

⑧

no. of machines $x_i$	42	$x_2$
Time taken to finish work $y_i$	63	54

$\therefore x$  and  $y$  vary inversely

$$x_1 y_1 = x_2 y_2$$

$$7 \cancel{42} \times \cancel{63}^7 = x_2 \times \cancel{54}^6$$

$$\Rightarrow x_2 = 49$$

⑨

speed (in km/h) $x_i$	60	80
time taken to reach destination $y_i$	2	$y_2$

$\therefore x$  and  $y$  vary inversely

$$x_1 y_1 = x_2 y_2$$

$$3 \cancel{60} \times \cancel{2} = \cancel{80}^4 \times y_2$$

$$\Rightarrow y_2 = \frac{3}{2}$$

$$= 1\frac{1}{2}$$