## AQAE

Surname $\qquad$
Forename(s) $\qquad$
Centre Number $\qquad$
Candidate Number $\qquad$
Candidate Signature $\qquad$
I declare this is my own work.

## Functional Skills Level 1 MATHEMATICS

Paper 2 Calculator
8361/2

Monday 9 January 2023
Afternoon

Time allowed: 1 hour 30 minutes

At the top of the page, write your surname and forename(s), your centre number, your candidate number and add your signature.
[Turn over]

## 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 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.

DO NOT TURN OVER UNTIL TOLD TO DO SO

## 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

$\qquad$ , $\qquad$ , $\qquad$ , $\qquad$

3 Write in digits the number three thousand and seventy one [1 mark]

Answer $\qquad$
[Turn over]


4 You are facing East.
You turn $180^{\circ}$
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 |  |

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 |
| :--- | :--- | :--- |
| $1-3$ |  |  |
| $4-6$ |  |  |
| $7-9$ |  |  |
| $10-12$ |  |  |

[Turn over]


7 Here is an L-shape.
The diagram is not drawn accurately.


Work out the area of the L-shape. [3 marks]
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer $\mathrm{cm}^{2}$
[Turn over]
$\square$

## 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.

HALL FOR HIRE

$£ 15.75$ per hour
plus $£ 32$ cleaning charge

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]

## [Turn over]

## BLANK PAGE

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]
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer
[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 $\mathbf{2 8 0}$ 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]
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
[Turn over]
$\square$

## 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]
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
[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 |

On the opposite page, draw a suitable diagram to show this information. [4 marks]

[Turn over]

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.
$1000 \mathrm{~cm}^{3}=1$ litre
How many millilitres of the chemical should Milly add to her tank? [4 marks]
$\qquad$
$\qquad$
$\qquad$
[Turn over]
$\square$

## 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]
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## 23

Answer
hours
[Turn over]

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

## MENU

Coffee £2.99
Tea £2.25
Toasted Sandwich $£ 3.80$

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]
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer £ $\qquad$
[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]
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
[Turn over]
$\square$

## 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, on the opposite page, shows the piece of card he wants to use for each box.

On the opposite page, 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: $\square$ represents a $\mathbf{2 c m}$ by $\mathbf{2 c m}$ square

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[Turn over]

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

| SIZE OF <br> CUPCAKE BOX | PRICE PER <br> BOX (£) | NUMBER OF <br> BOXES <br> ORDERED |
| :--- | :--- | :--- |
| Small | 3.15 | 5 |
| Medium | 10.75 | 4 |
| Large | 15.45 | 2 |

Nico charges a handling fee for this order.
Handling fee $=\mathbf{2 0}$ p per box $+£ 1.50$
Work out the TOTAL amount, including the handling fee, that this customer has to pay. [5 marks]
$\qquad$
$\qquad$
$\qquad$

## Answer £

[Turn over]

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 $£ 16200$

Nico says,
"The income from LARGE boxes of cupcakes was MORE THAN £10 000"

## Is he correct?

You MUST show your working. [4 marks]

[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]
$\qquad$
$\qquad$
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$\qquad$

## Answer £

END OF QUESTIONS
$\qquad$
$\qquad$

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| For Examiner's Use |  |
| :---: | :---: |
| Question | Mark |
| $1-7$ |  |
| 8 |  |
| 9 |  |
| 10 |  |
| 11 |  |
| TOTAL |  |

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