

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**.

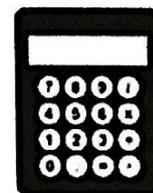
• You must use a black or blue pen. You may use a pencil for charts and diagrams.

***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.





FUNCTIONAL SKILLS ONLINE COURSES

- ✓ Your answers are analysed to determine your Current Level
- ✓ Suggested courses for you to enrol on based on your calculated level
- ✓ Always know the level you are currently working at
- ✓ Determine when you are ready to sit your exam

Recommendations

Based on your results from this initial assessment, we estimate you are currently at **Level 1.5**. From this diagnostic, we think one of the following courses would be suitable:

Functional Skills Maths Level 2

35 Topic Count | 105 Tests

43 Mock Exams

Enrol Now

Pick my own

Functional Skills English Initial Assessment

English

13 Questions | No Time Limit

Start Initial Assessment

Functional Skills Maths Initial Assessment

Maths

25 Questions | Mixed Calculator | No Time Limit

Start Initial Assessment

- ✓ Explainer videos on every topic
- ✓ Quick-fire style multiple choice questions
- ✓ Test your knowledge with exam-style questions
- ✓ Written solutions for all questions

Why do we write...

Practice Question 1 of 5

70 + 113 = 183

Correct answer: 183

Written Solution: 70 + 113 = 183

Addition and Subtraction (including decimals) Topic Test Instructions

These are practice questions for Addition and Subtraction (including decimals). They will get you to familiarise yourself with the format and difficulty. These questions are intended to be used as a guide only. Please do not use them for your final exam.

Course Completion %

View the completion percentage for the course.

6.44%

Using Numbers

16 TOPICS

27.08% Complete

Start Learning

Previous Results for Addition and Subtraction (including decimals)

ATTEMPT DATE	DIFFICULTY	RESULT
25/04/2022 15:39	Easy	80%
18/01/2022 14:01	Medium	20%

- ✓ See your progress through as you progress through each topic area
- ✓ Get your average scores for practice questions, topic tests and mock exams
- ✓ View all practice question, topic test and mock exam attempts over time
- ✓ View historical attempts to analyse your progress over time

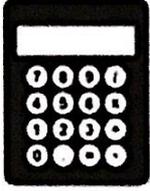
Or visit
passfunctionalskills.co.uk

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?

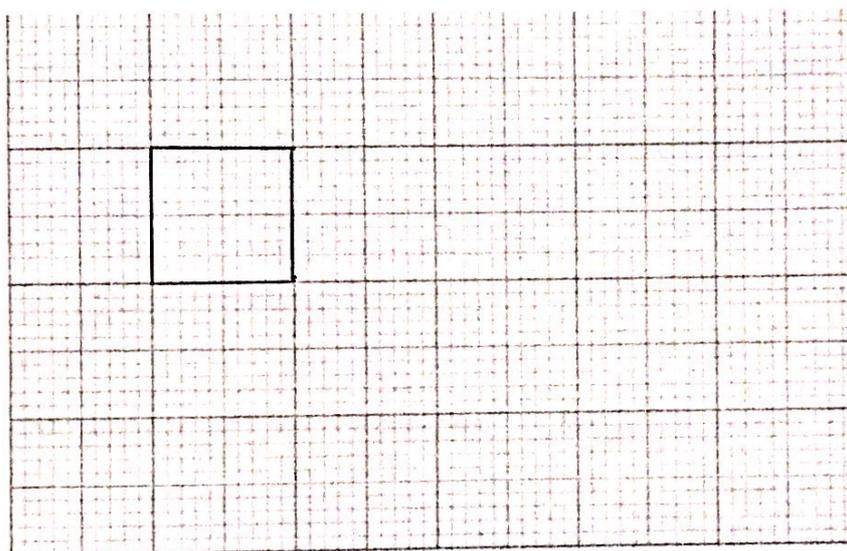
$$\frac{15 + 24 + 16 + 18 + 21}{5} = 18.8$$

$$\underline{18.8}$$

(1 mark)

Q2

Draw a square with sides of 2cm



(1 mark)

Q3

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

$$4 \frac{1}{8}$$

(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

60

(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

540cm = 5.4m, not 54m.

