

Name: _____

GCSE (1 – 9)

Units and Conversions

Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

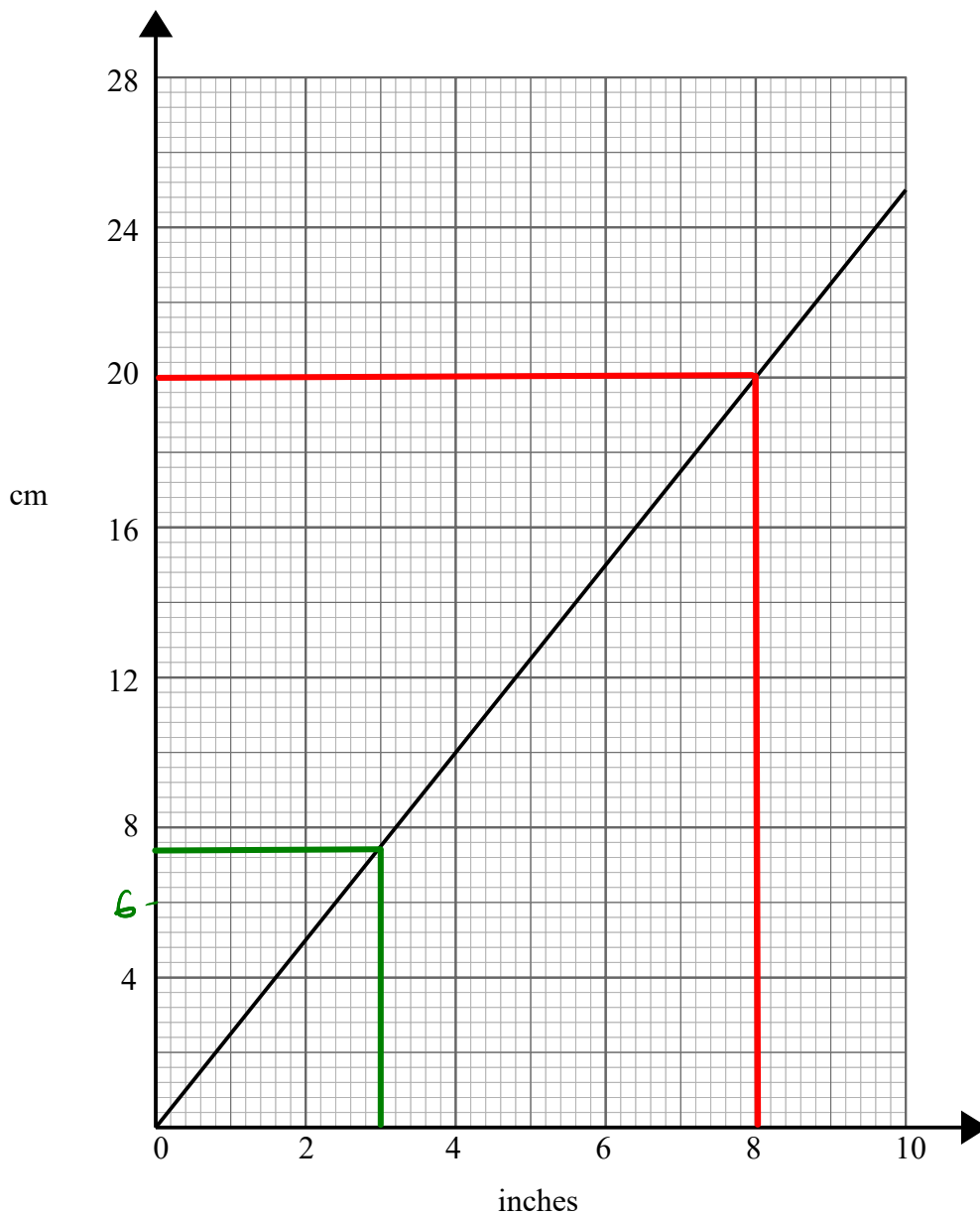
Information

- The marks for each question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

1 You can use this graph to change between inches and centimetres.



(a) Change 3 inches to cm

..... 7.4 cm

(b) Change 50 cm to inches

(7.4 to ⁽¹⁾ 7.6)

