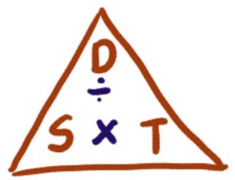
Speed, Distance, Time



$S = \frac{D}{T}$ Average mean speed — Units: m/s, km/hr

$T = \frac{D}{S}$ seconds, minutes hours

$D = S \times T$ meters, km, miles

Eg. A journey of 276km began at 10 40 hours and ended on the same day at 1430 hours.

Find the average speed of the journey.

Calculator [0 9 9 9]

$S = \frac{D}{T}$

Time $14:30 \Rightarrow 13:90$ (30)
$-10:40 \quad -10:40$
$3:50$ Time

$D = 276km$

$T = 3hrs\ 50mins.$

$50/60 = .83$

$S = \frac{276}{3\ 50/60}$ OR $\frac{276}{3.83}$

$S = 72\ km/hr$

Eg 2) It takes 4 hours 20 mins to travel a journey at an average speed of 120km/hr How many hours and minutes will it take to travel the same journey if the average speed is reduced to 100km/hr.

$D = S \times T$

$120 \times 4\,^{20}/_{60}$

$D = 520km$

Reduced speed 100km/hr

$T = {}^{D}/_{S}$ $\quad \frac{520}{100} = 5.2$

5 hours 12 minutes.

• .2 is in minutes

x 60

= 12 minutes.

C/W

Pg 126

Q1 → 3.