

$$\begin{aligned} \text{The part of field cultivated by A in 1 day} &= \frac{2}{5 \times 6} \\ &= \frac{1}{15} \end{aligned}$$

The part of field cultivated by B in 1 day

$$B = \frac{1}{3 \times 10} = \frac{1}{30}$$

\therefore The part of field cultivated by A and B together in 1 day $= \frac{1}{15} + \frac{1}{30} = \frac{3}{30} = \frac{1}{10}$

$\therefore \frac{4}{5}$ part of field is cultivated by A and B together in 1 day $= \frac{4}{5} \div \frac{1}{10} \text{ days} = \frac{4 \times 10}{5} = 8 \text{ days}$