AQA

Functional Skills Level 1 MATHEMATICS

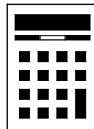## Paper 2 Calculator

Tuesday 28 February 2023   Afternoon   Time allowed: 1 hour 30 minutes

Materials
For this paper you must have:
- a calculator
- mathematical instruments.

Instructions
- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.
- State the units of your answer where appropriate.

Information
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 60.
- You may ask for more answer paper, graph paper and tracing paper. These must be tagged securely to this answer book.

Advice
In all calculations, show clearly how you work out your answer.

For Examiner's Use	
Question	Mark
1–7	
8	
9	
10	
11	
TOTAL	

Section A

Answer **all** questions in the spaces provided.

1 A fair, ordinary dice is rolled.

Circle the probability of rolling the number 4

[1 mark]

$$\frac{1}{6} \qquad \frac{1}{4} \qquad \frac{4}{6} \qquad \frac{1}{2}$$

2 Convert 2460 centimetres to metres.

[1 mark]

Answer _____ metres

3 You are facing North East.

You turn **clockwise** to face South East.

Write down the angle of turn.

[1 mark]

Answer _____ °

4 Work out $76^2 - 47^2$

[2 marks]

Answer _____

5 Write these fractions in order of size, starting with the **largest**.

[2 marks]

$$\frac{2}{3} \qquad\qquad \frac{3}{5} \qquad\qquad \frac{5}{8}$$

Answer _____ , _____ , _____

Turn over ▶

6   Work out the range of these numbers.

[2 marks]

20   15   9   10   26   14   18

Answer _____

7 Here is an L-shape.
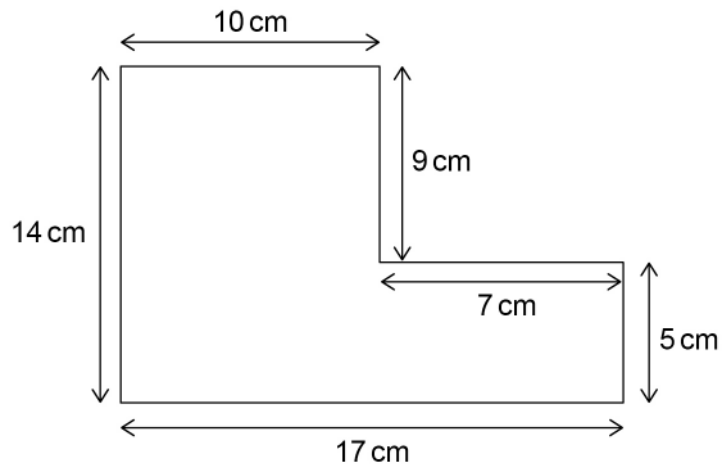
Not drawn accurately

Work out the area of the L-shape.

[3 marks]

_____

_____

_____

_____

_____

_____

_____

Answer _____ cm^2

12

Turn over ▶

Section B

Answer **all** questions in the spaces provided.

8 **Building Company**

8 (a) Kim works as a tiler for a building company.

> She is paid a normal hourly rate of £26.50 from Monday to Friday.
>
> She is paid **double** the normal hourly rate on Saturday.
>
> She does **not** work on Sunday.

Here are the hours she worked from Monday to Friday one week.

Day	Number of hours
Monday	6
Tuesday	6
Wednesday	7.5
Thursday	7.5
Friday	6
Saturday	

In total, Kim was paid £1060 that week.

How many hours did she work on Saturday?

[6 marks]

Answer _____ hours

8 (b) The company uses this formula to work out the charge for a job.

Charge = £45 **plus** £28 per hour the job takes

The job will take 11 hours.

Will the charge be **less than** £350?
You **must** show your working.

[3 marks]

_____

_____

_____

_____

_____

_____

_____

_____

Question 8 continues on the next page

Turn over ▶

8 (c)   The diagram shows how much petrol is in the tank of Kim's van.

Kim takes the van to the petrol station to fill the tank.

The tank holds 64 litres when full.

Petrol costs £1.45 per litre.

Kim has £70 to pay for the petrol.

