AQA

Functional Skills Level 1 MATHEMATICS

Paper 2 Calculator
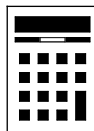
Monday 9 January 2023   Afternoon   Time allowed: 1 hour 30 minutes

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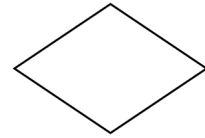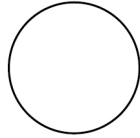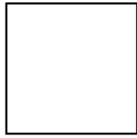In all calculations, show clearly how you work out your answer.

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

Section A

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

1 Circle the shape that has only **one** line of symmetry.

[1 mark]

2 Put the following decimals in order, starting with the **largest**.

[2 marks]

2.45   2.035   2.6   2.702

_____

_____

_____

Answer _____ , _____ , _____ , _____

3 Write in digits the number three thousand and seventy one

[1 mark]

Answer _____

4 You are facing East.

You turn 180°

What direction are you facing now?

[1 mark]

Answer _____

5 Complete the table to show equivalent fractions, decimals and percentages.

[2 marks]

Fraction	Decimal	Percentage
	0.65	65%
$\frac{7}{10}$	0.7	

Turn over ►

6 Here are 20 values.

6 8 4 2 5 6 5 1 1 8

3 2 1 10 12 8 9 3 7 1

Complete the grouped frequency table with the tallies and frequencies.

[2 marks]

Value	Tally	Frequency
1–3		
4–6		
7–9		
10–12		

7   Here is an L-shape.

Not drawn
accurately
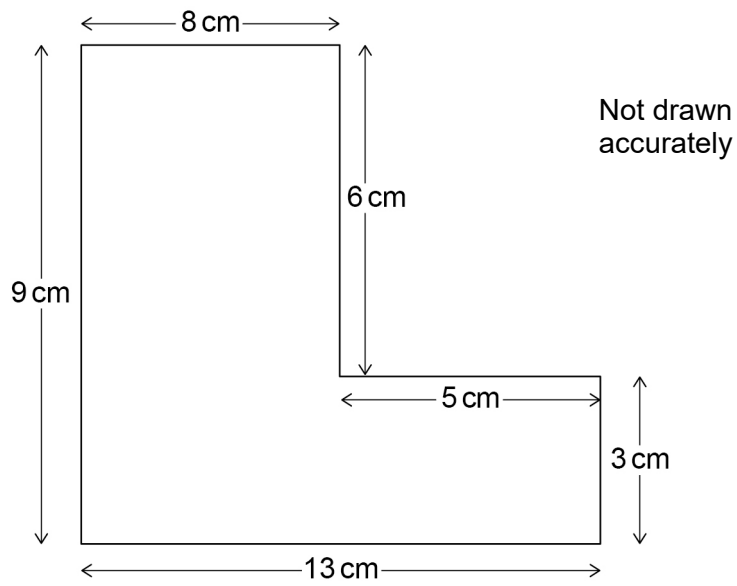
Work out the area of the L-shape.

[3 marks]

_____

_____

_____

_____

_____

_____

Answer _____ cm^2

12

Turn over for Section B

Turn over ▶

0 5

Section B

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

8   **A Party**

Gemma is planning a birthday party for her daughter.

8 **(a)**   Gemma will hire a hall for the party.

<div style="border:1px solid black; text-align:center;">

Hall for hire

£15.75 per hour

plus £32 cleaning charge

</div>

Gemma will hire the hall so that she has

      30 minutes to set up before the party

      the party from 4.30 pm to 6.30 pm

      30 minutes to tidy up after the party.

Is £80 enough to pay for the hall hire and the cleaning charge?
You **must** show your working.

[4 marks]

8 (b) Gemma orders pizzas for the party.

Each pizza has 8 slices.

Each person will get 3 slices.

How many pizzas should Gemma order for 30 people?

[3 marks]

Answer _____

Question 8 continues on the next page

Turn over ▶

8 (c) Gemma makes a fruit drink for the party.

She uses this recipe.

> Mix cranberry juice and orange juice in the ratio
>
> cranberry : orange = 1 : 4

Gemma wants to make 280 millilitres of the drink for each person.

She has 2 litres of cranberry juice.

She has plenty of orange juice.