20 cm = 8 inches
10 cm = 4 inches
50 cm = 20 inches

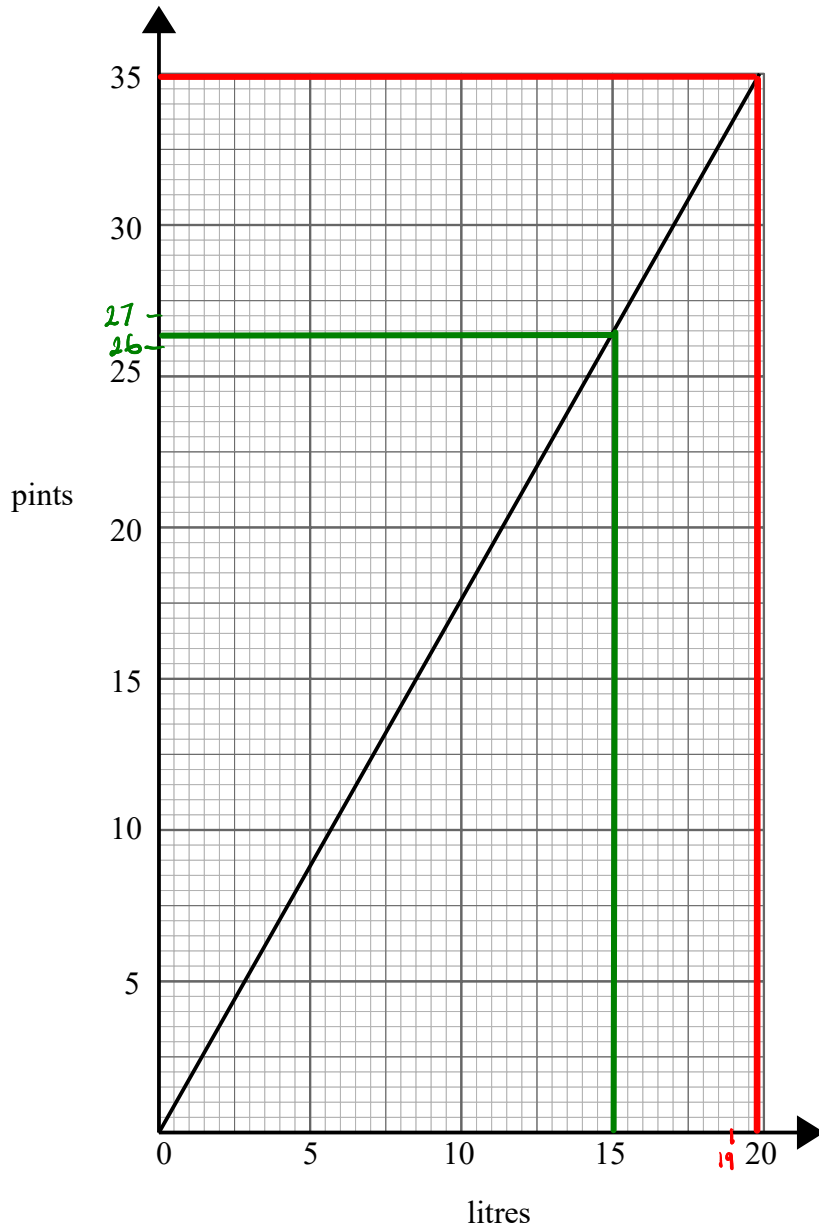
..... 20 inches

(2)

(Total for Question 1 is 3 marks)

2

You can use this graph to change between litres and pints.



(a) Change 15 litres to pints.

..... 26.4 pints

(26.3 - 26.5)⁽¹⁾

(b) Change 70 pints to litres.

