

SECTION 1 – CALCULATOR NOT PERMITTED

There are **15** marks available in this section.

You should check all your work as you go along.

You must **not** use a calculator in this section.

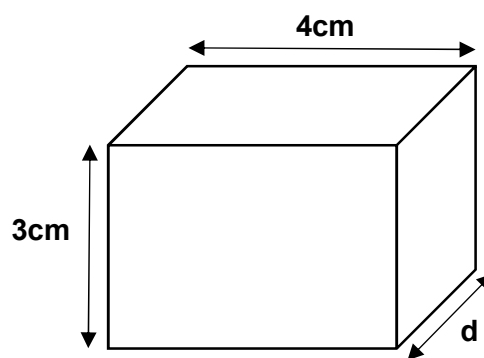


Q1

$$846.7 \div 100 =$$

(1 mark)

Q2 The volume of this cuboid is 24cm^3 .



What is the value for the depth d ?

_____ cm

(1 mark)

Q3

$$9^2 =$$

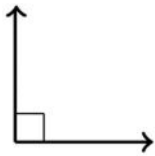
(1 mark)

Q4

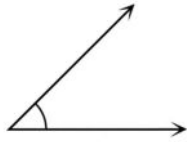
$$18 - 5 \times 2 =$$

(1 mark)

Q5



A



B



C



D

Which of the above has an angle of 180° ?

(tick one box)

A ☐

B ☐

C ☐

D ☐

(1 mark)

Q6

Write two hundred and forty-six thousand eight hundred and five in figures

(1 mark)

Q7

What is $\frac{2}{5}$ as a decimal?

(tick one box)

A 0.4 ☐

B 0.2 ☐

C 0.25 ☐

D 0.04 ☐

(1 mark)

Q8

$$-6 + 4 =$$

(tick one box)

- | | | |
|----------|-----|--------------------------|
| A | -10 | <input type="checkbox"/> |
| B | -2 | <input type="checkbox"/> |
| C | 2 | <input type="checkbox"/> |
| D | 10 | <input type="checkbox"/> |

(1 mark)

Q9

What is the range of these weights?

40 kg 65kg 27kg 84kg 34kg

_____ **kg**

(1 mark)

Q10 At a rugby match 19 417 home fans and 2 648 away fans attend.

What is the total attendance, rounded to the nearest hundred?

(1 mark)

Q11 A company conducts a survey. The survey asks people their ages.
The data will be grouped.

Complete the table with the missing age groups.

Age group boundaries
25 and under
26 - 35
46 - 55
65 and over

(1 mark)

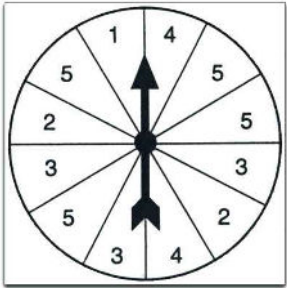
Q12 A manager wants to know the ratio of men to women in their factory. There are 135 men and 270 women working at the factory.

What is the ratio of men to women?

_____ : _____

(2 marks)

Q13 A fair has a spin the arrow game.
A player wins a prize if the arrow lands on a 5.



What is the probability of a player winning a prize?
Write your answer as a fraction in its simplest form.

(2 marks)

End of Section 1

Total marks: 45

SECTION 2 – CALCULATOR PERMITTED

[illegible][illegible]

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***I declare that I had no prior knowledge of the questions in this assessment and that I will not share information about the questions.**

- a calculator
- a pen with black or blue ink
- a pencil (for diagrams, graphs and charts only)
- an eraser
- a 30cm ruler
- a protractor.



- Read through each question carefully.
- Show your working out (where required).
- Write all your working out and answers in this booklet.
- Check your calculations and check that your answers make sense.
- There are additional pages **including graph paper** at the back of this booklet if you run out of space or ask the invigilator if you need additional sheets of paper.

SECTION 2 – CALCULATOR PERMITTED

There are **45** marks available in this section.

You should check all your work as you go along.

You may use a calculator.



