

Assignment-IV

Q1
$$\frac{45+42+119+84+x}{5} = 50$$

$x = -40 \text{ (c)}$

Q2 Speed \times Time = length of train

$$60 \times 1000 \times 6 = 100 \text{ m (a)}$$
 ~~60×60~~

Q3
$$\begin{aligned} P+Q &= 5050 \\ Q+R &= 6250 \end{aligned} \left. \begin{array}{l} \\ \end{array} \right\} \text{subtract}$$

$$\begin{aligned} R-P &= 1200 \\ P+R &= 5200 \end{aligned} \left. \begin{array}{l} \\ \end{array} \right\} \text{Add}$$

$2R = 6400$

$R = 3200$

$R-P = 1200$

$3200 - P = 1200$

$P = 2000 \text{ (d)}$

Q5 Average of all the boys

$$= \frac{16 \times 50.25 + 8 \times 45.15}{16 + 8}$$

$$= 48.55 \text{ kg (a)}$$

Q11 Buy = 4700

Repair = 800

Total Buy = 5500

Sell = 5800

Profit = 5800 - 5500 = 300

Gain % = $\frac{300}{5500} \times 100 = \boxed{5\frac{5}{11}\%}$ (b)

Q13 $\frac{W+T+7}{3} = 40$

$W+T+7 = 120 \rightarrow W+8 = 120$

$\frac{T+7+S}{3} = 41$

$W = 39$ (a)

$T+7+S = 123$

$S = 42 \Rightarrow T+7 = 81$

Q14 (First five multiples of a) avg

$$= \frac{9+18+27+36+45}{5} = 27(b)$$

Q15 80 kg \rightarrow 13.50/kg

$$\text{Total} = 80 \times 13.50 = 1080 \text{ £}$$

120 kg \rightarrow 16/kg

$$\text{Total} = 120 \times 16 = 1920 \text{ £}$$

$$\text{Total cost} = 1920 + 1080 = 3000 \text{ £}$$

$$\text{Needed gain} = 16\%$$

$$= \frac{16 \times 3000}{100} = 480$$

$$\text{Selling Price} = 3000 + 480 = 3480$$

$$\text{Total Kg} = 120 + 80 = 200 \text{ Kg}$$

$$\text{Cost/kg with profit} = \frac{3480}{200} = 17.40 \text{ £/Kg}$$

Q17. Repeated Question \rightarrow Q4

Q18. $\frac{5}{x} \cdot \frac{10}{x} \cdot \frac{15}{x}$

Average Speed = $\frac{\text{Total Distance}}{\text{Total Time}}$

= $\frac{3x}{\frac{5}{x} + \frac{10}{x} + \frac{15}{x}}$ = $\frac{3x}{\frac{6x+3x+2x}{30}}$

= $\frac{3x \times 30}{11x} = 7 \frac{18}{11} \text{ km/hr}$

Q16

	A	B	
	100 ₹	100 ₹	(Initially)
Compare	A	B	
	110 ₹	-10 ₹	(After A sells to B.)
	A	B	
	11	89	(After B sells to A.)

A makes a profit of 11%
(b)