Does she have enough money to fill the tank with petrol?
You **must** show your working.

[4 marks]

13

9 **Cycling**

Talik likes cycling.

9 (a) Talik wants to buy a new bike.

There are two ways he can pay for the bike.

```
Road bike

Option 1

Cash price £570

or

Option 2

Pay 10% of the cash
price and 12
payments of £45.75
```

Talik says,

"If I use option 1, rather than option 2, I will save **more than** £35"
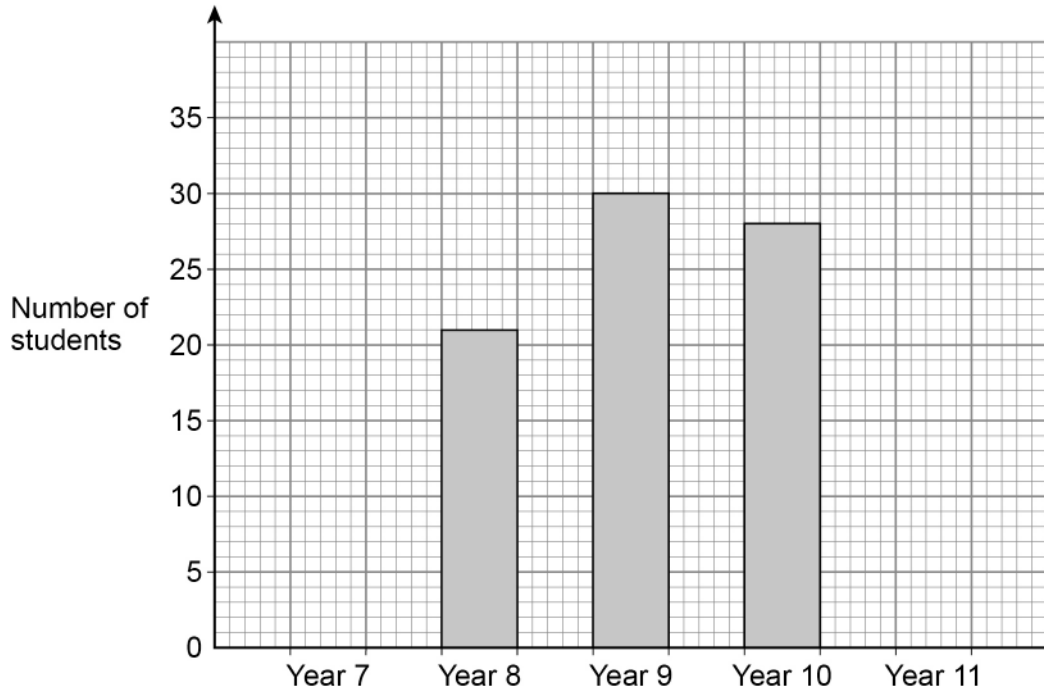
Is he correct?
You **must** show your working.

[5 marks]

Question 9 continues on the next page

Turn over ▶

9 (b) Talik finds information about the number of students who cycle to his school.

In total, 115 students cycle to school.

The bar chart shows the information for some of the year groups.

The information for Year 7 and Year 11 is missing.

Twice as many Year 11 students as Year 7 students cycle to school.

Complete the bar chart.

[6 marks]

11

10   **Wedding**

Linda is planning a wedding.

10 (a)   Linda is planning where to place the tables for the wedding meal.

All the tables are rectangular.

She wants

- a gap of at least 1 metre all around each table

- **one main table** measuring 5 metres by 1 metre

- **two guest tables** each measuring 2 metres by 1 metre

- **one cake table** measuring 1 metre by 0.5 metres.

The grid below is a scale drawing of the room.

Use the grid to draw and **label** a possible plan for the tables.

