

A



Surname _____

Forename(s) _____

Centre Number _____

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I declare this is my own work.

Functional Skills Level 1

MATHEMATICS

Paper 2 Calculator

8361/2

Monday 15 May 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]

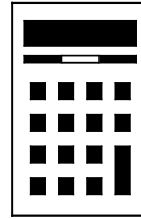


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MATERIALS

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 An angle measures 290°

What type of angle is it?

Circle your answer. [1 mark]

obtuse

reflex

acute

right

2 Write $\frac{1}{5}$ as a decimal. [1 mark]

Answer



3 Halid is facing West.

He makes a quarter turn to the left.

Which direction is he facing now? [1 mark]

Answer _____

4 Work out the range of these numbers. [2 marks]

25 43 56 92 18 31 77

Answer _____

[Turn over]



5 Work out 5% of 340 [2 marks]

Answer _____

6 Here are 16 values.

21 13 24 38 5 19 26 30

23 10 36 25 12 29 9 14

Complete the grouped frequency table with the tallies and frequencies. [2 marks]

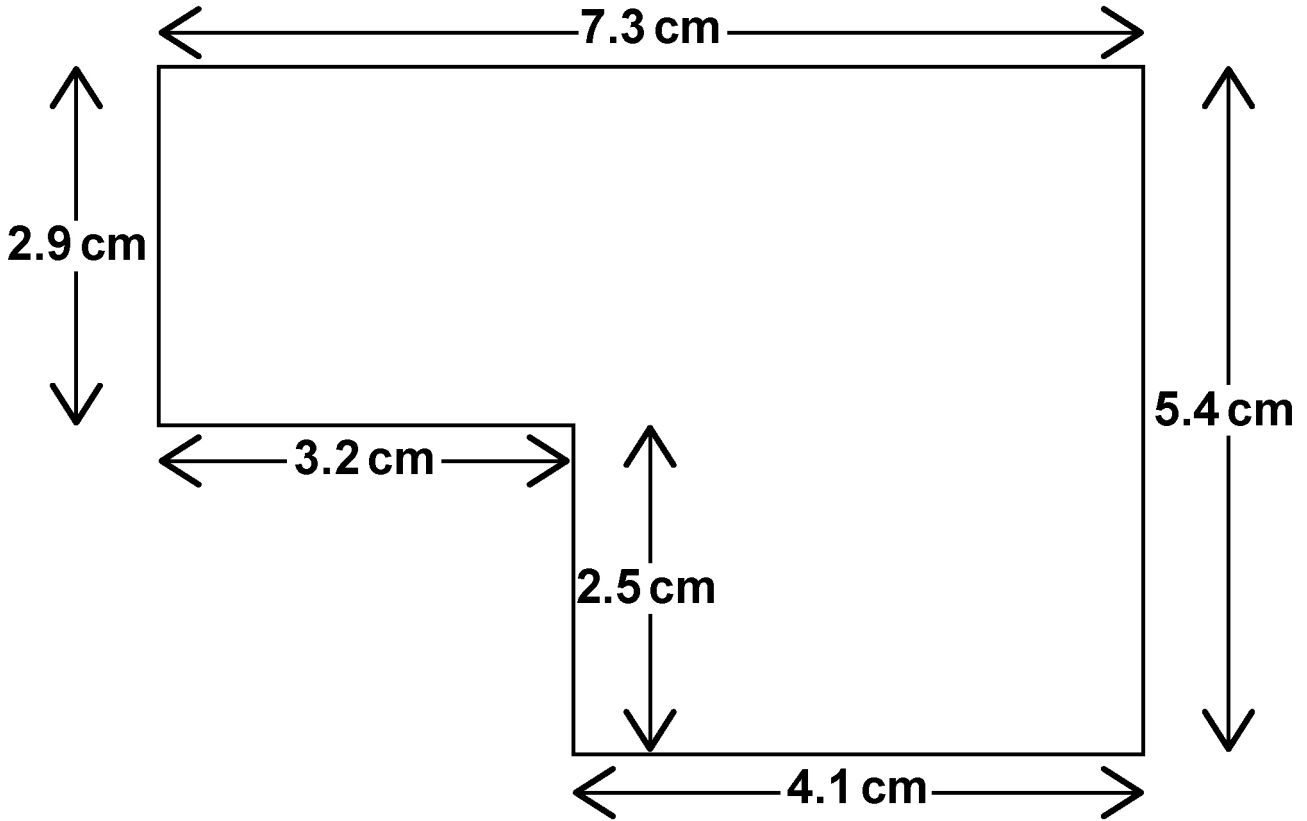
VALUE	TALLY	FREQUENCY
1 – 10		
11 – 20		
21 – 30		
31 – 40		

