A

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]

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

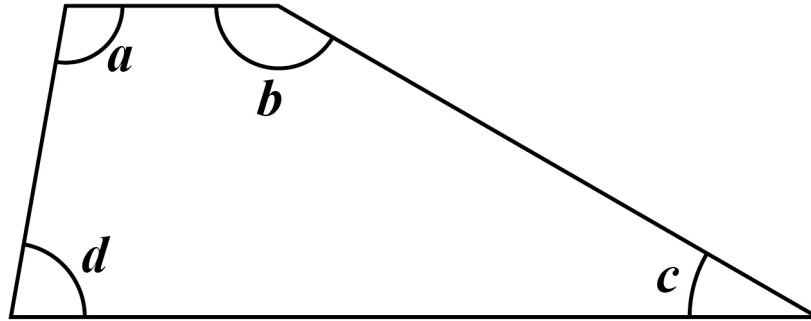**In all calculations, show clearly how you work out your answer.**

DO NOT TURN OVER UNTIL TOLD TO DO SO

SECTION A

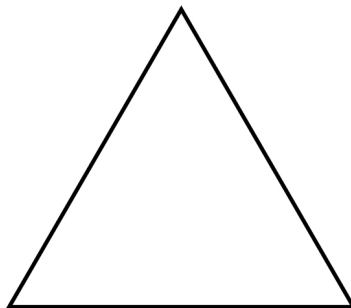**Answer ALL questions in the spaces provided.**

1

Which angle measures 30° ? [1 mark]

Answer _____

2   **How many lines of symmetry does the equilateral triangle have? [1 mark]**
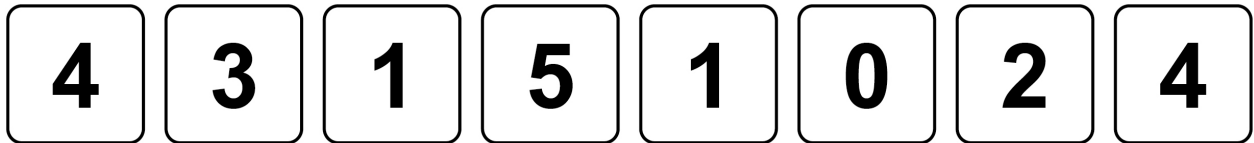

Circle your answer.

1   **2**   **3**   **6**

3 **Write in words   91 072   [1 mark]**

_____

_____

_____

_____

4 **One card is chosen at random from these eight number cards.**

| 4 | 3 | 1 | 5 | 1 | 0 | 2 | 4 |

Write down the probability that the number on the card is LESS THAN 2 [1 mark]

Answer _____

[Turn over]

5 **Put the following decimals in order, starting with the LARGEST. [2 marks]**

0.219   **0.25**   **0.2**   **0.206**

_____

_____

_____

_____

Answer _____ , _____ , _____ , _____

6 **Round   9.3583   to 2 decimal places. [1 mark]**

_____

_____

_____

Answer _____

7   **Increase   £126.80   by 15%   [3 marks]**

_____

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Answer £ _____

[Turn over]

8 Complete the table for the diagrams below.
[2 marks]
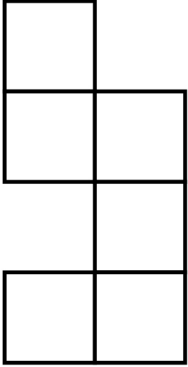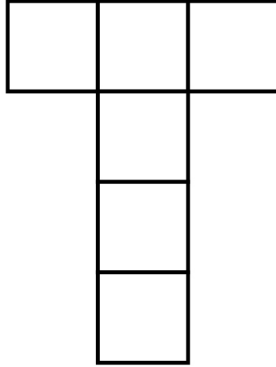
A B C
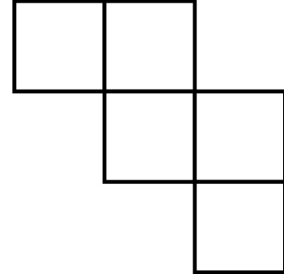
DESCRIPTION	DIAGRAM LETTER
Net of a cube-shaped box with a lid	
Net of a cube-shaped box without a lid	

12

BLANK PAGE

[Turn over]

SECTION B

Answer ALL questions in the spaces provided.

9   SOUP

Ross makes and sells soup.

9 (a)   Ross is making carrot soup.

Here is the recipe.

```
CARROT  SOUP
makes 2 litres

1.2 kg of carrots
1.4 litres of water
3 onions
```

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. [5 marks]

_____

_____

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Answer _____

[Turn over]

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."

