# Level 1 Functional Skills Mathematics
# SAMPLE PAPER 2

A City & Guilds Group Business
Version 1.0

## Duration: 1 hour 20 minutes
## Total marks: 45

## SECTION 2 – CALCULATOR PERMITTED

Candidate name (first, last)

First

Last

Candidate enrolment number

Date of birth (DDMMYYYY)

Assessment date (DDMMYYYY)

Centre number

Candidate signature and declaration*

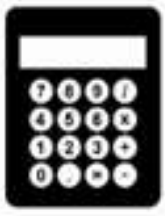
• If you have used any additional answer sheets write the number of additional sheets in this box.
• Please ensure that you **staple** additional answer sheets to the **back** of this booklet, clearly labelling them with your full name, enrolment number, centre number and date in BLOCK CAPITALS.
• You must use a black or blue pen. You may use a pencil for charts and diagrams.

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

**Please check that your name is correctly printed on the candidate barcode label. If not, please tell the invigilator before the start of the exam.**

**You should have the following for this assessment**

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



**General instructions**

- 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 |
|---|---|---|---|---|

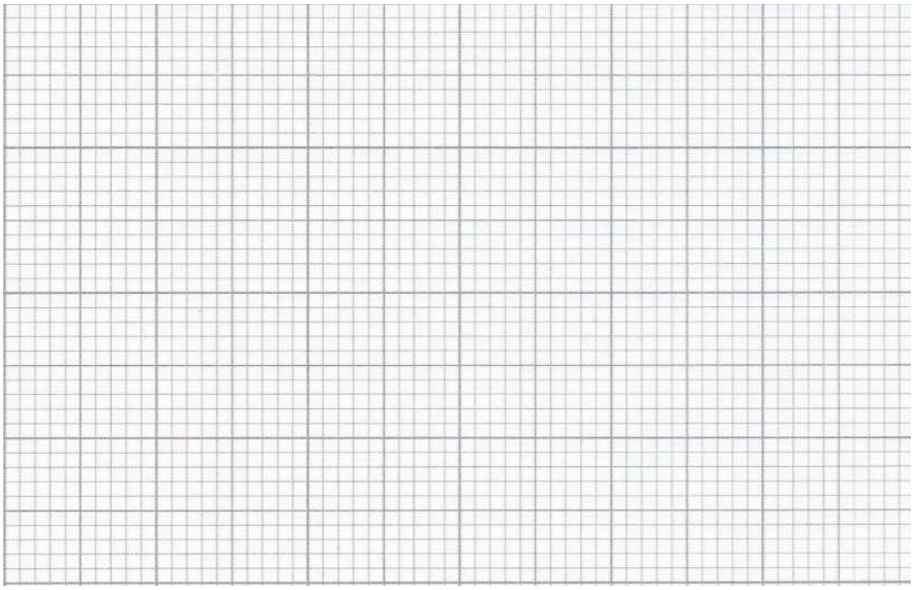
What is the mean of these numbers?

_____

**(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.

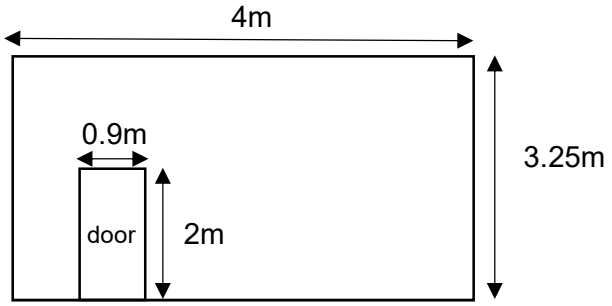
Estimate the amount of money they will have left.

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 12m². 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.