[Turn over]



7 Here is an L-shape.

The diagram is not drawn accurately.



Work out the AREA of the shape. [3 marks]



Answer _____ cm²

[Turn over]

12



SECTION B

Answer ALL questions in the spaces provided.

8 CYCLING AT THE LAKE

- 8 (a) A group of 4 adults and 3 children are hiring bikes to cycle around a lake.

The table shows the costs of bike hire.

	ELECTRIC BIKE HIRE	STANDARD BIKE HIRE
ADULT	£34.99	£24.99
CHILD	£10.75	£8.75

2 of the adults and the 3 children each hire electric bikes.

The other 2 adults hire STANDARD bikes.

Is £160 enough to hire these bikes?

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



8 (b) At 1.15 pm the group start cycling the 36 kilometres around the lake.

They

- cycle around the lake once**
- cycle 12 kilometres every hour.**

They then have a picnic for 55 minutes.

**At what time do they finish the picnic?
[4 marks]**

Answer _____

[Turn over]



8 (c) The group will travel home by taxi.

The distance home is 16 km

They need one 7-seater taxi.

Here are the prices for two taxi companies.

COMPANY A

Price = £12.75 + £1.50 × the distance in km

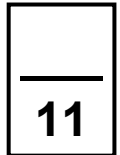
COMPANY B

Fixed price £38

How much cheaper is it for the group to use
COMPANY A than COMPANY B? [3 marks]

Answer £ _____

[Turn over]



9 FRUIT GROWER

Anar grows fruit on her farm.

- 9 (a) Anar is going to divide a field on her farm into 6 m by 4 m rectangles.

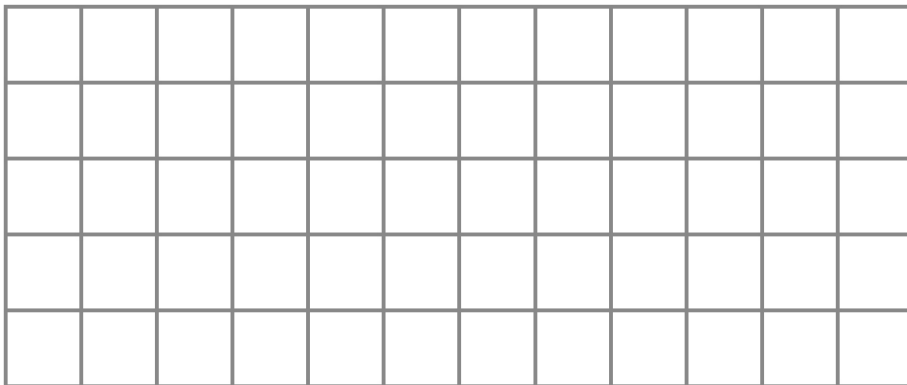
The grid below is a scale drawing of the field.

It is drawn on centimetre square paper.

Use the grid to show that Anar can divide the field into TEN of the 6 m by 4 m rectangles.
[3 marks]

You may practise on this grid.

SCALE: 1 cm represents 2 m



Put your answer on this grid.

SCALE: 1 cm represents 2 m

[Turn over]



- 9 (b) Anar buys some cherry trees and apple trees to plant in another field.

She buys 7 cherry trees.