Does Gemma have enough cranberry juice to make the drink for 30 people?
You **must** show your working.

[4 marks]

11

9   **Pets**

9 (a)   The weight of Nina's dog has increased from 5.4 kg to 6.1 kg

Nina says,

"His weight has increased by **more than** 15%"

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

[3 marks]

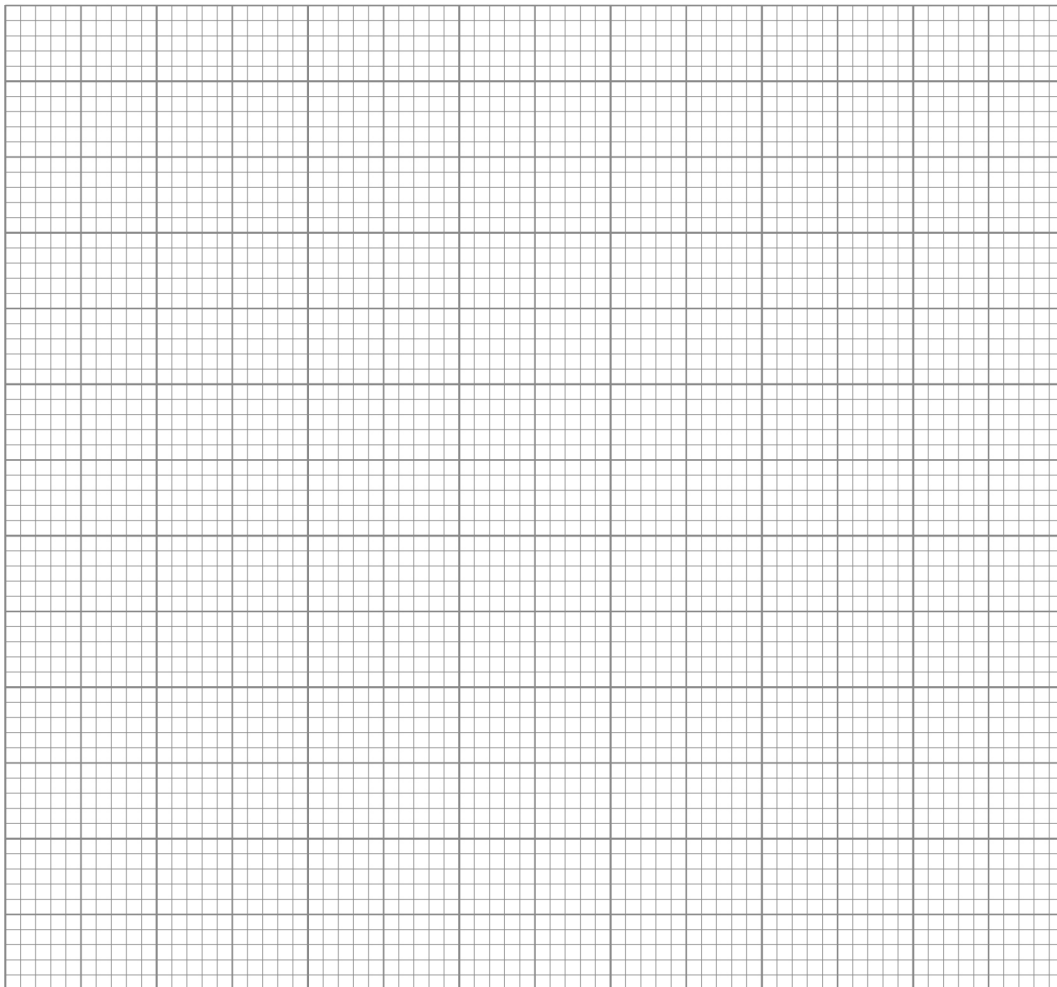**Question 9 continues on the next page**

Turn over ▶

9 (b)   Jack is a vet.

He collects this information about 20 pets that he sees.

Type of Pet	Number of Pets
Dog	10
Cat	6
Rabbit	4

Draw a suitable diagram to show this information.
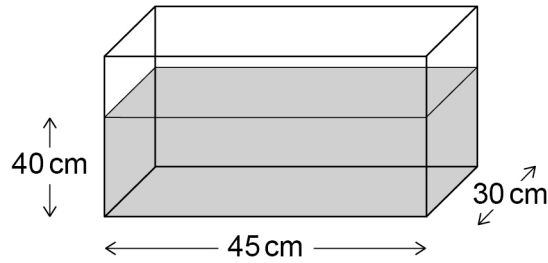
[4 marks]

9 (c) Milly keeps fish.

