## AQA

Please write clearly in block capitals.

Centre number |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |

Candidate number


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

## Functional Skills Level 1 MATHEMATICS

## Paper 2 Calculator

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).

| For Examiner's Use |  |
| :---: | :---: |
| Question | Mark |
| $1-8$ |  |
| 9 |  |
| 10 |  |
| 11 |  |
| 12 |  |
| TOTAL |  |

- 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.


Which angle measures $30^{\circ}$ ?

Answer

2 How many lines of symmetry does the equilateral triangle have?


Circle your answer.

2
3
6


Write down the probability that the number on the card is less than 2
[1 mark]

Answer $\qquad$

5 Put the following decimals in order, starting with the largest.
0.219
0.25
0.2
0.206

Answer $\qquad$ , $\qquad$ , $\qquad$ ,
6 Round 9.3583 to 2 decimal places $\quad$ [1 mark]

## Answer

$\qquad$

7 Increase £126.80 by 15\%
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer £ $\qquad$
8 Complete the table for the diagrams below. [2 marks]

## C



| Description | Diagram letter |
| :---: | :---: |
| Net of a cube-shaped box with a lid |  |
| Net of a cube-shaped box without a lid |  |

Turn over for the next section


Ross wants to make 3 litres of soup.
He already has 500 g of carrots.
Carrots are sold in 750 g packs.
How many packs of carrots does he need to buy?
You must show your working.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer $\qquad$
9 (b) Ross has a container in the shape of a cuboid.
Here are the dimensions of the container.

| length | width | height |
| :---: | :---: | :---: |
| 23 cm | 15 cm | 11 cm |

Ross says,
"The container is large enough to hold the 3 litres of carrot soup."
Is Ross correct?
You must show your working.
1 litre $=1000 \mathrm{~cm}^{3}$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Question 9 continues on the next page

9 (c) Ross draws a pie chart to represent the soup he sold one week.


Ross sold 8 litres of lentil soup that week.
He sold the chicken soup for $£ 3.49$ per litre.
How much did he receive that week from selling chicken soup?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer £

## 10 Flooring

Nikki wants to sand and varnish the wooden floors in her house.

10 (a) Nikki wants to hire a sanding tool for 3 days.
She sees adverts for sanding tool hire at two companies.

| Tool hire depot |
| :---: |
| $£ 16$ per day |
| 3 days or more, |
| $20 \%$ off the total cost |

Tool hire depot<br>$£ 16$ per day<br>3 days or more, $20 \%$ off the total cost

## EZ hire company

$£ 15$ per day
Hire for 3 days, 3rd day half price

Which company has the cheaper hire cost for 3 days?
You must show your working.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

10 (b) The diagram shows a floor Nikki is going to varnish.


Nikki needs 500 ml of varnish for each square metre of floor.
How much varnish does she need for this floor?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer $\qquad$ ml

10 (c) | Nikki will take |
| :--- |
| • 45 minutes to sand the floor |
| • 20 minutes to clean the floor |
| - $1 \frac{1}{2}$ hours to varnish the floor. |
| Nikki starts to sand the floor at 10.15 am |
| Will she have finished the work by 1 pm ? |
| You must show your working. |

- 45 minutes to sand the floor
- 20 minutes to clean the floor
- $1 \frac{1}{2}$ hours to varnish the floor.

Nikki starts to sand the floor at 10.15 am
Will she have finished the work by 1 pm ?
You must show your working.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Turn over for the next question

## 11 Garden Centre

Zola works for a garden centre.

11 (a) Zola asks 20 of the customers how many times they have visited in the past year.
She records the results in a tally chart.
The tally chart is shown, but four of the cells have not been filled in.

| Number of visits | Tally | Frequency |
| :---: | :---: | :---: |
| $1-3$ | HH II\\| | 9 |
| $4-6$ | HH I |  |
| $7-9$ |  |  |
| $10-12$ |  | Total $=20$ |

Draw a suitable diagram to represent the number of visits to the garden centre.

| , |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\cdots$ |

11 (b) Zola buys plants for her own garden.
She pays staff discount prices for the plants.
The table shows information about the plants she buys.

| Plants | Normal price | Staff discount price |
| :---: | :---: | :---: |
| A rose bush | $£ 19.95$ | $£ 8.50$ |
| A pack of tulip bulbs | $£ 10.50$ | $£ 6.99$ |
| A lavender plant | $£ 4.30$ | $£ 2.50$ |
| A fruit tree | $£ 48$ | $£ 22.50$ |

Zola says,
"The total cost with the discount prices is less than half of the total cost with the normal prices."

Is she correct?
You must show your working.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

| 12 | Electric Car <br> Kofi wants to buy an electric car. <br> 12 (a) <br> Kofi can buy the car using Option A or Option B. <br> Option A <br> One payment of $£ 32549$ <br> Pay $10 \%$ of $£ 32549$ <br> and <br> 48 monthly payments of $£ 638$ |
| :--- | :--- |

In total, how much more would Option B cost than Option A?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer £ $\qquad$

12 (b) Kofi asks an electrician to install a charging point outside his house for his car. The electrician works out the cost of installation using this formula.

Cost of installation $=$ Price of parts $+£ 52.50 \times$ Number of hours worked

The price of the parts is $£ 794.85$
Here are the hours the electrician worked.

| Monday | 9 am to 1 pm |
| :--- | :--- |
| Tuesday | 3 pm to 5 pm |

In total, how much is the cost of the installation?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer £ $\qquad$

12 (c) Kofi buys the car.
The battery in the car can hold 80 kWh of energy.
One morning the battery is $\frac{1}{4}$ full.


The car uses 1 kWh of energy to travel 3.2 miles.
Kofi's work is 28 miles from his home by car.
Is there enough energy left in the battery for Kofi to drive to work and back?
You must show your working.
[4 marks]
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## END OF QUESTIONS






## Copyright information

For confidentiality purposes, all acknowledgements of third-party copyright material are published in a separate booklet. This booklet is published after each live examination series and is available for free download from www.aqa.org.uk.

Permission to reproduce all copyright material has been applied for. In some cases, efforts to contact copyright-holders may have been unsuccessful and AQA will be happy to rectify any omissions of acknowledgements. If you have any queries please contact the

Copyright © 2022 AQA and its licensors. All rights reserved.