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

$$£ 2500 \times 1.05 = £ 2625$$

£ 2625

(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

$$5 + 12.2 \times 1.5 =$$

$$5 + 18.30 =$$

$$£ 23.30$$

£ 23.30

(3 marks)

Q9 A student receives two loans. One is for £9153 and the other is for £8944.

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 $£9153 + £8944 \approx £18000$

$$\frac{1}{2} + \frac{1}{4} = \frac{3}{4}$$

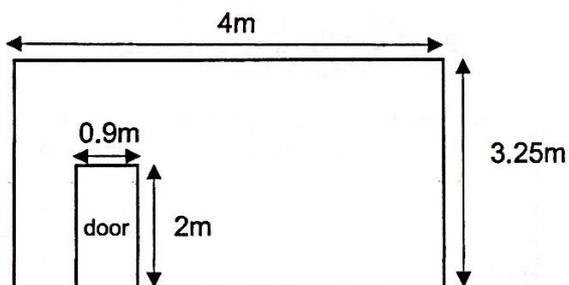
$$\frac{3}{4} \times £18000 = £13500$$

$$£18000 - £13500 = £4500$$

£ 4500

(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:



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

$$4 \times 3.25 = 13 \text{ m}^2$$

$$2 \times 0.9 = 1.8 \text{ m}^2$$

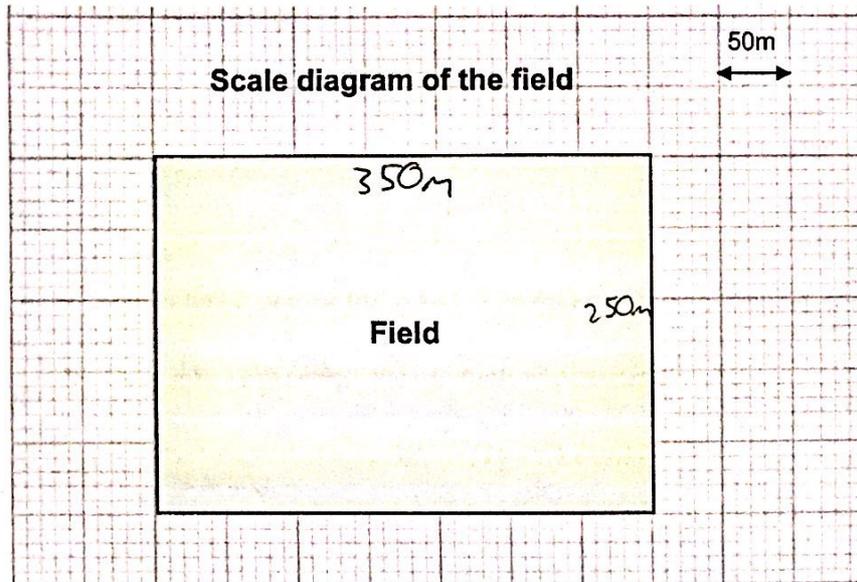
$$13 - 1.8 = 11.2 \text{ m}^2$$

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

$$350 + 250 = 600 \text{ m.}$$

$$600 \times 2 = 1200 \text{ m.}$$

$$1200 \times 5 = 6000 \text{ m}$$

$$6 \text{ km.}$$

_____ 6 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

$$\begin{aligned} \text{Adults: } & 3484 \times 18 = 62712 . \\ \text{Child: } & 5062 - 3484 = 1578 \quad 1578 \times \pounds 12 = 18936 . \\ & 62712 + 18936 = 81648 . \\ & 85\% \text{ go to event so } 15\% \text{ go to community .} \\ & 81648 \times 0.15 = \pounds 12247.20 \quad \pounds \underline{12247.20} . \end{aligned}$$

(5 marks)

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

The diagram shows the dimensions of the tub

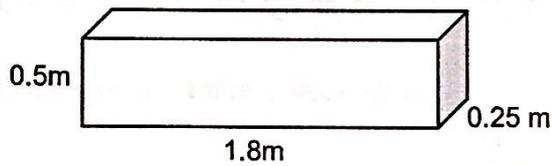


Diagram not to scale

They buy compost in 50 litre bags

$1000 \text{ litres} = 1\text{m}^3$

How many bags of compost must they buy?

Show all your working

$$0.5 \times 1.8 \times 0.25 = 0.225 \text{ m}^3 \\ = 225 \text{ litres}$$

$$225 \div 50 = 4.5$$

Need 5 bags.