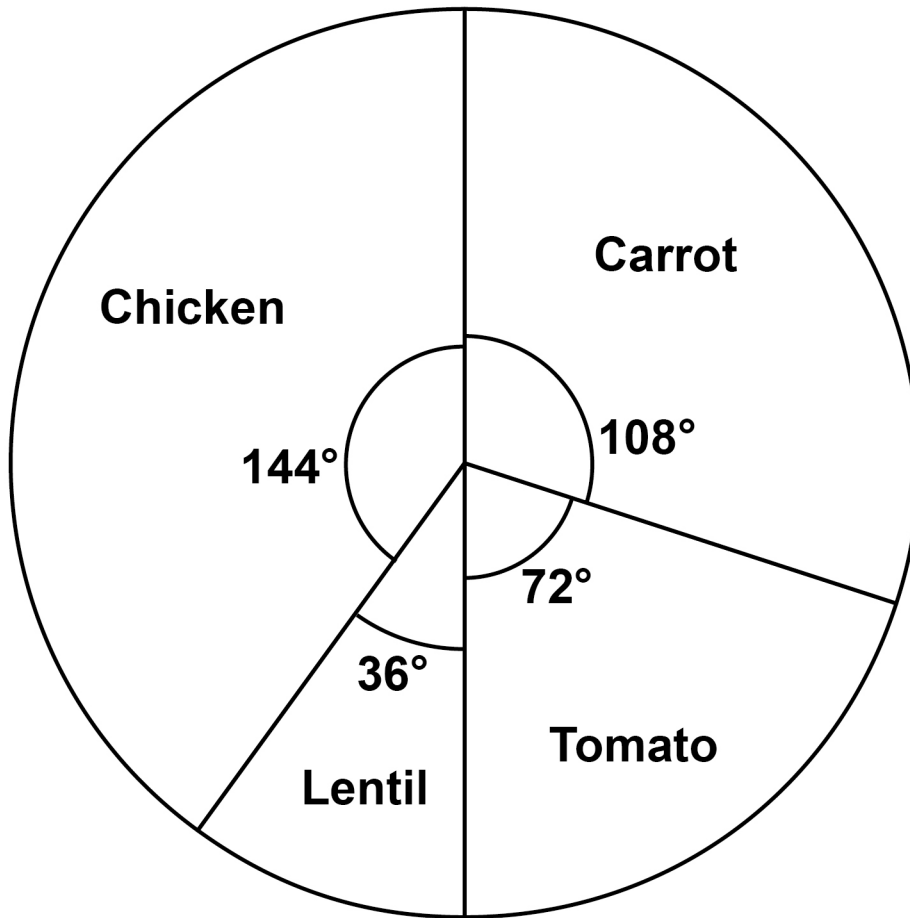Is Ross correct?

You MUST show your working.

1 litre = 1000 cm^3

[3 marks]

_____

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[Turn over]

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

Pie chart with sectors:
- Chicken: 144°
- Carrot: 108°
- Tomato: 72°
- Lentil: 36°

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? [4 marks]

_____

_____

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_____

Answer £ _____

[Turn over]

$$\frac{}{12}$$

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**

> **EZ hire company**
>
> **£15 per day**
>
> **Hire for 3 days,**
> **3rd day half price**

Which company has the cheaper hire cost for 3 days?

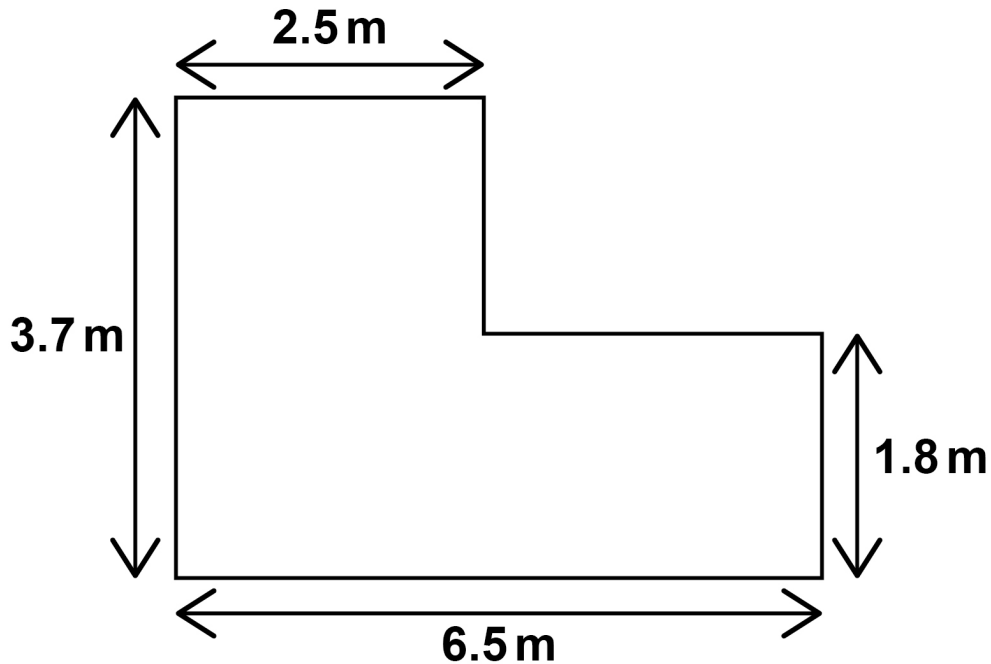**You MUST show your working. [6 marks]**

BLANK PAGE

[Turn over]

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

The diagram is not drawn accurately.