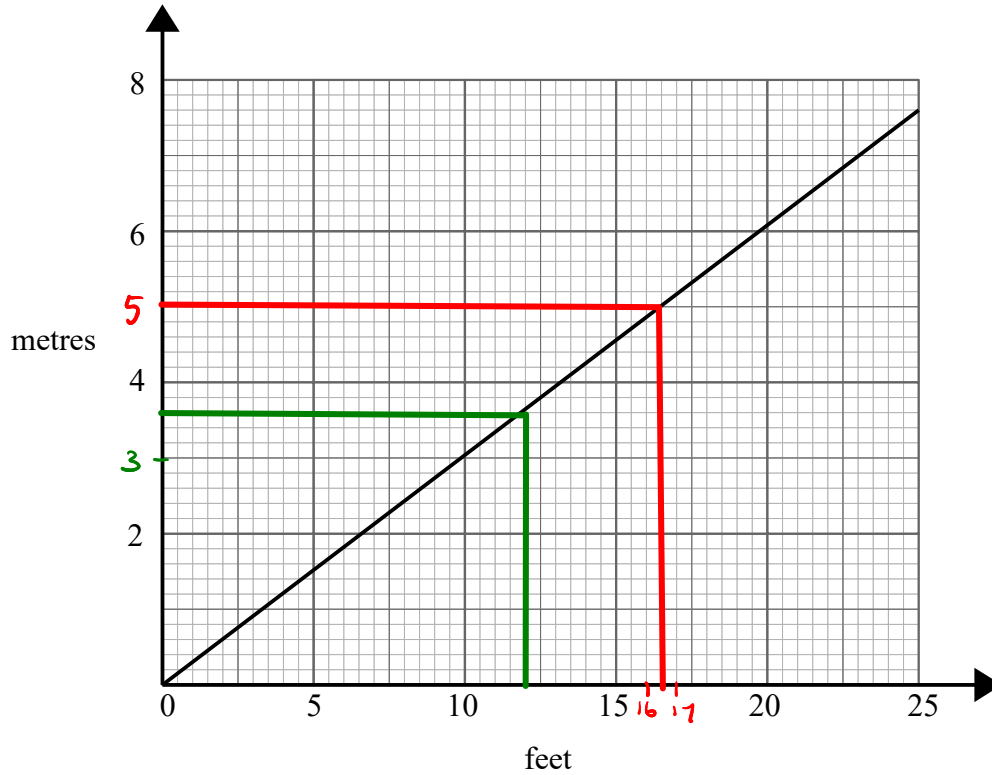
35 pints = 19.75 litres $\times 2$
 $\times 2$ 70 pints = 39.5 litres

..... 39.5 litres

(39.5 to 39.7)⁽²⁾

(Total for Question 2 is 3 marks)

3 You can use this graph to change between feet and metres.



(a) Change 12 feet to metres.

(b) Change 25 metres to feet.

..... 3.6 metres
 (3.6 to 3.7) ⁽¹⁾

$$5 \text{ metres} = 16.5 \text{ feet} \quad \times 5$$

$$25 \text{ metres} = 82.5 \text{ feet}$$

..... 82.5 feet
 (81 to 83) ⁽²⁾

(Total for Question 3 is 3 marks)

4 You can use this graph to change between stones and kilograms.



(a) Change 7 stones to kilograms.

..... 44.5 kg

(44 to 45)⁽¹⁾

(b) Change 100 kilograms to stones.

$$50 \text{ kg} = 7.9 \text{ stones}$$

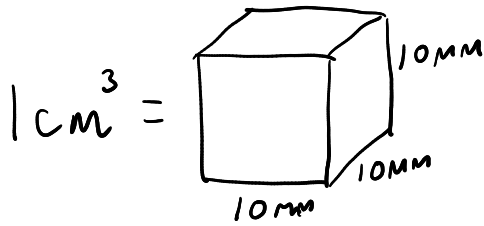
$$100 \text{ kg} = 15.8 \text{ stones}$$

..... 15.8 stones

(15.7 to 15.9)⁽²⁾

(Total for Question 4 is 3 marks)

5 Write 35 cm^3 in mm^3



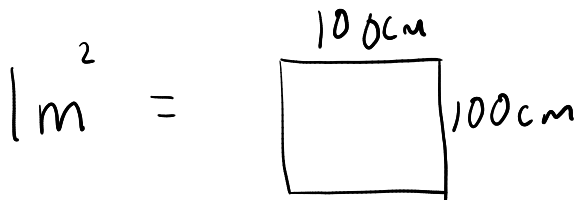
$$10 \times 10 \times 10 = 1000 \text{ mm}^3$$

$$1 \text{ cm}^3 = 1000 \text{ mm}^3$$

..... 35000 mm^3

(Total for Question 5 is 1 mark)

6 Write 4.5 m^2 in cm^2



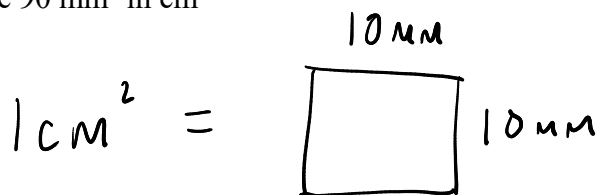
$$100 \times 100 = 10000$$

$$1 \text{ m}^2 = 10000 \text{ cm}^2$$

..... 45000 cm^2

(Total for Question 6 is 1 mark)

