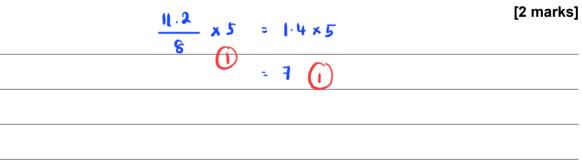
1 Convert 11.2 kilometres into miles.

Use 8 km = 5 miles



Answer ____ miles

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

Convert this pressure into kilograms per square centimetre.

Use

1 pound = 0.45 kilograms

1 square inch = 6.25 square centimetres

[3 marks	x 1 inch²	0.45 kg	198 pound	
	6.25 cm²	1 Pound	1 inch²	•
			198 × 0.45 ①	3
			6.25	
			00.4	

Answer _____ kg/cm²

3 Tom and Adil are the two runners in a 200-metre race.

Tom completes the race in 24 seconds.

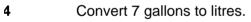
Adil completes the race at an average speed of 28.8 kilometres per hour.

Who wins the race?

You **must** show your working.

Speed in
$$m/s$$
:
$$T_{om} = \frac{200 \text{ m}}{24.5} = 8.33 \text{ ms}^{-1}$$

$$Adil = \frac{28.8 \text{ km}}{1 \text{ hour}} \times \frac{1000 \text{ m}}{1 \text{ km}} \times \frac{1 \text{ hour}}{3600 \text{ s}}$$



1 gallon = 4.5 litres Use

[2 marks]



31.5

Answer

litres

[2 marks]

- **5** Jamil is on holiday in France.
- **5** (a) The cost of a room in a hostel is 27 euros.

Convert the cost to £

Use £1 = 1.2 euros

Answer £ 22.50

5 (b) Jamil rides a motorbike.

The motorbike uses one litre of petrol for every 14 miles.

How many litres of petrol does the motorbike use to go 168 kilometres?

Use 8 kilometres = 5 miles

Answer 7.5 litres

6 (a) Complete the statement.



[1 mark]

$$2m \times 100 = 200 \text{ cm}$$



centimetres

6 (b) Complete the statement.



[1 mark]

grams

6 (c) Convert 24 kilometres to miles.

Use 8 kilometres = 5 miles

[2 marks]

$$\frac{3}{4} \text{ km } \times \frac{5 \text{ miles}}{8 \text{ km}} = 15 \text{ miles}$$

Answer

15

miles

7 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**.

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.

Show working to support your answer.

[3 marks]