times 34 = 408.$$

$$\text{Again total " " 13 innings} = 13 \times 40 = 520.$$

$$\therefore \text{If he is out, he will score in that innings} = 520 - 408 = 112.$$

$$\text{And if he is not out in that innings he will score} \\ = 40 \times 12 - 408 = 480 - 408 = 72.$$

55

Yuvraj Singh scored 85 runs in the 17th innings and thereby increased the average run of the previous 16 innings by 3.

$$\therefore \text{The average run in the 17th innings} \\ = 85 - (16 \times 3) = 85 - 48 = 37.$$