Her tank is a cuboid with length 45 cm and width 30 cm

The depth of the water in the tank is 40 cm

Milly needs to add 2 millilitres of a chemical for each litre of water in the tank.

$1000 \, cm^3 = 1$ litre

How many millilitres of the chemical should Milly add to her tank?

[4 marks]

Answer _____ millilitres

11

10   **The Cafe**

10 (a)   Marsha owns a cafe.

The cafe is open 7 days a week.

Marsha needs a part-time assistant each day.

> She can afford to pay the new assistant £168 per week.
>
> The hourly rate of pay is £9.60
>
> She will employ the assistant for the same number of hours each day.

For how many hours can Marsha employ the new assistant each day?
Give your answer as a decimal.

[3 marks]

Answer _____ hours

10 (b)   This is part of the menu from the cafe.

<div align="center">

MENU

Coffee	£2.99
Tea	£2.25
Toasted Sandwich	£3.80

</div>

There is a special offer on toasted sandwiches.

Special Offer

Toasted Sandwiches

Buy one get one half price.

A customer orders

> 1 coffee
>
> 1 tea
>
> 2 toasted sandwiches.

He pays with a £20 note.

How much change should he get?

[4 marks]

Answer £ _____

Question 10 continues on the next page

Turn over ▶

10 (c) This table shows the number of customers who visited the cafe in one week.

Mon	Tues	Wed	Thurs	Fri	Sat	Sun
45	64	74	41	83	120	77

Marsha says,

"The mean number of customers per day that week was **more than** 75"

Is Marsha correct?

You **must** show your working.

[3 marks]

10

11 **Cake company**

Nico sells cupcakes in boxes.

11 (a) Nico wants to make an individual cupcake box with a lid out of a sheet of card.

The cupcake box will be a cube of side length 8 cm

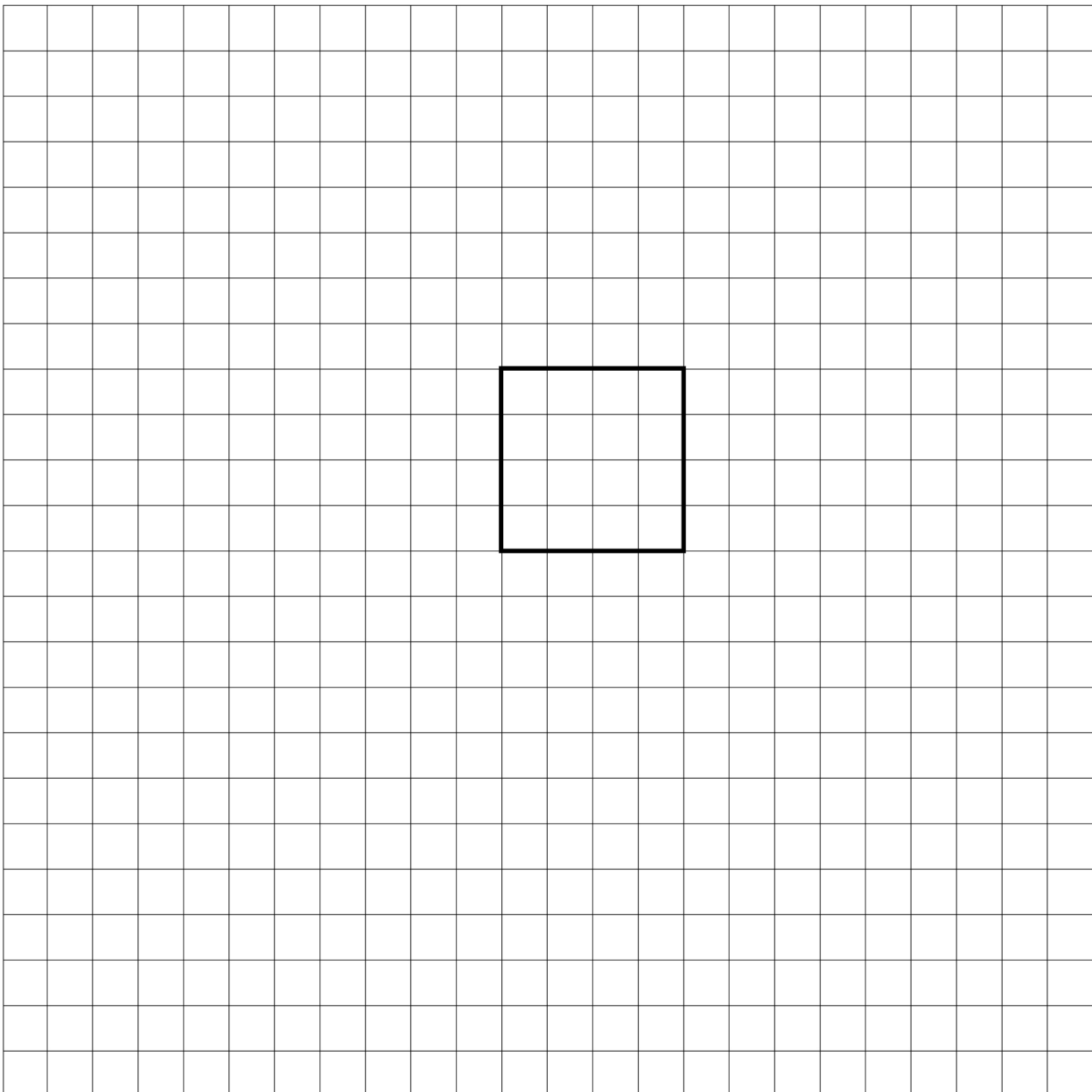He will cut out a net of the cube to make the box.

