

⑥

Person/s	A	B	A+B
Time taken to finish work (in days)	10	15	x
work done in 1 day	$\frac{1}{10}$	$\frac{1}{15}$	$\frac{1}{x}$

$$\begin{aligned} \frac{1}{x} &= \frac{1}{10} + \frac{1}{15} \\ &= \frac{3+2}{30} \\ \Rightarrow \frac{1}{x} &= \frac{5}{30} \\ \Rightarrow x &= 6 \end{aligned}$$

$$\begin{aligned} \text{A's 1 day earnings} &= \frac{1}{10} \times 3000 \\ &= \text{Rs } 300 \\ \text{A's 6 day earnings} &= 300 \times 6 \\ &= \text{Rs } 1800 \end{aligned}$$

⑦ Person/s

	A	B	A+B
work done in 1 day	$3x$	$4x$	$7x$
Time taken to finish work (in days)	$\frac{1}{3x}$	$\frac{1}{4x}$	$\frac{1}{7x}$
ratio of time taken to finish work			

$$= \frac{1}{3x} : \frac{1}{4x}$$

$$(\times 12x) = \frac{12x}{3x} : \frac{12x}{4x}$$

$$= 4 : 3$$

⑧ No of men/women
time to finish work
work done in/unit
time

5M	1M
12	12x5
$\frac{1}{12}$	$\frac{1}{60}$