

17. TIME AND DISTANCE

IMPORTANT FACTS AND FORMULAE

1. $\text{Speed} = \left(\frac{\text{Distance}}{\text{Time}} \right)$, $\text{Time} = \left(\frac{\text{Distance}}{\text{Speed}} \right)$, $\text{Distance} = (\text{Speed} * \text{Time})$

2. $x \text{ km / hr} = x * \frac{5}{18}$

3. $x \text{ m/sec} = (x * 18/5) \text{ km /hr}$

4. If the ratio of the speeds of A and B is $a:b$, then the ratio of the times taken by them to cover the same distance is $\frac{1}{a} : \frac{1}{b}$

$a : b$

or $b:a$.

5. Suppose a man covers a certain distance at $x \text{ km/ hr}$ and an equal distance at $y \text{ km / hr}$. Then, the average speed during the whole journey is $\frac{2xy}{x+y} \text{ km/ hr}$.