

28/05

work and
wages.

more work \rightarrow more money.

$$\text{income} \propto \frac{1}{\text{days}}$$

A \rightarrow 2 days (\uparrow money)

B \rightarrow 3 days (\downarrow money)

$$\text{Ratio days } A:B = 2:3$$

$$\text{Ratio income } B:A:B = 3:2$$

3) share of B in

$$\text{Income} = \frac{2}{3+2} (\text{T.I}) \rightarrow \text{Total income}$$

$$= 2/5 (\text{T.I})$$

$$A = \frac{3}{3+2} (\text{T.I}) \Rightarrow 3/5 (\text{T.I})$$

4) more work \uparrow more money \uparrow (Time with work $n = 1/n$)

A \rightarrow 2 days \rightarrow in 1 day A does $1/2$ work in 1 day

B \rightarrow 3 days \rightarrow in 1 day B does $1/3$ work in 1 day.

questions:

i) Kamesh \rightarrow 5 days | Swarsh \rightarrow 7 days,

Total amount is \rightarrow 4800.

share of swarsh is equal to?

Days: 5:7 Income R:S = 5:7

share of swarsh $\frac{5}{7+5} \times (\text{T.I})$

$$= \frac{5}{12} \times 4800$$

$$= 200.$$

Kamesh = 4800 - 200.

$$= 4600.$$

07

, 22:10

d)

Ramesh \rightarrow 15 days.

Vijay and Ramesh together in 10 days.

Total amount = 1155.

Share of Ramesh and Vijay.

Ramesh Ramesh \rightarrow 15 days $\rightarrow \frac{1}{15}$ in one day.

Vijay $\rightarrow ? \rightarrow \frac{1}{V}$ in one day.

Ramesh + Vijay \rightarrow 10 days $\rightarrow \frac{1}{10}$ in one day.

$$\frac{1}{V} + \frac{1}{R} = \frac{1}{10}$$

$$\frac{1}{15} + \frac{1}{R} = \frac{1}{10} \Rightarrow \frac{1}{R} = \frac{1}{10} - \frac{1}{15} = \frac{1}{30}$$

Ramesh 30 days.

Ramesh 15 days

Vijay = 30 days

$$\frac{1}{R} = \frac{3-2}{30} \Rightarrow \frac{1}{R} = \frac{1}{30}$$

$R : V = 15 : 30 \rightarrow$ days

$R : V = 30 : 15 \rightarrow$ Income

$$\text{Income} = \frac{2}{2+1} (7.2)$$

$$\text{Ramesh} = \frac{2}{3} \times 7.2 = 4.8$$

$$\text{Vijay} = 1155 - 770 = 385$$

(3)

44 women for 36 days complete $\frac{1}{2}$. How many men needed for 47 days to complete $\frac{1}{16}$? If the daily wages of a man being 5 times those of a woman?

$$44 \text{ cu for } 56 \text{ days} = 295680 \text{ cu.}$$

Value = Rs 105/-

$$44 \text{ cu for 1 day} = \frac{29568}{56} \text{ cu/day} = 528 \text{ cu/day}$$

$$1 \text{ cu for 1 day} = \frac{528}{12} \text{ cu/day}$$

Cost of 1 cu/day = 12 rupees per cu/day

$$12 \times 5 = 60 \text{ daily wages of men.}$$

$$1 \text{ man 1 day} = 60 \text{ rs.}$$

$$M \text{ man} = 60 \text{ rs.}$$

$$M \text{ man for } 47 \text{ days} = 60 \times 47 = 16920 \text{ rs.}$$

$$M = \frac{16920}{60} = 282 \text{ men.}$$

- 7) P, Q and R take a job for ₹ 640. P and Q together finish $\frac{2}{5}$ th of work rest is done by R. share of R?

$$P, Q, R = 1.$$

$\frac{2}{5}$ th of 640.

$$\frac{2}{5} \times 640 = 256 \text{ rupees}$$

$$R = \frac{3}{5} \times 640 = \frac{3}{5} \times 640 = 384 \text{ rupees}$$

Share of R = $\frac{3}{5} \times 640 = 384 \text{ rupees}$

- 8) P \rightarrow 30 days, Q \rightarrow 45 days. P+Q = 15 days and rest is done by R in 6 days.

$$RS = 15000.$$

$$P \rightarrow 30 \text{ days} \rightarrow \frac{1}{30}.$$

? both can do in 15 days.

$$= \frac{1}{18} \times 15 = \frac{5}{6} \text{ remaining work}$$

$$= \frac{5}{6} \times 15 = \frac{25}{6} \text{ remaining work}$$

$$= \frac{5}{6} \times 6 = 5 \text{ days}$$

$$= \frac{5}{6} \text{ days}$$

$$P+Q = \frac{1}{30} + \frac{1}{45} = \frac{1}{18}.$$

$$= \frac{3+2}{90} = \frac{1}{18}.$$

Total = 15000.

$$\frac{1}{6} \text{ of } 15000 = \frac{1}{6} \times 15000 \\ = 2500.$$

7) man and boy get 1800 for 3 days. The man's efficiency in the work was 5 times of the boy's daily wages of the boy.

$$M+B = 1800 \text{ in 3 days}$$

$$M+B = 600 \text{ in 1 day}$$

$$\text{Income: } 5:1 \quad \text{Boy: } 1 (600)$$

man

boy

$$= 100, \quad 1 = 12000$$

8) parthiv was appointed for 100 days job. The candidate will be paid 24/- for every working day. he will also be fined 120/- for everyday he is absent. finally candidate got 4200. how many days he was absent?