Q1

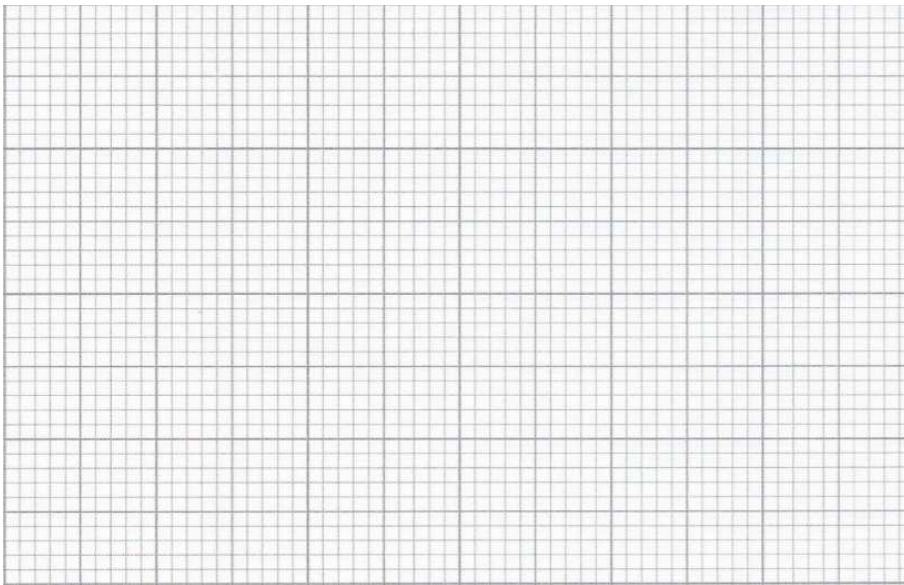
15	24	16	18	21
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What is the mean of these numbers?

(1 mark)

Q2

Draw a square with sides of 2cm



(1 mark)

Q3

Write $\frac{33}{8}$ as a mixed number.

(1 mark)

Q4

Which of the following lists is in increasing order from smallest to largest?

(tick one box)

- A** 52% 53% 50% 55% ☐
- B** 50% 52% 53% 55% ☐
- C** 55% 52% 53% 50% ☐
- D** 50% 53% 52% 55% ☐

(1 mark)

Q5

140 x _____ = 8400

(1 mark)

Q6 A student states that 540cm is the same as 54m.

Are they correct? Explain your answer.

Are they correct? *(tick one box)* Yes ☐ No ☐

Explanation

(1 mark)

Q7 The formula below can be used to calculate interest on a savings account after one year:

amount put into account x interest rate **as a decimal**

A woman puts £2 500 into an account. The interest rate is 5%.

What will be in the account after one year?

Show your working

£ _____

(3 marks)

Q8 A taxi company charges £5 standing charge and £1.50 per mile for a journey.

A man travels in a taxi for 12.2 miles.

What is the cost of his journey?

Show your working

£ _____

(3 marks)

Q9 A student receives two loans. One is for £9 153 and the other is for £8 944.

Approximately $\frac{1}{2}$ of the loans will be spent on tuition fees and $\frac{1}{4}$ of the loans will be spent on accommodation.

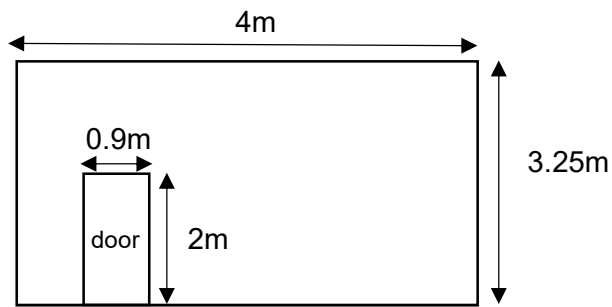
Estimate the amount of money they will have left.

Show your working

£ _____

(4 marks)

- Q10** A decorator is painting a room and has one wall left to paint. They have enough paint to cover 12m^2 . The dimensions of the wall are shown below:



Sketch not to scale

She will not paint over the door.

Do they have enough paint for the wall?

Explain your answer. Use figures in your answer.