19 Write 90 mm^2 in cm^2



$$10 \times 10 = 100$$

$$1 \text{ cm}^2 = 100 \text{ mm}^2$$

..... 0.9 cm^2

(Total for Question 7 is 1 mark)

9 Write 30 kilometres per hour in metres per second

30 km in 1 hour
30 000 m in 1 hour
30 000 m in 60 minutes
÷60

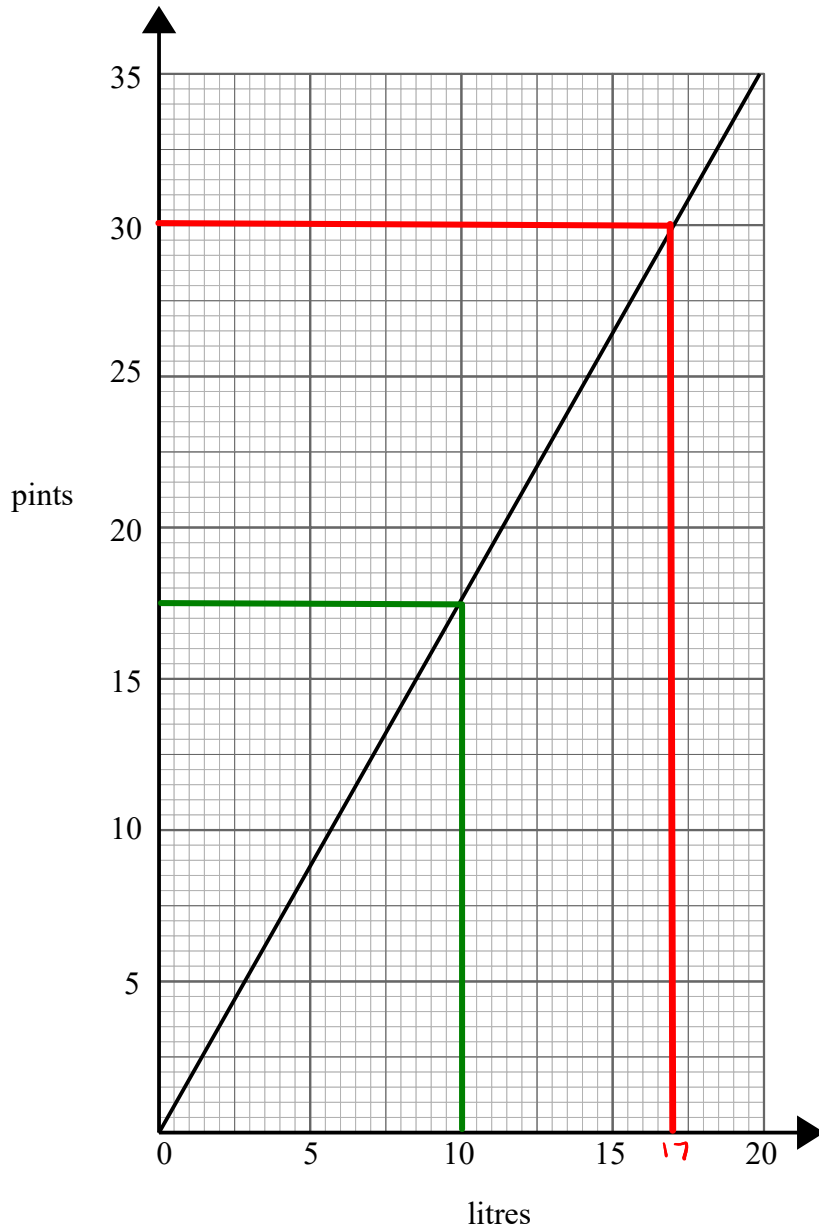
500 m in 1 min
500 m in 60 seconds
÷60

8.3 m in 1 second

.....8.3..... m/s

(Total for Question 9 is 2 marks)

10 You can use this graph to change between litres and pints.



(a) Change 10 litres to pints.

..... 17.5 pints

(1)

(b) Change 90 pints to litres.

$$\begin{aligned}
 &30 \text{ pints} = 17 \text{ litres} \\
 &\times 3 \qquad \qquad \qquad \times 3 \\
 &90 \text{ pints} = 51 \text{ litres}
 \end{aligned}$$

..... 51 litres

(50 - 52) (2)

(Total for Question 10 is 3 marks)