Work & Wages

Tips

1) More work more money

↑W ∝ ↑Money

2) Less days more money

A - 2 Days

B - 3 Days

$\text{Income} \propto \frac{1}{\text{Days}}$

Ratio of Days = 2:3 Inverted

Ratio of Income = 3:2

3) Share of money

$B = \frac{2}{3+2} \times [\text{Total}] \quad A = \frac{3}{5} \times \text{Total}$

4) ↑W ↑money

A - 2D, B = 3D } use inverted

$A = \frac{1}{2} \quad B = \frac{1}{3}$

$A:B = \frac{1}{2} : \frac{1}{3} = 3:2$

5) Invert

If A days 1/8 how days he took = 8 days

1.) Ramesh can do a work in 5 days. Suresh can do a work in 7 days. Total amount is 7480 if both work together what will be share of money

ratio of days $\propto \frac{1}{\text{Income}}$

7:5 → ① income

5:7 → ② days

So Ramesh

~~7 × 480 = 2800~~ $\frac{7}{12} \times 480 = 280$

Suresh

480 − 280 = 200

2.) Ramesh can do a ~~Ramesh~~ work in 15 days. Vijay and Ramesh together do the same work in 10 days. They received Rs 1155 for that work. what is share of Ramesh & Vijay

R = 15 days = $\frac{1}{15}$ V = $\frac{1}{v}$ Total = $\frac{1}{10}$

$\frac{1}{v} = \frac{1}{10} - \frac{1}{15}$

$\frac{1}{v} = \frac{1}{30}$

V = 30 days

Then

Ratio of 1 day $\frac{1}{15} : \frac{1}{30}$

Income 2:1

R = $\frac{2}{3} \times 1155 = 770$

V = 1155 − 770 = 385

ratio day 1 15:30

ratio of inc 30:15

3.) Wages of 44 women for 56 days comes to Rs 29560. How many men are needed for 47 days to 16920, if daily wages of a man being 5 times of a woman

44w for 56 = 29560

44w for 1 day = $\frac{29560}{56}$

1w for 1 day = $\frac{29560}{56 \times 44}$ = Rs. 12

also men get 5 times

12 x 5 = 60 ₹

1 man 1 day = 60

1 man 47 = 60 x 47

16920 = 60M x 47

M = 6

4.) P, Q and R take a job for ₹640, P and Q finish work together = 2/5. Rest is done by R. What is the share of R

P + Q + R = 1 he gets rest

$\frac{2}{5} + R = 1$ $\frac{3}{5} \times 640 = 384$ ₹

$R = \frac{3}{5}$

6) P can do a job in 30 days, while Q alone in 45 days. They work together for 15 days and rest is done by P in 6 days. They get 15,000 for whole job. what will be P's share

P -> 30 = $\frac{1}{30}$ Q = 45 = $\frac{1}{45}$

$\frac{1}{30} + \frac{1}{45} = \frac{1}{18}$

They did it for 15 days

$\frac{15}{18} = \frac{5}{6}$

work done by P = $\frac{1}{6}$

So Share = $\frac{1}{6} \times 15000 = 2500$

7) A man and a boy received ₹1800 as wages for 3days for job they did together. The man's efficiency in work was 5 times that of a boy. what is the daily wage of the boy

M+B = 1800 = 3day

1day M+B = 600

5:1 is ratio of work

$\frac{1}{6} \times 600 = 100$

8) Parthiv was appointed for 100 days job. The condition was that he will be paid Rs 24 every working days. he will also be fined Rs 12 for every day he is absent. At end he got Rs 420. for how many days he was absent

100 - K - he was absent
fine - 24K

$(100-K)24 - 12K = 420$

$K = 55$

9) Total wages of 6 Men, 4 women & 8 boys is Rs. 26. if the wages of 6 men is equal to that 8 women and wages of 4 women is equal to that of 6 boys. Then find out the total wages of 8 men, 6 women, and 4 boys

$6M = 8W \quad 4W = 6B$

$M = \frac{8W}{6} \quad B = \frac{4W}{6}$

taking all in single var.

$6M + 4W + 8B = 26$

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

$W = RS\ 1.5$
$M = RS\ 2$
$B = RS\ 1$

Then we need to for $8M, 6W, 4B$

$16 + 9 + 4 = RS\ 29$

10)

11)

10) P, Q, R get Rs 10800 for doing a work in 18 days. P and R get Rs 3760 for doing the same work in 10 days, while Q and R get Rs 6080 for doing same work in 20 days. Find the amount by R

P, Q, R = 10800 = 18d = 600 Rs - 1 day

P + R = 3760 = 10d = 376 - 1 day

Q R → 6080 Rs → 720 d → 304 - 1 day

P + Q + R = 600

~~376~~ P + 304 = 600

P = 296

P + R = 376

R = 80

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

A = 1d = $\frac{M}{18}$ days B: $\frac{M}{12}$ days

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

$\frac{5M}{36}$ → ? = $\frac{36}{5}$

M

12) Johnny employs 8 workers to work for 6 hours per day. In total he pays them RS 630 for a week. How much should Johnny pay 18 workers working 4 hrs per day for a week

Convert it into a common

6 hrs × 7 = 42 hrs 4 hrs/day → 7

8W 42 hrs = 630 4 × 7 = 28

1W 1 hr = $\frac{15}{8}$ hrs 18W 28 hr = $\frac{135}{c1}$ × 28

18W 1 hr = $\frac{15}{8} \times 18 = \frac{135}{4}$ Rs Rs. 945

13) Ram & Shyam have given a task of painting a house for Rs 800. With help of Rita, they complete the job in just 3 days. Had Ram alone be doing the job he would need 6 days. If Shyam need 8, how much more Rita gets

R → 6d → 1/6 S → 1/8 r = 1/r

$\frac{1}{6} + \frac{1}{8} + \frac{1}{r_i} = \frac{1}{3}$

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

$\frac{1}{6} : \frac{1}{8} : \frac{1}{24}$

4 : 3 : 1

r_i cost = $\frac{1}{4+3+1} \times 800 = 100$ Rs