[5 marks]

Scale: ⬚ represents a 0.5 metre by 0.5 metre square
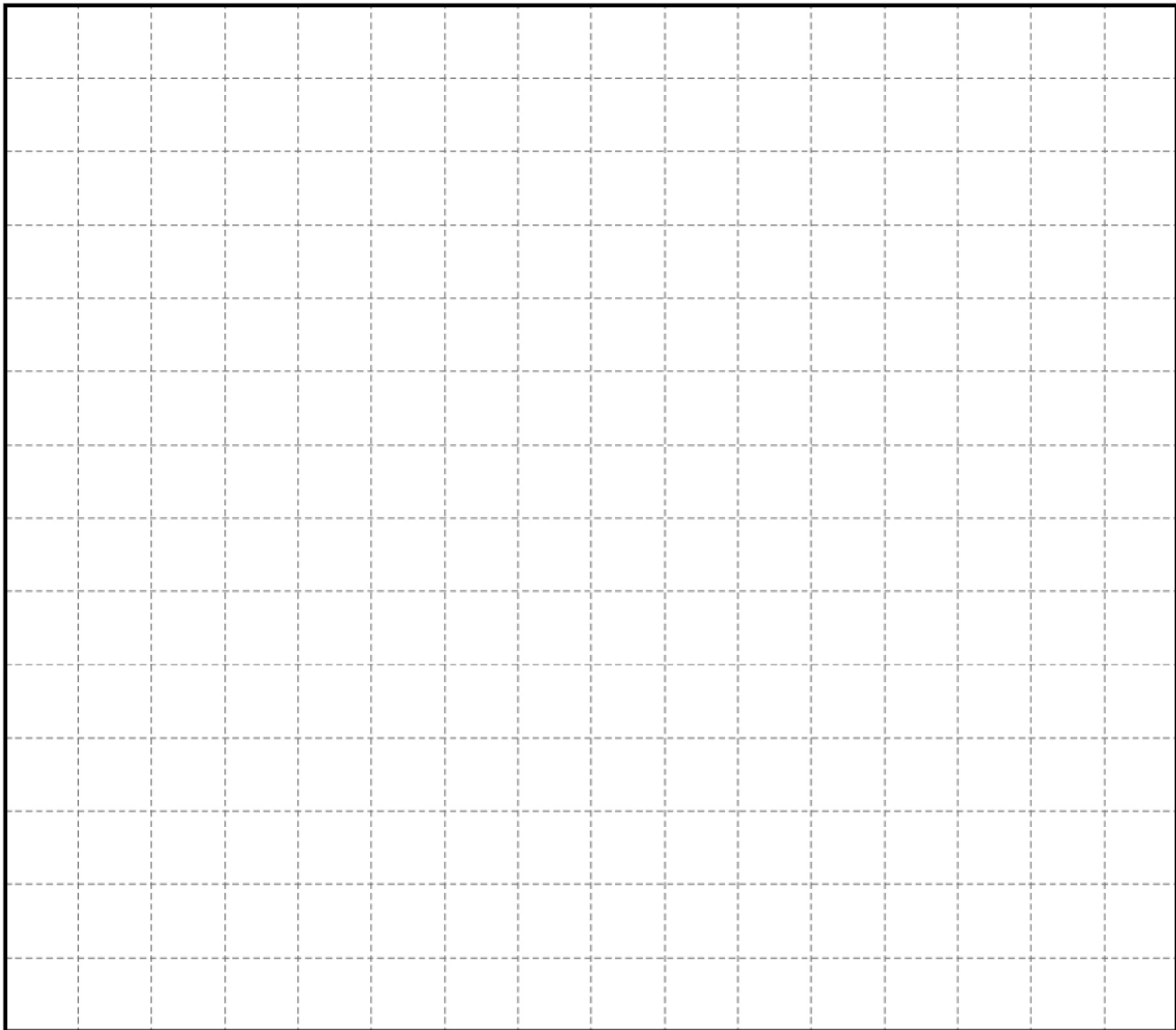
Question 10 continues on the next page

Turn over ▶

10 (b) Linda is making a bouquet of flowers for the bride.

She will use pink roses and cream roses in the ratio pink : cream = 1 : 3

Linda will put 5 **pink** roses in the bouquet.

She has 21 **cream** roses.

How many cream roses will she have left after making the bouquet?
You **must** show your working.

[2 marks]

Answer _____

10 (c) Linda is baking the wedding cake.

She finds this recipe for a cake to serve 20 people.

