

A



Surname \_\_\_\_\_

Forename(s) \_\_\_\_\_

Centre Number \_\_\_\_\_

Candidate Number \_\_\_\_\_

Candidate Signature \_\_\_\_\_

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]

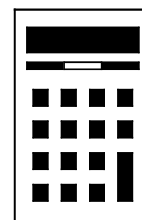


J U N 2 3 8 3 6 1 2 0 1

## **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  $290^\circ$**

**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]

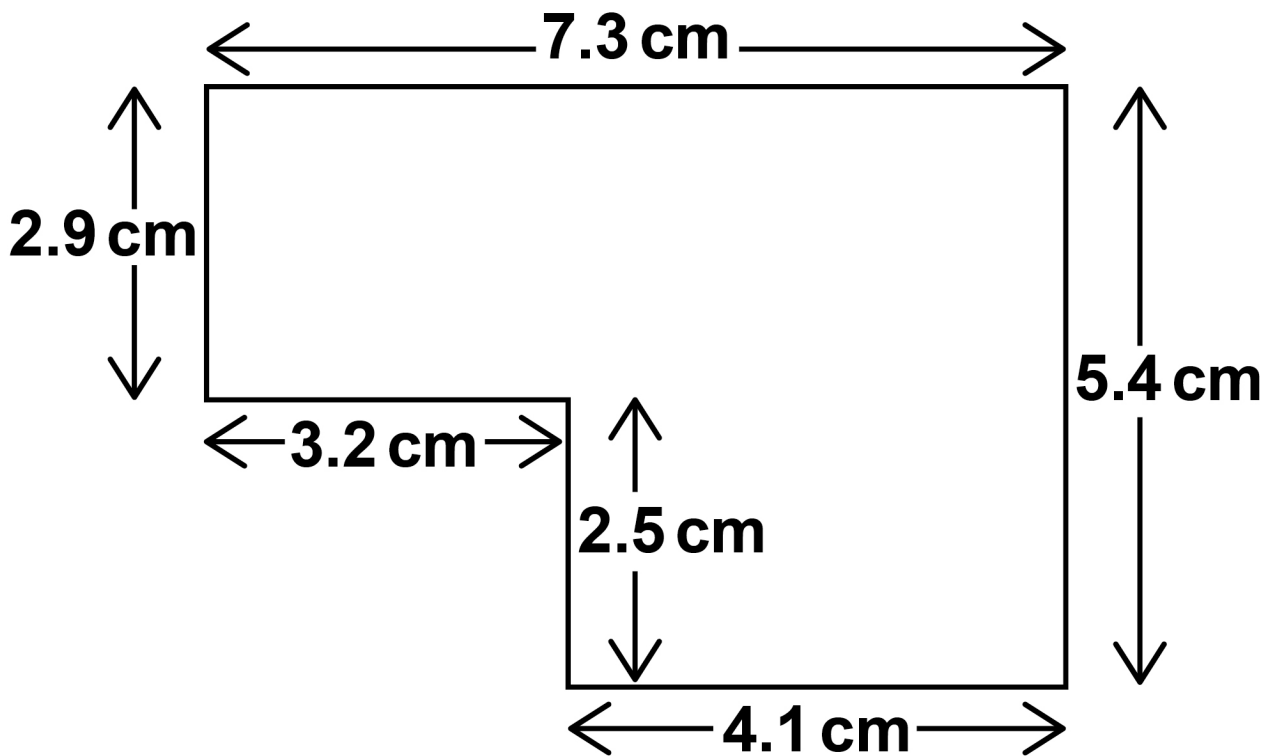
VALUE	TALLY	FREQUENCY
1 – 10		
11 – 20		
21 – 30		
31 – 40		

[Turn over]



7 Here is an L-shape.

The diagram is not drawn accurately.



Work out the AREA of the shape.

[3 marks]

---

---

---





---

---

---

---

---

---

---

---

**Answer** \_\_\_\_\_ **cm<sup>2</sup>**

**[Turn over]**

<hr/>
<b>12</b>



**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.

	<b>ELECTRIC BIKE HIRE</b>	<b>STANDARD BIKE HIRE</b>
<b>ADULT</b>	<b>£34.99</b>	<b>£24.99</b>
<b>CHILD</b>	<b>£10.75</b>	<b>£8.75</b>