The square grid shows the piece of card he wants to use for each box.

Draw a net for the box to check that this piece of card is large enough.

One part of the net has been drawn for you.

[3 marks]

Scale: ☐ represents a 2 cm by 2 cm square

Turn over ▶

11 (b) The table shows the number of boxes of cupcakes in one order from a customer.

Size of cupcake box	Price per box (£)	Number of boxes ordered
Small	3.15	5
Medium	10.75	4
Large	15.45	2

Nico charges a handling fee for this order.

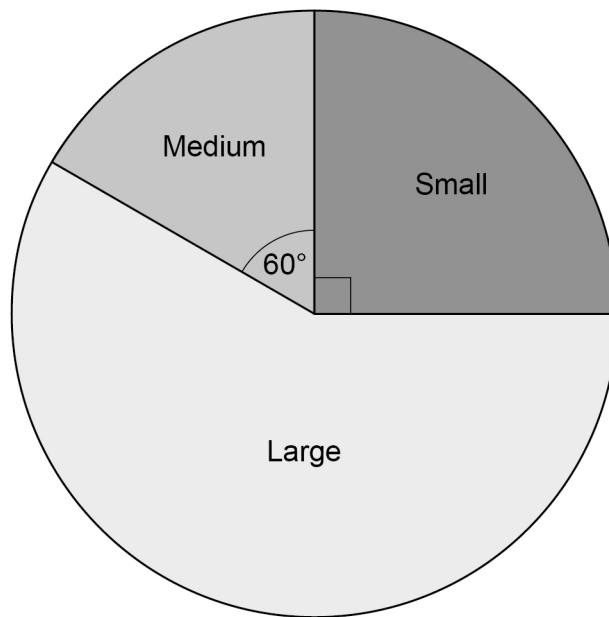Handling fee = 20p per box + £1.50

Work out the **total** amount, including the handling fee, that this customer has to pay.

[5 marks]

Answer £ _____

11 (c) The pie chart represents the income from the sale of boxes of cupcakes last year.

The **total** income from the sale of boxes of cupcakes was £16 200

Nico says,

"The income from **large** boxes of cupcakes was **more than** £10 000"

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

[4 marks]

_____

_____

_____

_____

_____

_____

_____

_____

Question 11 continues on the next page

Turn over ▶

11 (d)   Nico opens a new bank account.

He puts £295 into the account.

5% interest is added to the account each year.

After one year Nico takes £269 from the account to buy a new mixer.

How much is left in the account?

[4 marks]

Answer £ _____

END OF QUESTIONS

16

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

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