Number of bags 5

(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

0-10 :	6, 8, 6, 3, 7	5
11-20 :	15, 12, 17, 18, 11, 18	6
21-30 :	24, 29, 24, 22, 25, 27, 28, 27	9

(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.

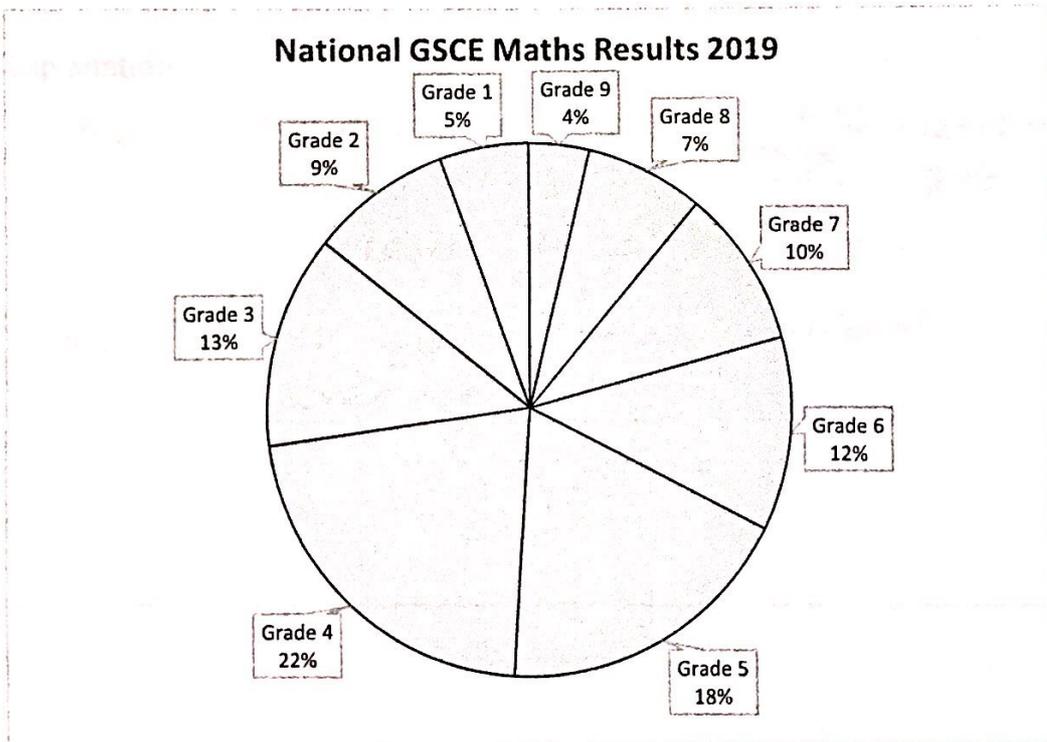
The school has a target for 65% of their students to achieve a Grade 4 or higher in their Maths GCSE.

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.

$$\text{Total students} = 7 + 11 + 18 + 22 + 27 + 55 + 27 + 22 + 11 = 200$$

$$\text{Above grade 4} = 7 + 11 + 18 + 22 + 27 + 55 = 140$$

$$\frac{140}{200} = \frac{70}{100} = 70\%$$

So the target was ~~not~~ met.