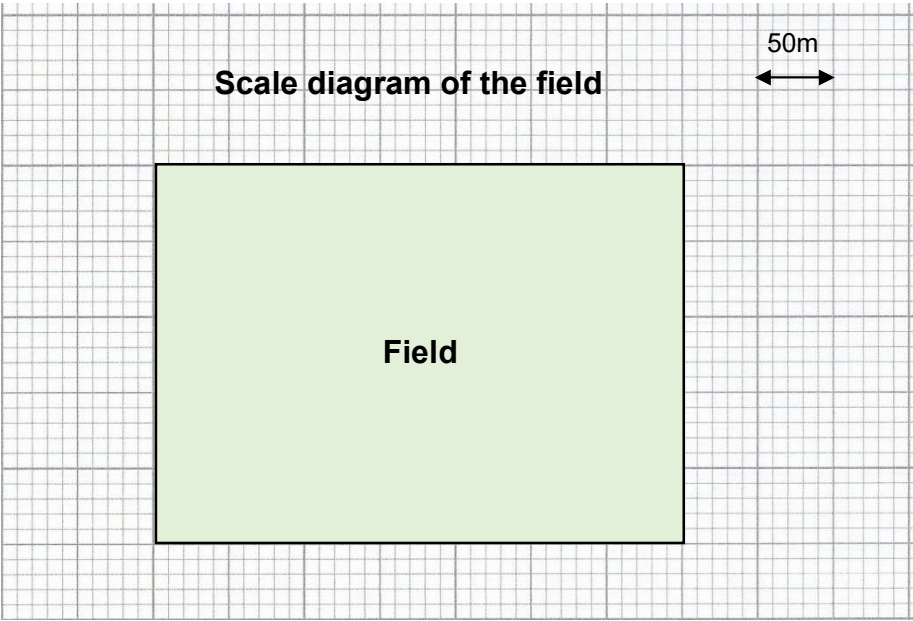
Show your working

Do they have enough paint? (tick one box) Yes ☐ No ☐

Explanation

(4 marks)

Q11 A local sports club organises a sponsored walk around the edge of a field.



Each person will walk round the field 5 times.

How far will each person walk in kilometres?

Show your working

_____ km

(4 marks)

Q12 A cricket club sells 5,062 tickets for a charity match. 3,484 are Adult tickets and the rest are Under 18s tickets.

Ticket Prices	
Adults	£18
Under 18s.....	£12

85% of ticket sales pay for the event. The rest goes to community projects.

How much does the club give to community projects?

Show your working

£ _____

(5 marks)

Q13 A gardener needs to buy compost to fill this tub.

The diagram shows the dimensions of the tub

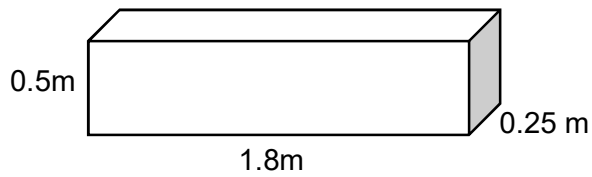


Diagram not to scale

They buy compost in 50 litre bags

1000 litres = 1m³

How many bags of compost must they buy?

Show all your working

Number of bags _____

(5 marks)

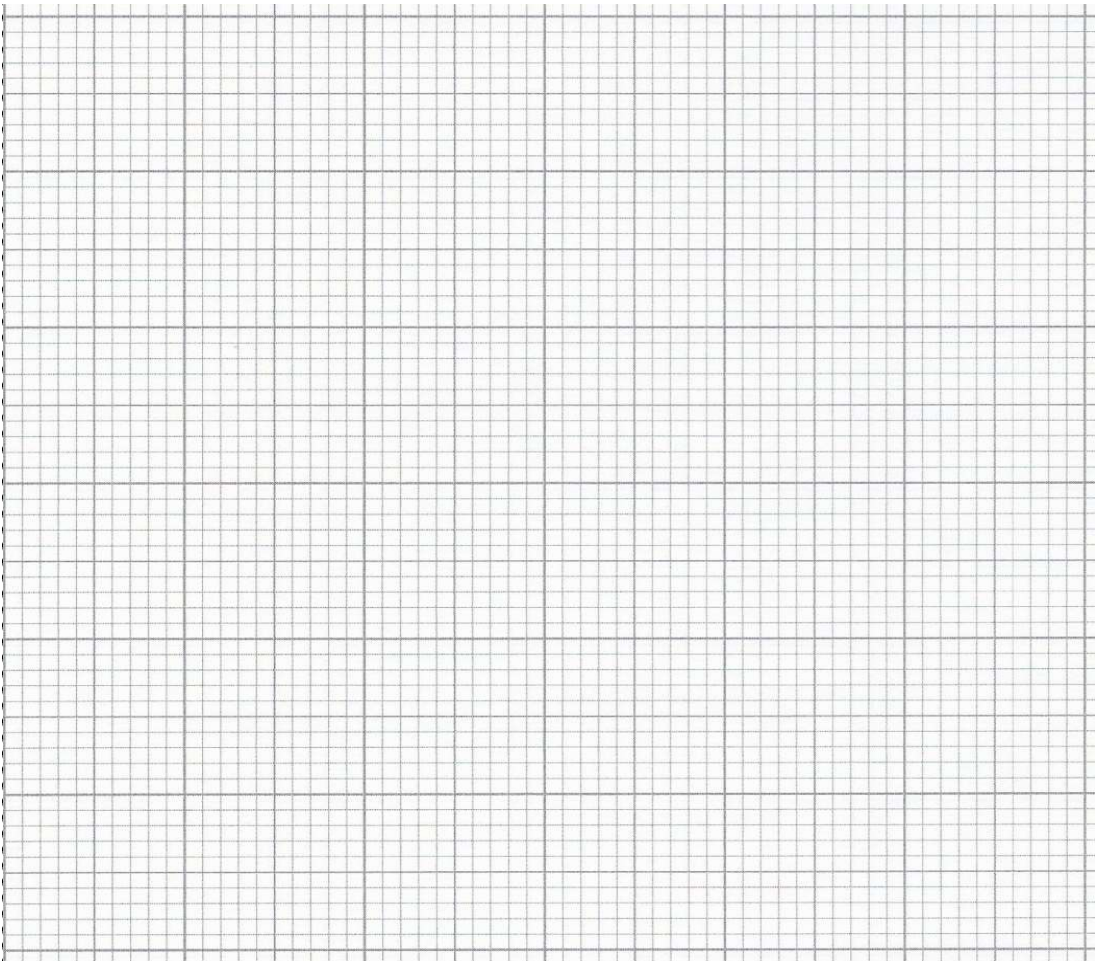
Q14 20 students take a maths test. Their tutor records the scores. The list below shows their scores:

15, 24, 6, 8, 29, 6, 12, 17, 24, 22, 25, 30, 18, 3, 11, 7, 18, 27, 28, 27

Present these scores in **three** suitable groups

(2 marks)

Present this information in a suitable chart or graph.



There is spare graph paper on pg 21

(3 marks)

Q15 A school thinks their results are better than the national average.

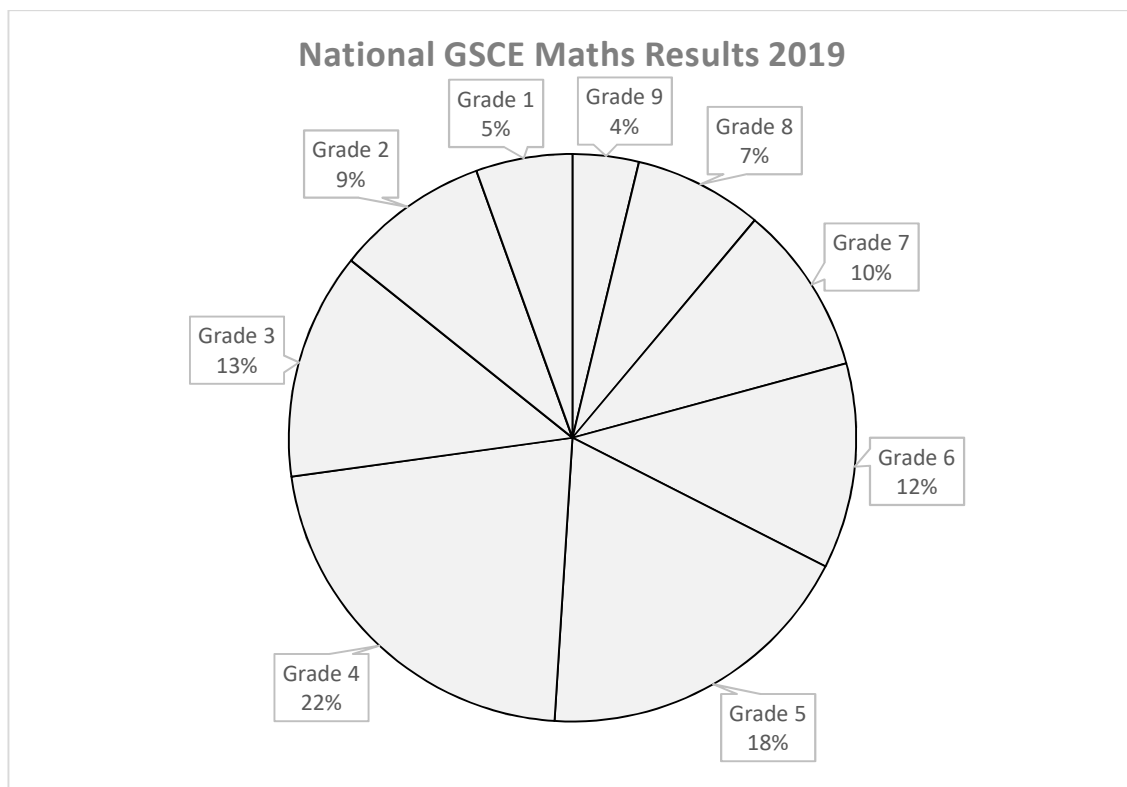
The school has a target for 65% of their students to achieve a Grade 4 or higher in their Maths GCSE.