**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]**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

**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, on the opposite page, is a scale drawing of the field.**

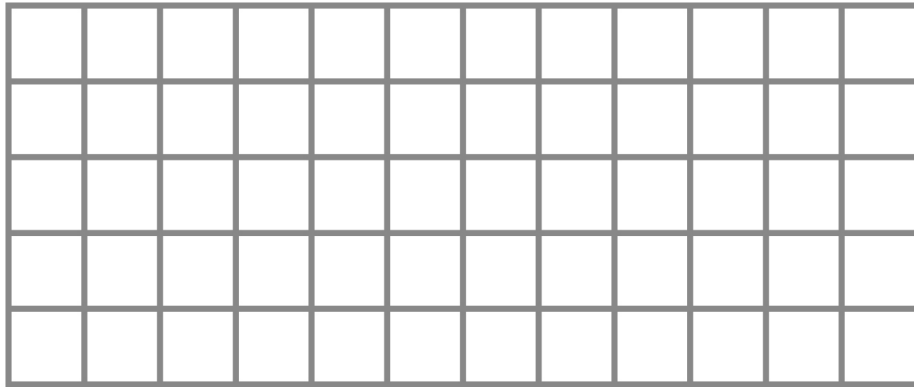
**It is drawn on centimetre square paper.**

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



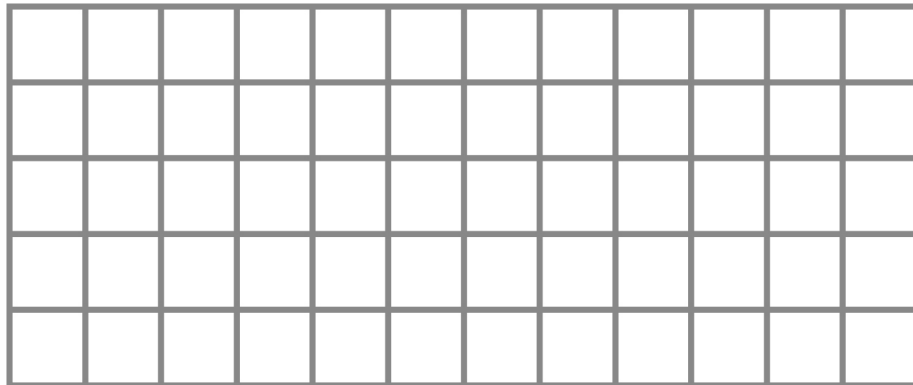
You may practise on this grid.

**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**

<b>TYPE OF TREE</b>	<b>COST PER TREE</b>
<b>Cherry</b>	<b>£33.25</b>
<b>Apple</b>	<b>£25.79</b>

**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]**



**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 page 24, draw a bar chart on the grid to represent Indie's sweets. [5 marks]**