> **Wedding cake – serves 20**
>
> 200 grams flour
>
> 850 grams dried fruit
>
> 180 grams butter
>
> 180 grams sugar
>
> 6 eggs

Linda wants to make enough cake for **30** people.

She has plenty of flour, sugar and eggs.

She has

       1 kilogram of dried fruit

       140 grams of butter.

Work out how much **more** dried fruit and butter she needs.

[6 marks]

dried fruit _____ grams

butter _____ grams

13

Turn over ▶

11 **School Playground**

Steve works as a caretaker in a primary school.

11 (a) Steve wants to buy a climbing frame for the school playground.

Pupils in Years 4, 5 and 6 have been fundraising to pay for it.

The climbing frame will cost £950

The table shows how much money they have raised so far.

Class	Amount Raised (£)
Year 4	325
Year 5	234
Year 6	282

The teachers help by baking and selling cakes.

They sell 62 cakes for £1.20 each.

All the money from selling the cakes is added to the fundraising total.

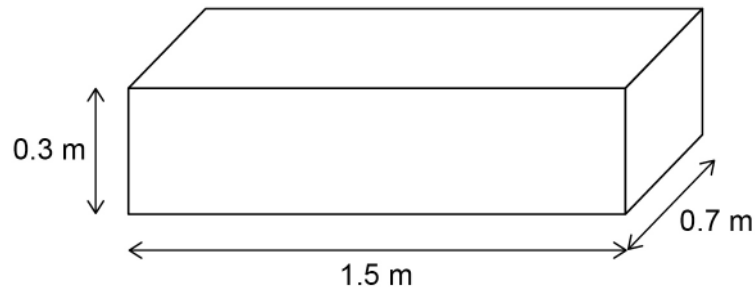How much **more** money do they need to raise to buy the climbing frame?

[4 marks]

Answer £ _____

11 (b) Steve built a new sand pit for the school playground.

The sand pit is in the shape of a cuboid.

0.3 m

0.7 m

1.5 m

Steve needs to buy bags of sand to fill the sand pit to the top.

Each bag contains $0.05 \, m^3$ of sand.

How many bags of sand does Steve need to buy?
You **must** show your working.

[3 marks]

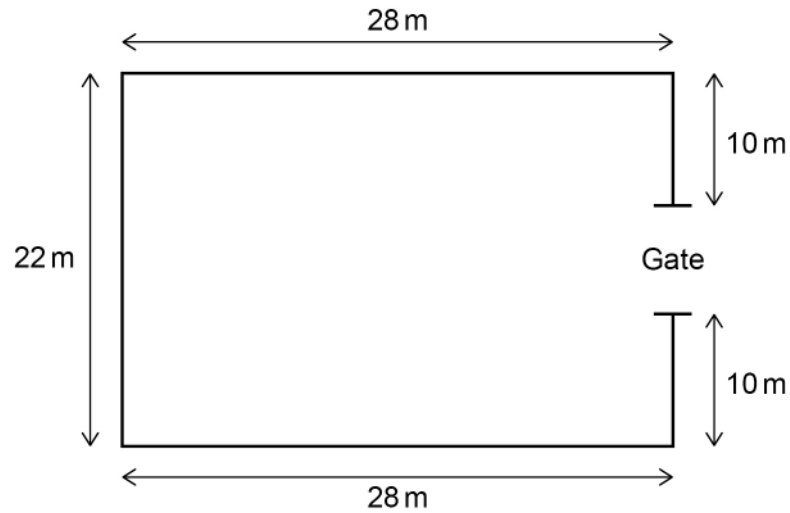Answer

Question 11 continues on the next page

Turn over ►

11 (c) Steve is going to replace the fence panels around the playground.

Here is a plan view of the playground.

Not drawn accurately

Steve will keep the old gate and buy new fence panels.

Fence panels are 2 m wide.

Each 2 m panel costs £32.46

Steve says,

"The total cost of the fence panels will be **less than** £1600"

Is he correct?
You **must** show your working.

[4 marks]

END OF QUESTIONS

11

There are no questions printed on this page

DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED

Question number	Additional page, if required. Write the question numbers in the left-hand margin.

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Do not write outside the box

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