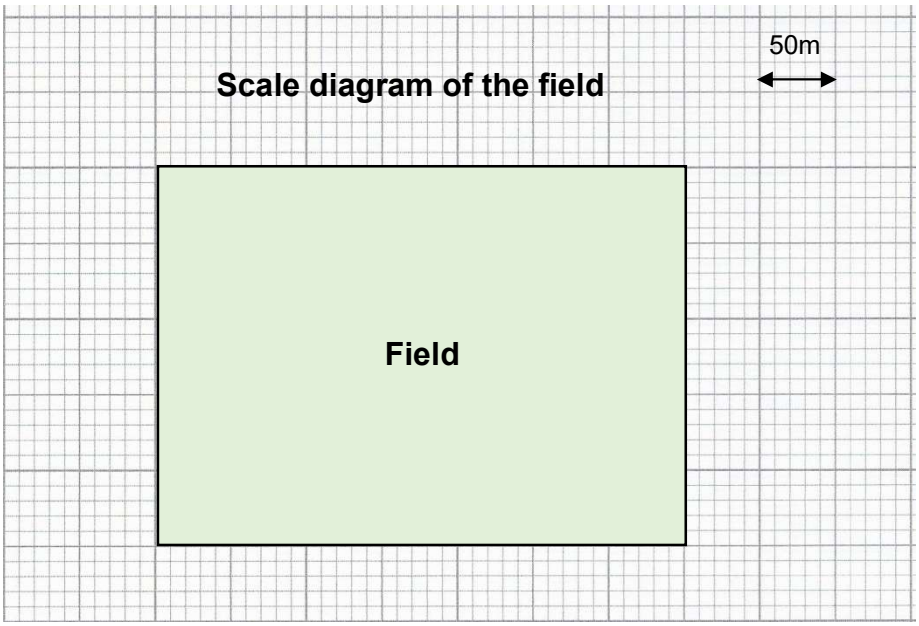
**Show your working**

**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

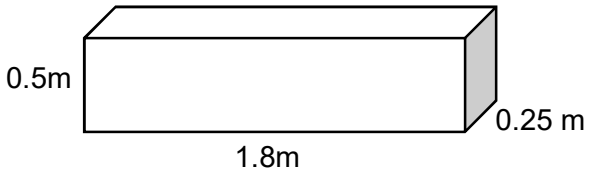
**£ _____**

**(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)**

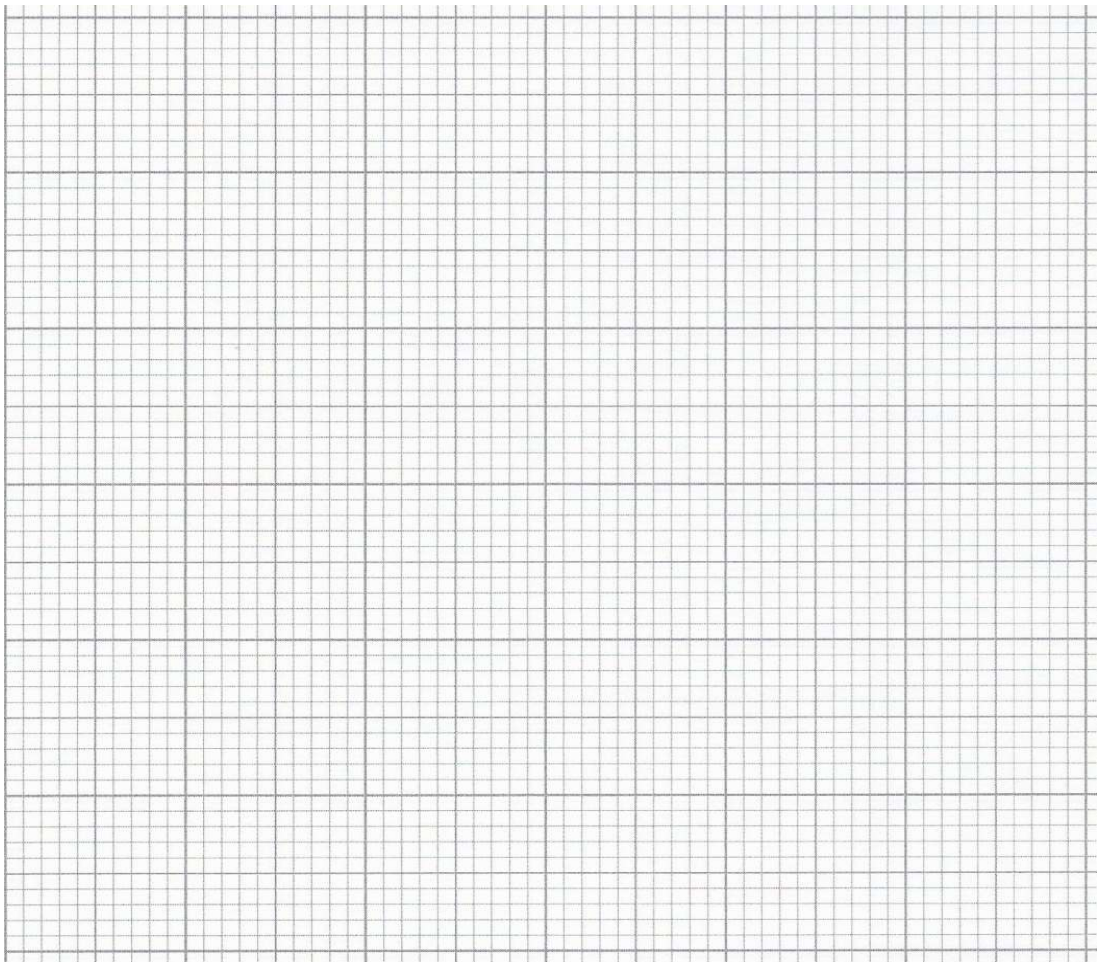
**Q14** 20 students take a maths test. Their tutor records the scores. The list below shows their scores:

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.

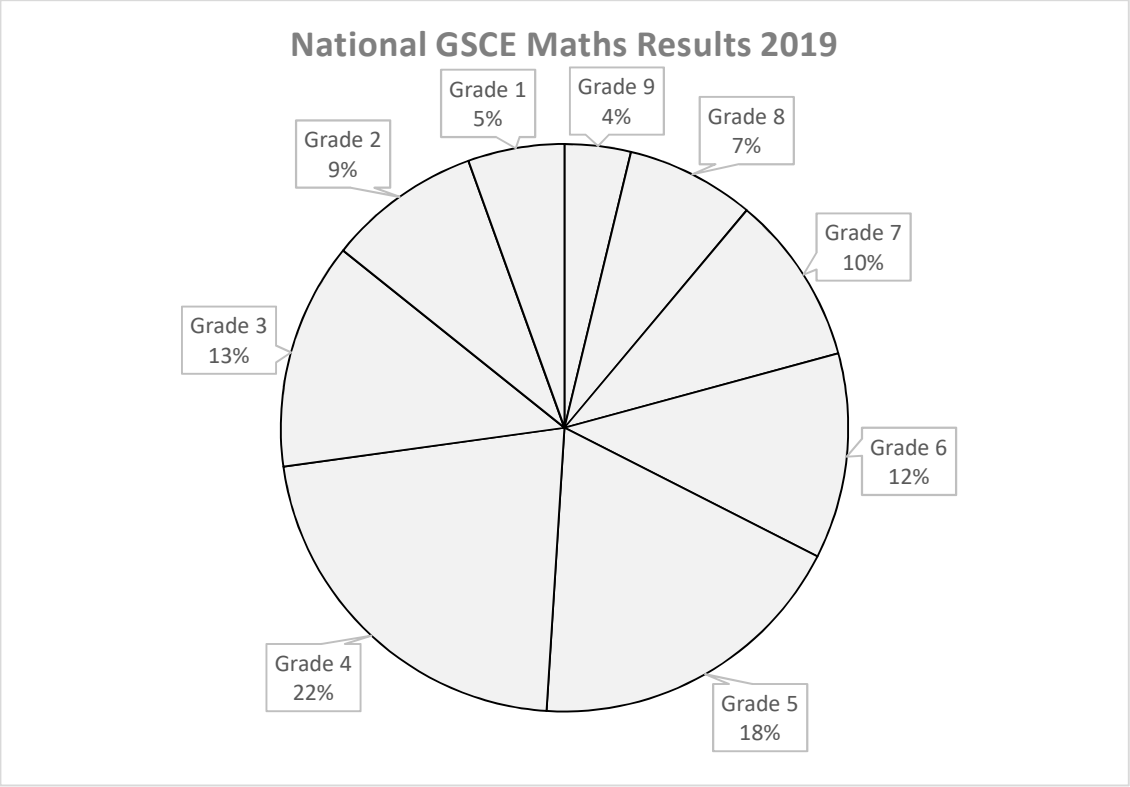
The school has a target for 65% of their students to achieve a Grade 4 or higher in their Maths GSCE.

