Example 14

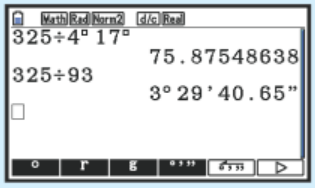
Self Tutor

A car is travelling a distance of 325 km.

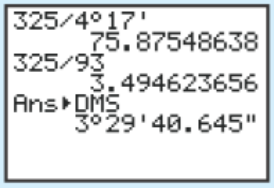
a Find its average speed if the trip takes 4 h 17 min.

b Find the time taken if the average speed is 93 km h^{-1}.

Casio fx-CG20



TI-84 Plus



TI-*n*spire

a average speed

$= \dfrac{\text{distance travelled}}{\text{time taken}}$

$= \dfrac{325 \text{ km}}{4 \text{ h } 17 \text{ min}}$

$\approx 75.9 \text{ km h}^{-1}$

b time taken

$= \dfrac{\text{distance travelled}}{\text{average speed}}$

$= \dfrac{325 \text{ km}}{93 \text{ km h}^{-1}}$

$\approx 3 \text{ h } 29 \text{ min } 41 \text{ s}$

GRAPHICS CALCULATOR INSTRUCTIONS

Example 16

Self Tutor

Suburb A covers 6.3 km^2 and has a population of 28 700 people.
Suburb B covers 3.9 km^2 and has a population of 16 100 people.
Which suburb is more heavily populated?

Suburb A has $\dfrac{28\,700 \text{ people}}{6.3 \text{ km}^2} \approx 4556$ people per km^2.

Suburb B has $\dfrac{16\,100 \text{ people}}{3.9 \text{ km}^2} \approx 4128$ people per km^2.

$\therefore$ suburb A is more heavily populated.