Target met? (tick one box) Yes No

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

Explanation

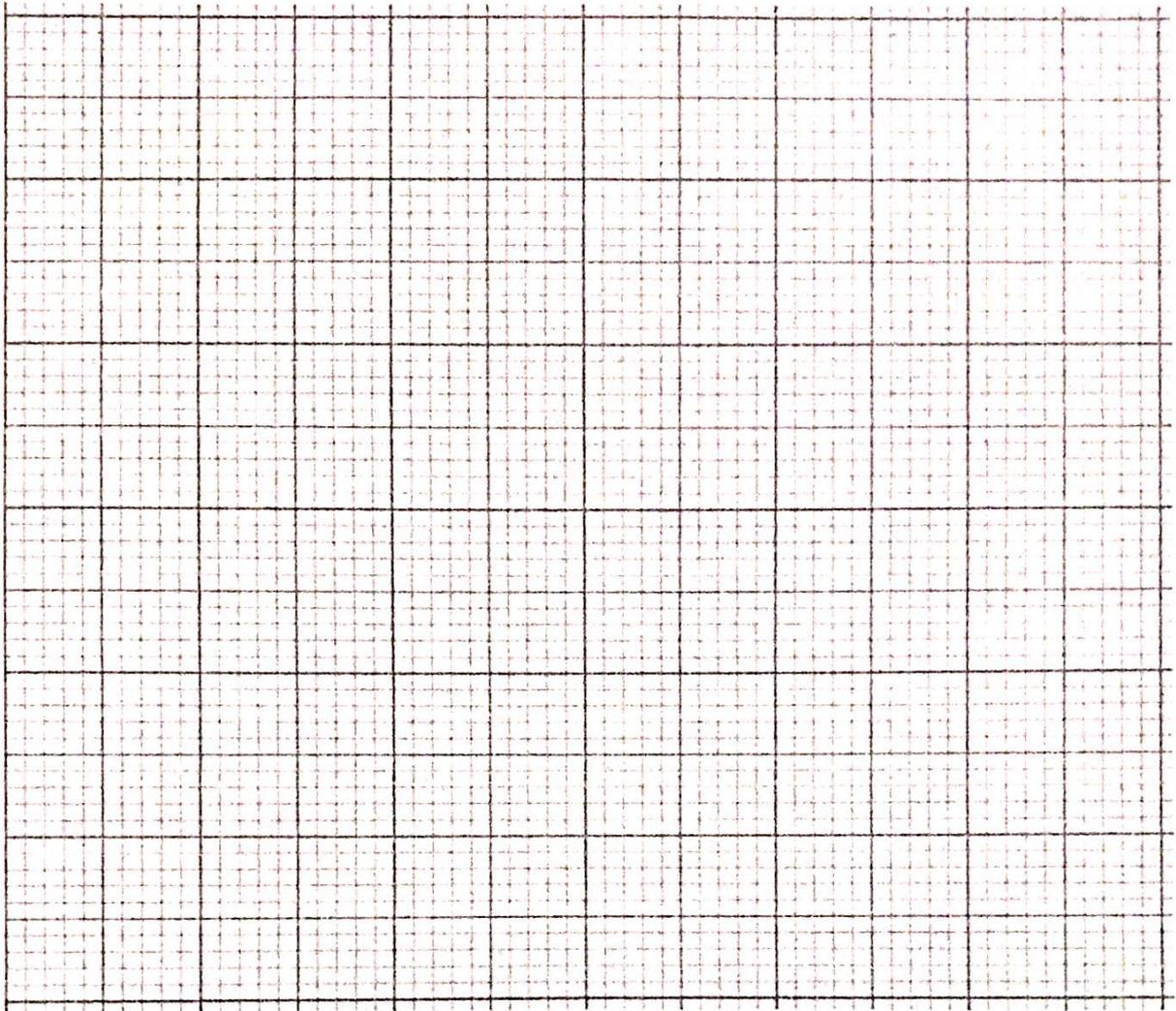
$$\begin{aligned} \text{National average } & 4 + 7 + 10 + 12 + 18 + 22 \\ & = 73\% \text{ go to} \end{aligned}$$

level 4 or above.

So school worse than national average.

(6 marks)

Spare graph paper for Question 14



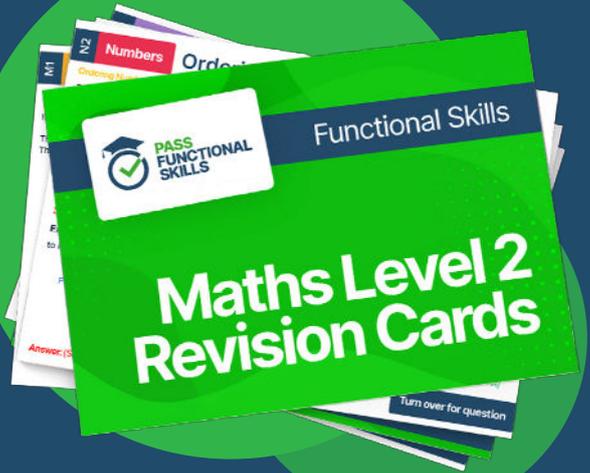
End of Section 2



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