ARITHMETIC (Q 1, PAPER 1)

LESSON NO. 8: SPEED

2003

1 (a) A train leaves Cork at 09:05 and arrives in Dublin at 12:25.
The distance from Cork to Dublin is 250 km.
Find the average speed of the train in km/h.

SOLUTION

Hours Minutes

12	25
9	05
3	20

$v = \dfrac{s}{t}$ **4**

$s = 250$ km

$t = 3$ hr 20 min $= 3\frac{1}{3}$ hr

$\therefore v = \dfrac{250 \text{ km}}{3\frac{1}{3} \text{ hr}} = 75$ km/hr [Using calculator]

1999

1 (b) A car journey of 559 kilometres took 6 hours and 30 minutes.
  (i) Calculate the average speed, in km/hr, for the journey.

  (ii) If the average petrol consumption for the journey was 8.3 kilometres per litre,
  calculate the number of litres of petrol used, correct to the nearest litre.

SOLUTION

1 (b) (i) Distance $s = 559$ km, time $t = 6$ hours 30 minutes $= 6.5$ hours, speed $v = ?$

$$v = \frac{559 \text{ km}}{6.5 \text{ h}} = 86 \text{ km/h}$$

$v = \dfrac{s}{t}$ **4**

1 (b) (ii) How many 8.3 km are contained in 559 km?

$$\text{No. of litres} = \frac{559}{8.3} = 67 \text{ litres}$$