$$24 \times 100 = 2400(x), \quad k = \text{absent} \\ (100-k) = \text{present} \times 24 : 9$$

$$(100-k)24 + 12k120 = 4200.$$

$$2400 - 24k - 12k = 4200 \\ 6k = 1800 \\ k = 300$$

$$k = 55.$$

$$\frac{1}{24} \times \frac{1}{12} = \frac{1}{288}$$

$$\frac{56}{288} = \frac{7}{36}$$

9) 6men, 4women and 8boys = 26. Pt wages of 6men
is equal to 8women and wages of 4woman is equal to
6boys. Total wages of 8men, 6woman, 4boys?

$$6m + 4w + 8b = 26.$$

$$(6m = 8w) \Rightarrow m = \frac{8}{6}w \Rightarrow \frac{8}{6} \times 1.5 = 2$$

$$(4w = 6b) \quad b = \frac{4w}{6} \Rightarrow \frac{4}{6} \times 1.5 = 1$$

$$8w + 4w + 8\left(\frac{4w}{6}\right) = 26.$$

$$24w + 12w + 16w = 26 \times 3,$$

$$52w = 78$$

$$w = \frac{78}{52}$$

$$w = 1.5.$$

$$8m + 6w + 4b = 16 + 9 + 4 \\ = 29$$

10) P, Q, R = 10800 work in 18 days. P, R = 3760 in 10 days.
Q, R = 6080 in 20 days. Amount received by R in one
day.

$$P, Q, R = 10800 \text{ in 18 days.}$$

$$\text{for 1 day} = \frac{10800}{18} = 600.$$

$$P, R = 3760 \text{ in 10 days.}$$

$$= \frac{3760}{10} = 376.$$

1P

$$Q, R = 6080 \text{ in 20 days.}$$

$$OO Neo7 = \frac{6080}{20} = 304.$$

$$P + Q + R = 600.$$

$$P + 30y = 600.$$

$$P = 296.$$

$$296 + R = 376.$$

$$R = 376 - 296 \leftarrow W \frac{8}{12} = M \leftarrow (WB = MB)$$

$$= 80.$$

11) The amount of money with which A's wage can be paid for 18 days, when A is working alone, B in 12 days (working alone). If A+B working together then the same would be enough for wages of both for how many days?

M - Money.

A \rightarrow 18 days. B \rightarrow 12 days.

$$1\text{ day} \rightarrow \frac{1M}{18} \quad 1\text{ day} = \frac{1M}{12},$$

$$A+B = \frac{M}{18} + \frac{M}{12} = \frac{5M}{36}$$

$$1\text{ day} \rightarrow \frac{5M}{36}$$

$$? \rightarrow M.$$

$$\frac{M}{\frac{5M}{36}} = ?$$

$$M = 36/5 \text{ days.}$$

$$600 \times \frac{1}{36/5} = 100 \times 5 = 500$$

$$600 \times \frac{5}{36} = 25 \times 5 = 125$$

$$3dPE = 100RS =$$

$$125 \times 60 = 7500 = 100RS$$

12) 8 workers work 6 hours/day. Total £630 for a week.
 How much should Johnny pay 18 workers working 9 hours per day for a week?

$$8w \text{ 6hrs/day} \Rightarrow 6 \times 7 \\ = 42 \text{ hours.}$$

$$8w \text{ 42hrs} = 630.$$

$$8w \text{ 1hr} = \frac{630}{42} = 15 \text{ p.s.}$$

$$1w \text{ 1hr} = \left(\frac{15}{8}\right) \text{ p.s.}$$

$$18w \text{ 1hr} = 18 \times \frac{15}{8} \\ = (135/4) \text{ p.s.}$$

$$45 \text{ p.s.} \times 7 = 285.$$

$$18w \text{ 2hrs} = \frac{135}{4} \times 2 \times 7 \\ = 2945$$

13) Ram and Shyam a task for £800. Ram alone can do it in 6 days, Shyam alone in 8 days. With help of Gita they both complete it in 3 days. How much Gita will get?

$$R, S, R \rightarrow 3 \text{ days} \quad R \rightarrow 6 \text{ days}$$

$$1 \text{ day} = 1/3, \quad 1 \text{ day} = 1/6.$$

$$S \rightarrow 8 \text{ days} \\ 1 \text{ day} = 1/8.$$

$$\frac{1}{6} + \frac{1}{8} + \frac{1}{R} = \frac{1}{3}.$$

$$\frac{1}{R} = \frac{1}{3} - \frac{1}{6} - \frac{1}{8}.$$

$$= \frac{1}{24}.$$

Now a road & motor. Next work to

$$R:S:R_J^o = \frac{1}{16}: \frac{1}{8}: \frac{1}{24}$$

4:3:1.

$$R_J^o = \frac{1}{4+3+1} (1800)$$

$$= \frac{1}{8} \times 800$$

$$R_J^o = 200.$$

Exd < peak load WB
work =

$$\text{load} = 200 \mu \text{WB}$$

$$\text{load} = \frac{200}{5} \mu \text{WB}$$

$$20 \left(\frac{21}{8} \right) = 111 \text{ WB}$$

$$\frac{21}{8} \times 18 = 48.75 \text{ WB}$$

$$\text{load} =$$

$$\text{load} = \frac{200}{5} \text{ WB}$$

$$\text{load} =$$

total work done is more than a single load and more than a single load. Work is more work. Resultant total work done is the sum of individual loads plus the

total new load

$$\text{load} = 3$$

$$111 + 200$$

$$111 + 111$$

$$\text{load} = 211$$

$$111 + 111$$