

Solutions by Dev Anoop

③ Person/s	A	B	A+B
Time taken to finish work (in days)	9	x	6
work done in 1 day	$\frac{1}{9}$	$\frac{1}{x}$	$\frac{1}{6}$

$$\frac{1}{x} + \frac{1}{9} = \frac{1}{6}$$

$$\Rightarrow \frac{1}{x} = \frac{1}{6} - \frac{1}{9}$$

$$= \frac{3-2}{18}$$

$$= \frac{1}{18}$$

$$\Rightarrow x = 18$$

④ Person/s	Rajiv	Siraj	together
time taken to finish work (in h)	15	x	6
work done in unit time	$\frac{1}{15}$	$\frac{1}{x}$	$\frac{1}{6}$

$$\frac{1}{x} + \frac{1}{15} = \frac{1}{6}$$

$$\Rightarrow \frac{1}{x} = \frac{1}{6} - \frac{1}{15}$$

$$= \frac{5-2}{30}$$

$$= \frac{3}{30}$$

$$= \frac{1}{10}$$

$$\Rightarrow x = 10$$