A school governor uses this school table to check results.

| School GSCE 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.**

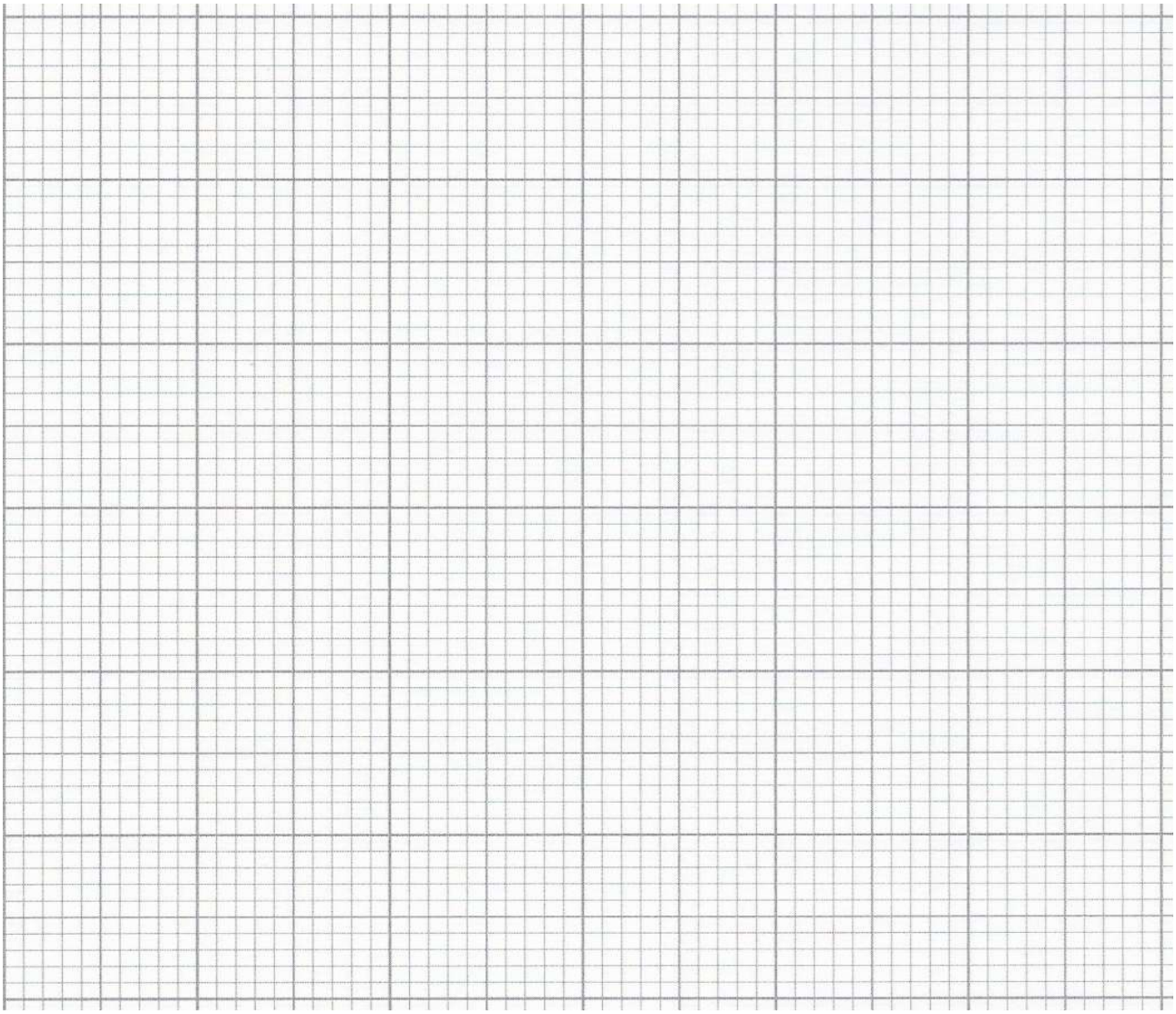
**Target met?** *(tick one box)* **Yes** ☐ **No** ☐

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

**Explanation**

**(6 marks)**

**Spare graph paper for Question 14**



**End of Section 2**