The ratio of cherry trees to apple trees is 1 : 3

TYPE OF TREE	COST PER TREE
Cherry	£33.25
Apple	£25.79

Work out the TOTAL cost of the trees. [5 marks]



Answer £ _____

[Turn over]



9 (c) Anar has six blueberry bushes.

Here are the weights of blueberries in kilograms she picked from the bushes this year.

3.62 3.82 3.87 3.68 3.95 3.74

Last year she picked an average of 3.72 kilograms of blueberries per bush.

Anar says,

“On average, I have picked a **GREATER** weight of blueberries per bush this year.”

Is she correct?

You **MUST** show your working. [3 marks]

[Turn over]

11



10 SWEET SHOP

Robin sells 'pick and mix' sweets.

10 (a) Indie buys a bag of sweets from Robin.

She chooses only jelly snakes, cola bottles and sour apples.

She picks

47 sweets in total

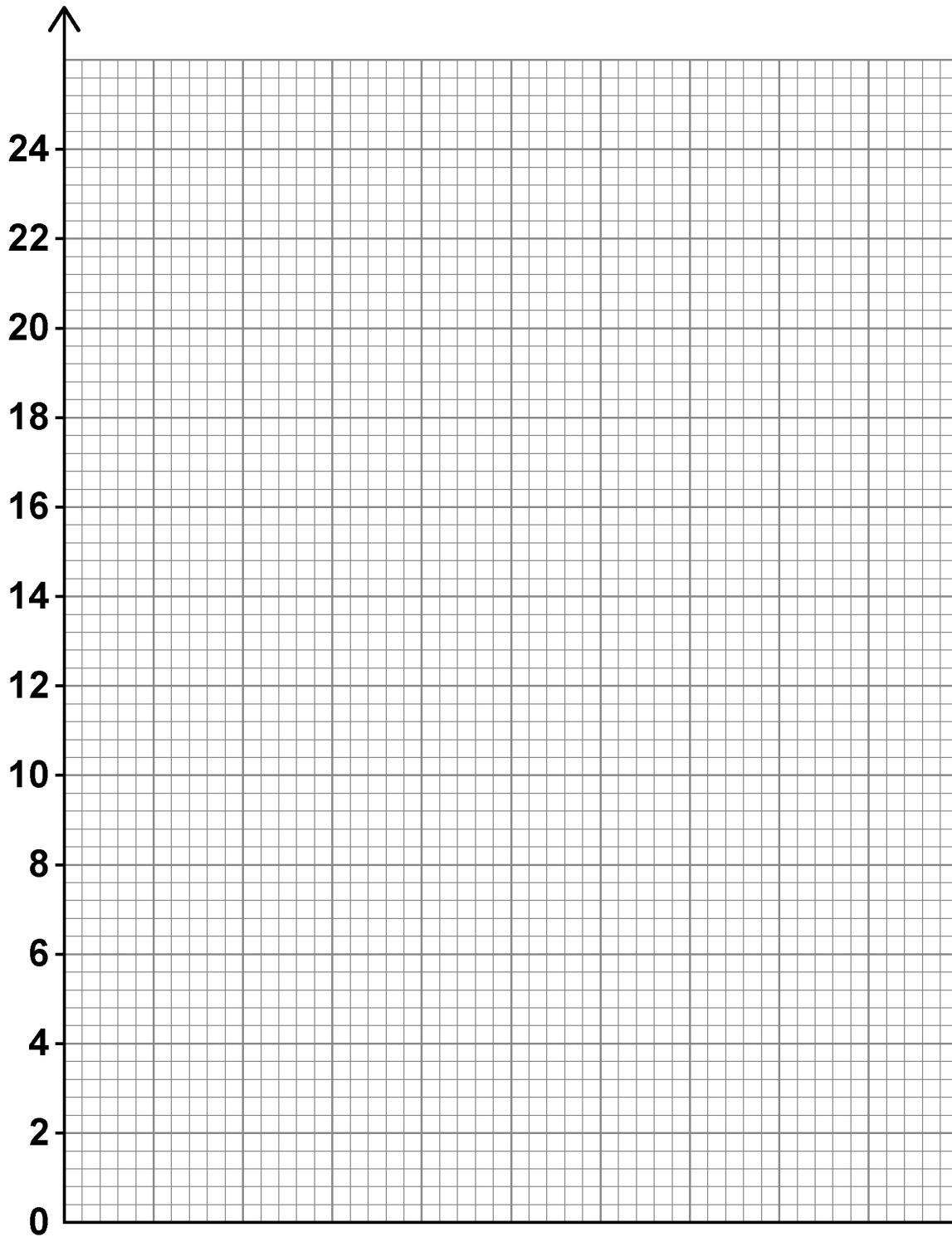
17 jelly snakes

half as many sour apples as cola bottles.

On the opposite page, draw a bar chart on the grid to represent Indie's sweets. [5 marks]



Number of sweets



[Turn over]



10 (b) Robin has 5 jars of sweets.

Each jar contains 1.8 kg of sweets.

Robin makes up some bags of sweets to sell.
Each bag contains 160 g of sweets.

How many bags can he fill? [4 marks]



Answer _____

[Turn over]



10 (c) Robin buys 15 kg of toffees for £120

He sells the toffees in bags.

Each bag contains 1 kg of toffees.

