

1 The heel of a shoe exerts a pressure of 198 pounds per square inch.

Convert this pressure into kilograms per square centimetre.

Use

$$1 \text{ pound} = 0.45 \text{ kilograms}$$

$$1 \text{ square inch} = 6.25 \text{ square centimetres}$$

[3 marks]

Answer _____ kg/cm^2

2

Tom and Adil are the two runners in a 200-metre race.
Tom completes the race in 24 seconds.
Adil completes the race at an average speed of 28.8 kilometres per hour.

Who wins the race?
You **must** show your working.

[3 marks]

Answer

Concrete from a truck is poured at 10.9 kg **per second** for 30 minutes.

1000 kg = 1 tonne

Tick a box.



[4 marks]

4

Town A has

a population of 84 000

an area of 7 **square miles**.Town B has a population density of 4695 people per **square kilometre**.

$$\text{Population density} = \frac{\text{population}}{\text{area}}$$

Which town has the greater population density?

Use 1 square mile = 2.6 square kilometres

Tick a box.

Town A

☐

Town B

☐

Show working to support your answer.

[3 marks]