Nikki needs 500 ml of varnish for each square metre of floor.

How much varnish does she need for this floor?
[5 marks]

_____

_____

_____

_____

Answer _____ **ml**

[Turn over]

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. [3 marks]

_____

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14

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.
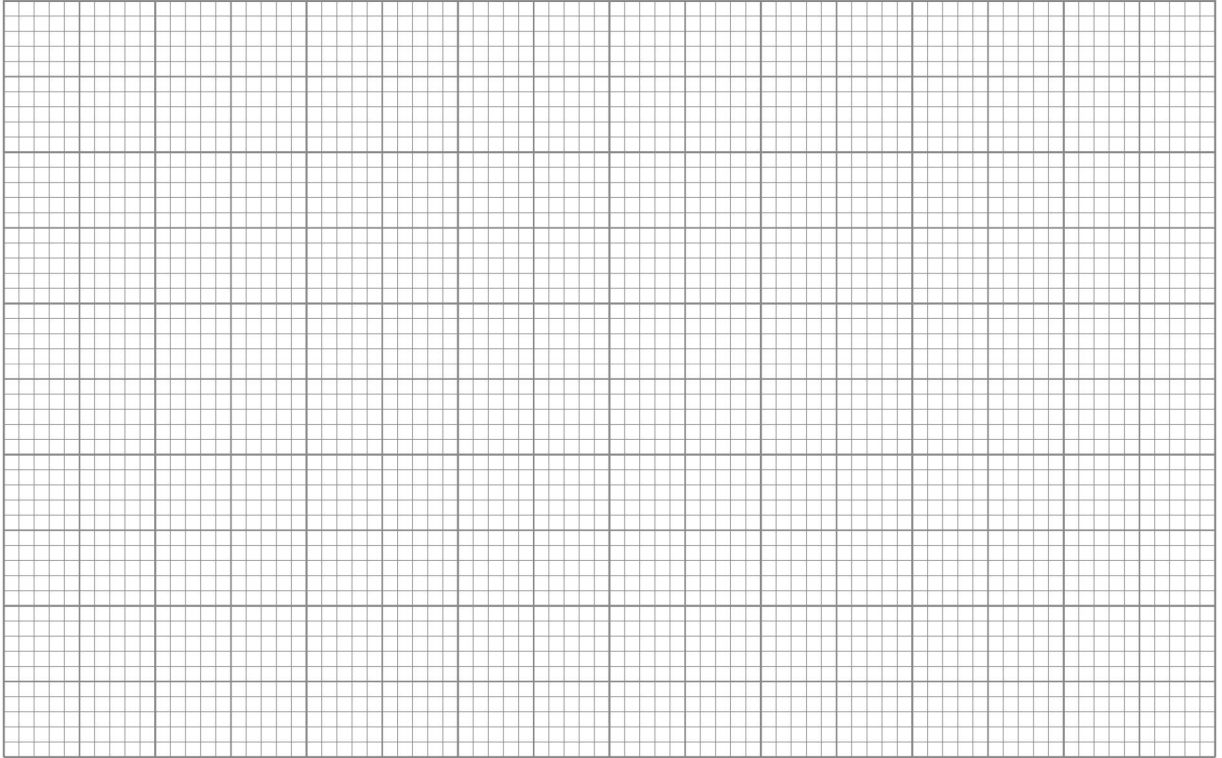
She records the results in a tally chart.

The tally chart is shown, but four of the cells have not been filled in.

Number of visits	Tally	Frequency
1 – 3	ЖЖ IIII	9
4 – 6	ЖЖ I	
7 – 9		
10 – 12		2
		Total = 20

Draw a suitable diagram to represent the number of visits to the garden centre. [6 marks]

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. [4 marks]

10

12   ELECTRIC CAR

Kofi wants to buy an electric car.

12 (a)   Kofi can buy the car using OPTION A or OPTION B.

OPTION A

One payment of £32 549

OPTION B

Pay 10% of £32 549

and

48 monthly payments of £638

In total, how much MORE would OPTION B cost than OPTION A? [5 marks]

_____

_____

_____

_____

Answer £ _____

[Turn over]

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 × 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?
[3 marks]

Answer £ _____

[Turn over]

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.
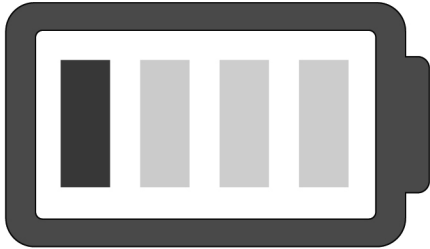
The car uses 1 kWh of energy to travel 3.2 miles.

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]**

END OF QUESTIONS

12

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

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

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