A school governor uses this school table to check results.

School GCSE Maths Results 2019	
Grade	Number of Students
9 - Highest	7
8	11
7	18
6	22
5	27
4	55
3	27
2	22
1 - Lowest	11

She wants to compare her school's results with the national Maths GCSE results for Grade 4 and above.

She sees these national results.



She needs to write a report for the board of governors.

She says that the school has met its target **and** that its results are better than the national average.

Is the governor correct?

Explain your decisions. Show calculations to support your explanation.

Show all your working.

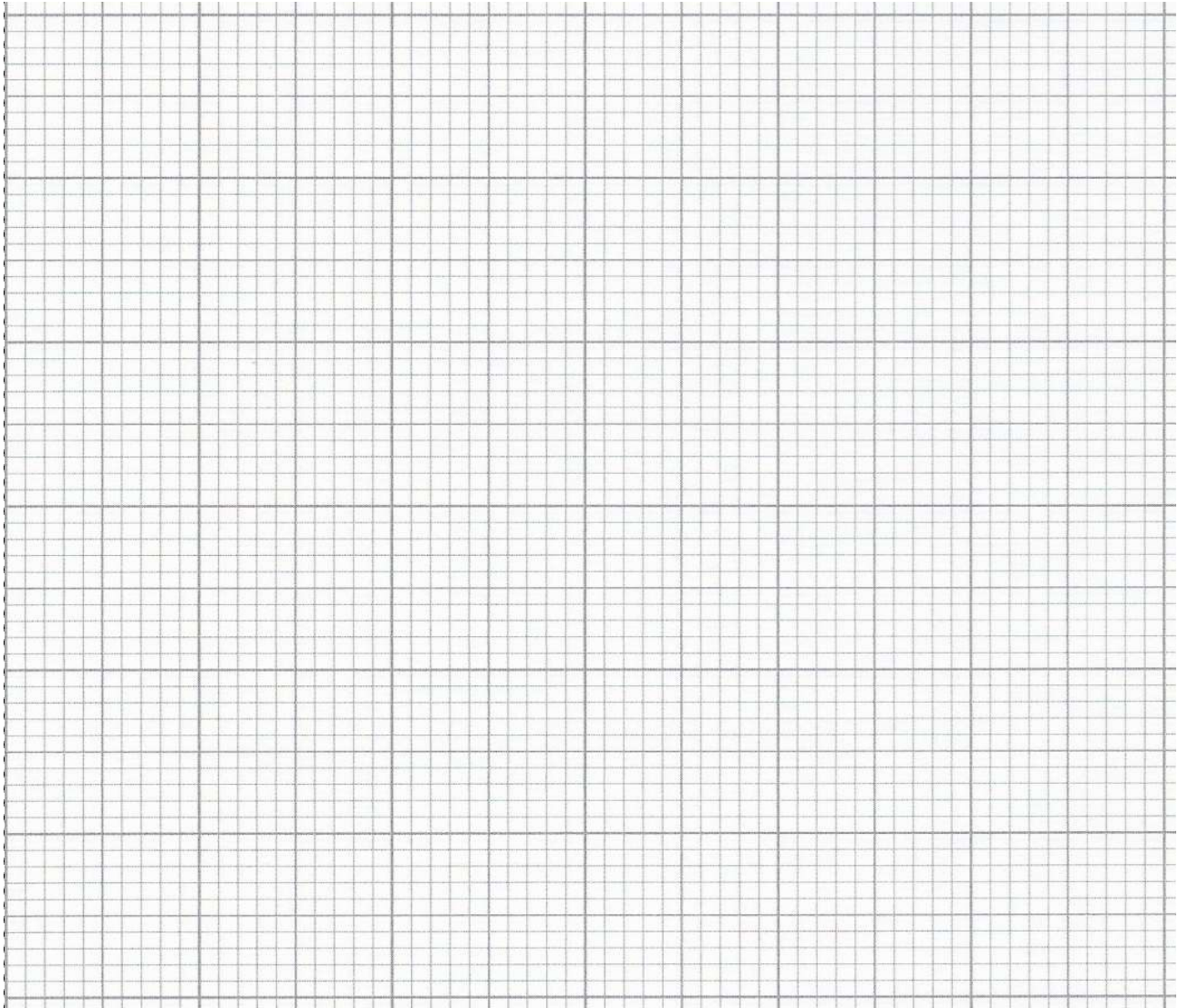
Target met? *(tick one box)* Yes ☐ No ☐

Better than national average? *(tick one box)* Yes ☐ No ☐

Explanation

(6 marks)

Spare graph paper for Question 14



End of Section 2