**Robin wants to make a profit of EXACTLY 30%
on the cost of the toffees.**

**How much should he charge for each bag of
toffees? [4 marks]**

Answer £ _____

[Turn over]

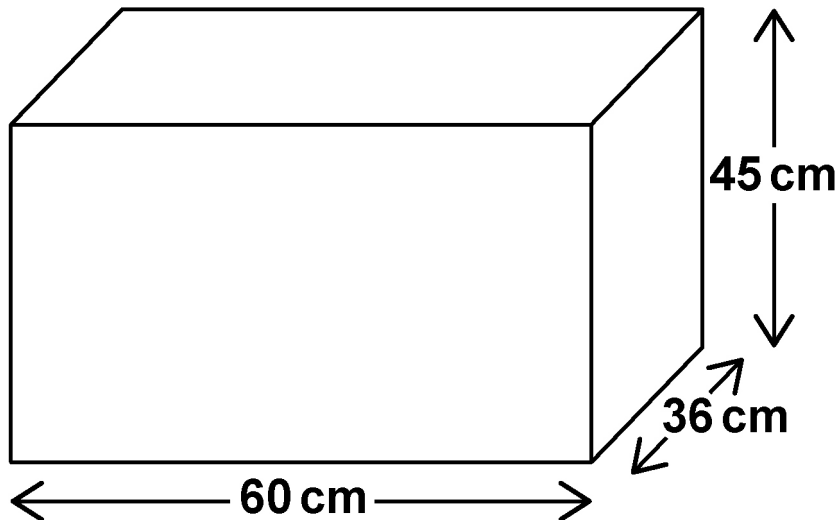
13



11 KEEPING FISH

George keeps fish.

- 11 (a) George wants to buy a new pump for this fish tank.



He has to buy the correct size of pump for the volume of the fish tank.

He finds this information.

SIZE OF PUMP	Small	Medium	Large
VOLUME OF TANK	Less than 55 litres	55 litres to 90 litres	More than 90 litres

$$1 \text{ litre} = 1000 \text{ cm}^3$$



Work out the correct SIZE OF PUMP that George needs for the fish tank.

You MUST show your working. [4 marks]

Answer _____

[Turn over]



11 (b) George wants to buy 6 angelfish.

He sees these adverts from two shops.

SHOP Y

Angelfish

£14.98 each

Buy 5 and get a 6th half price

SHOP Z

Buy 2 angelfish for £26

George wants to pay the lowest possible price for 6 angelfish.

Which of these shops should he choose?

You MUST show your working. [6 marks]

Answer _____

[Turn over]



11 (c) George uses 0.4 g of fish food each day.
He buys a 15 g tub of fish food.
Is this enough for MORE THAN 6 weeks?
You MUST show your working. [3 marks]

END OF QUESTIONS

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

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