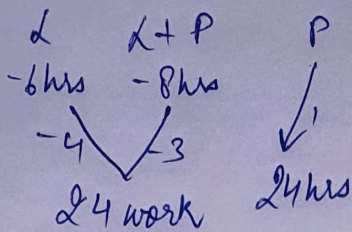


# Assignment - 4

Q1



So, 4 l/min

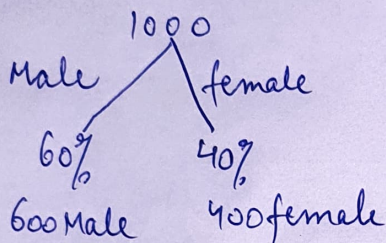
24 hr  $\times$  60  $\times$  4

$$\boxed{5760 \text{ litre}}$$

Ans

Q2

Let total be 1000



$$\begin{aligned} \text{Literate Male} &= 20\% \text{ of } 600 \\ &= 120 \text{ Males} \end{aligned}$$

$$\begin{aligned} 25\% \text{ of } 1000 &= 250 \text{ literate} \end{aligned}$$

$$\begin{aligned} \text{Literate female} &= 250 - 120 \\ &= 130 \text{ females} \end{aligned}$$

Ans

Q3

Let fail % be  $x\%$  in both

$$P(E) + P(M) - P(E+M) = 100\% - x\%$$

$$80\% + 85\% - 73\% = 100\% - x\%$$

$$92\% = 100\% - x\%$$

$$x\% = 100\% - 92\%$$

$$x\% = 8\%$$

$8\%$  candidates failed in both English and Mathematics

Ans

Q4

Income : Expenditure : Savings

$$13500 : 9000 : 4500$$

$$135 : 90 : 45$$

$$\begin{aligned} 3 & : 2 : 1 \\ \downarrow & \quad \downarrow \\ +14\% & \quad +7\% \end{aligned}$$

$$\frac{3 \times 14 - 2 \times 7}{1} = \frac{42 - 14}{1}$$

$$= \boxed{28\% \text{ increase in savings}}$$

Ans

Q5

$$\begin{aligned} \text{Rate}_1 &= 49 \text{ pumps} \times 10 \text{ hrs/day} \\ &= 490 \end{aligned}$$

$$\begin{aligned} \text{Rate}_2 &= 70 \text{ pumps} \times 7 \text{ hrs/day} \\ &= 490 \end{aligned}$$

Both have same Rate  
So,

$$\frac{10 \text{ days}}{49} = \frac{x \text{ days}}{70}$$

$$10 \times 70 = 49 \times x$$

$$x = \frac{700}{49}$$

$$\boxed{x = 14.29 \text{ days}}$$

Ans