AQA
Surname
Other Names
Centre Number
Candidate Number
Candidate Signature
I declare this is my own work.
Functional Skills Level 1
MATHEMATICS
Paper 2 Calculator 8361/2

Time allowed: 1 hour 30 minutes
At the top of the page, write your surname and other names, your centre number, your candidate number and add your signature.
[Turn over]


## 2

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

## 4

## SECTION A

Answer ALL questions in the spaces provided.

1 Circle the SMALLEST value. [1 mark]
0.084
0.71
0.069
0.53

## 5

2 Four angles meet at a point.


Which angle is OBTUSE?
Circle your answer. [1 mark]
a
b
c
d
[Turn over]


3 Convert 3.2 litres to millilitres. [1 mark]

Answer
millilitres

4 A fair, ordinary dice is rolled.
Write down the probability of rolling the number 3 [1 mark]
Answer

## 7

5 Here is a scale.

1 cm represents 8 km
What does a length of 2.5 cm represent? [2 marks]
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer

## [Turn over]

## 8

6 Here are six values.
10
6
4
12
5
17

Work out the mean. [3 marks]
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer

# 7 Decrease 1600 by 20\% [3 marks] 

Answer
[Turn over]
12

## SECTION B

Answer ALL questions in the spaces provided.

8 HOLIDAY TO PORTUGAL

Sally is booking a family holiday to Portugal.

8 (a) The table shows the cost of flights and villa rental.

| Flights | $£ 872$ |
| :--- | :--- |
| Villa rental | $£ 1980$ |

Sally will also hire a car.

> Hire cost $=£ 130+£ 35 \times$ number of days hired

# Sally has $£ 3500$ to pay for flights, villa rental and car hire. 

Does she have enough to hire a car for 14 days?

## You MUST show your working.

 [4 marks]
## 8 (b) The holiday is for 14 days.

## Sally wants to have 200 euros spending money PER DAY.

She already has 192 euros left from another holiday.

The exchange rate is $£ 1=1.16$ euros

She says,
"Changing $£ 2200$ into euros will be enough."

Is she correct?
You MUST show your working. [3 marks]
$\qquad$
$\qquad$

## [Turn over]

8 (c) The family have to travel to the UK airport at the start of the holiday.

At the end of the holiday, they have to travel from the UK airport to their home.

They can travel by taxi or drive.

| TAXI | DRIVE |
| :--- | :--- |
| The airport is <br> Total cost <br> $£ 145$ | Petrol 15 pence per <br> mile |
|  | Parking $£ 85$ |

How much cheaper is it to drive than travel by taxi? [4 marks]
$\qquad$
$\qquad$

15

Answer £
[Turn over]

## 9 COUNTRY ESTATE CYCLE RIDE

James is planning to cycle along the perimeter of a country estate.

## 9 (a) This L-shaped diagram shows his route.

The diagram is NOT drawn accurately.


James will cycle 20 km each hour.
Show that it will take him 3.5 hours to complete the cycle ride. [4 marks]
[Turn over]


## 9 (b) James will drive from home to the country estate.

Here is his plan for the day.

| Drive to the country <br> estate | 40 minutes |
| :--- | :--- |
| Do the cycle ride | 3.5 hours |
| Have a snack | 20 minutes |
| Drive back home | 40 minutes |

He needs to be home by 4 pm
What is the LATEST time that he can leave home to go on the cycle ride? [4 marks]
$\qquad$
$\qquad$

## Answer

## [Turn over]

20

## 9 (c) The estate is made up of a deer park and some land for sheep.

The diagram is NOT drawn accurately.


James says,
"The area of the land for sheep is more than 5 times the area of the deer park."

## 21

## Is he correct?

## You MUST show your working. [4 marks]

22

# 10 CLOTHES COMPANY - MAKING BADGES 

A clothes company makes school uniforms.

They use a machine to make badges for blazers.

The machine usually makes 5000 badges per day.

## 10 (a) One day, the machine makes 5000 badges.

2 of the badges are faulty.
The manager says,
"The probability that a badge is
faulty is $\frac{1}{250}$ "

23

## Is he correct?

## You MUST show your working. [2 marks]

## [Turn over]

# 10 (b) One week, the machine broke down on Wednesday. 

The machine only made 1400 badges that day.

The machine still produced 25000 badges that week.

It produced the SAME number on Thursday as on Friday.

Complete the table, on the opposite page. [3 marks]

25

| Monday | 5000 |
| :--- | :--- |
| Tuesday | 5000 |
| Wednesday | 1400 |
| Thursday |  |
| Friday |  |
| TOTAL | 25000 |

[Turn over]


## 26

## 10 (c) The table shows the costs of making 5000 badges.

| Materials | $17 p$ per badge |
| :--- | :--- |
| Other costs | $£ 265$ |

The company wants to make AT LEAST 40\% profit on the costs.

Work out the minimum price the company should charge per badge.

Give your answer in pence.
[6 marks]
$\qquad$
$\qquad$
$\qquad$
$\qquad$

27
$\qquad$
$\qquad$

Answer

## 28

## 11 HOTEL WORK

Aisha works part-time in a hotel.

11 (a) Aisha is paid an hourly rate of $£ 8.85$ for working any day from Monday to Saturday.

She is paid double this hourly rate for each hour worked on Sunday.

Aisha wants her pay to be at least $£ 230$ next week.

Here are the hours she will work from Monday to Saturday.

| Monday | 5 hours |
| :--- | :--- |
| Thursday | 4 hours |
| Saturday | 7 hours |

29

# Work out the minimum number of hours she needs to work on Sunday. 

You MUST show your working. [6 marks]
[Turn over]

30

## Answer

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## [Turn over]

11 (b) Aisha often receives tips from customers.

One month she receives $£ 72.90$ in tips.

She spends
half of the $£ 72.90$ on clothes one fifth of the $£ 72.90$ on make-up.

She saves the rest.
Work out how much she saves. [4 marks]
$\qquad$
$\qquad$
$\qquad$
$\qquad$

33

## Answer £

## [Turn over]

11(c) The hotel manager wants to know how many nights the guests stay in the hotel.

Aisha collects this information about 20 guests.

| Number of <br> nights | Number of <br> guests |
| :--- | :--- |
| 2 | 11 |
| 3 | 6 |
| 4 | 3 |

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

35


END OF QUESTIONS

36

|  | Additional page, if required. <br> Write the question numbers in the <br> left-hand margin. |
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## 38

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| Question | Mark |
| $1-7$ |  |
| 8 |  |
| 9 |  |
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