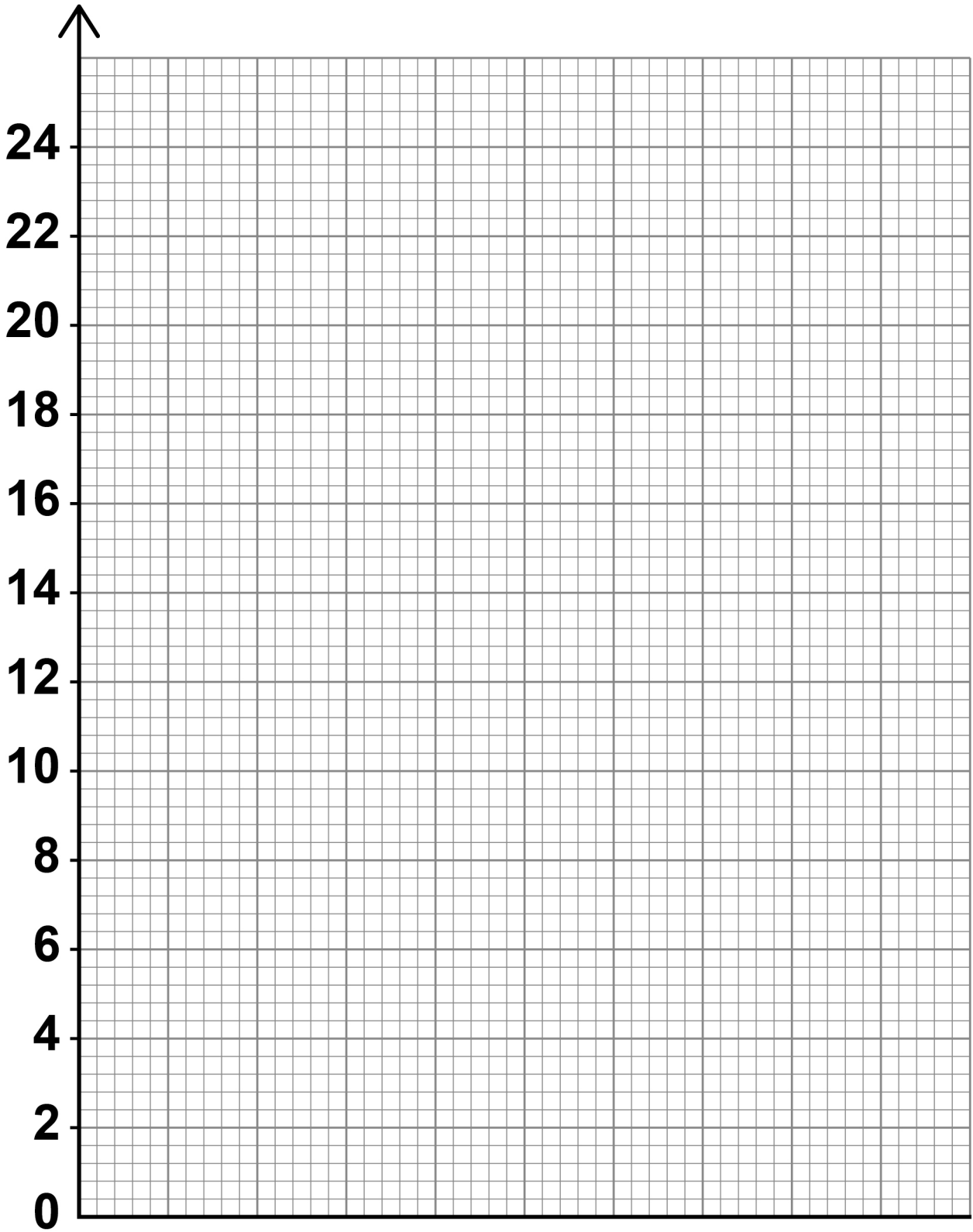


**BLANK PAGE**

**[Turn over]**



# 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]**

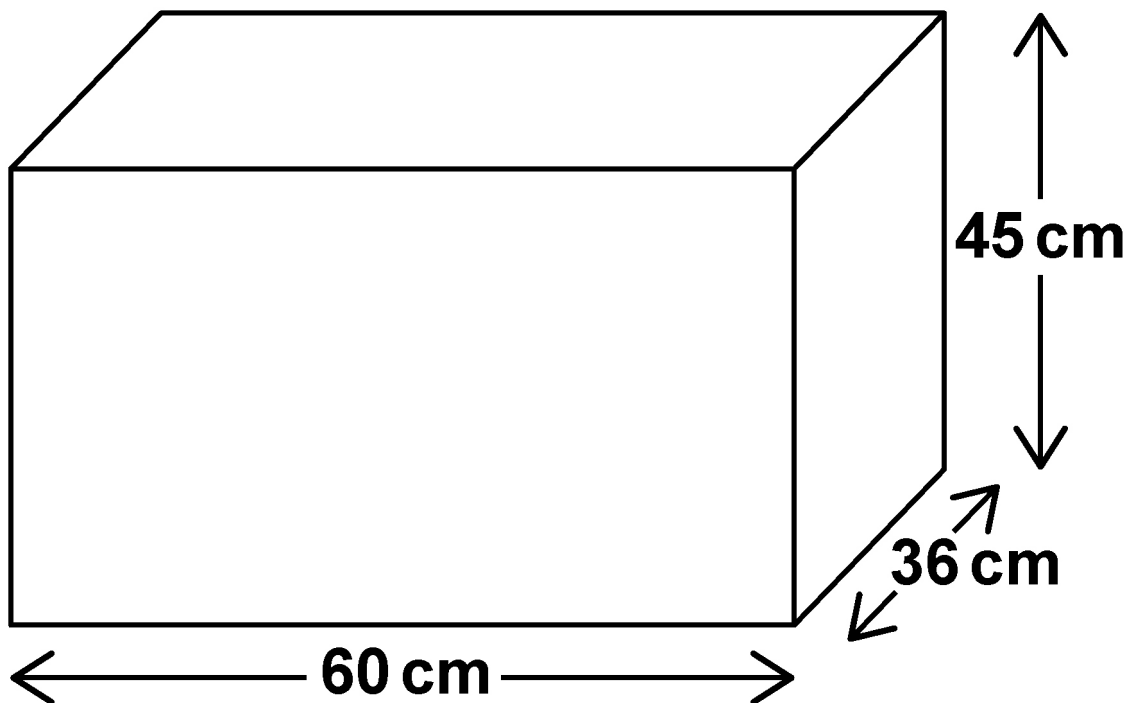
<hr/>
13



**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, on the opposite page.**



<b>SIZE OF PUMP</b>	<b>Small</b>	<b>Medium</b>	<b>Large</b>
<b>VOLUME OF TANK</b>	<b>Less than 55 litres</b>	<b>55 litres to 90 litres</b>	<b>More than 90 litres</b>

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

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

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

---

---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

**Answer** \_\_\_\_\_



**BLANK PAGE**

**[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]**

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**[Turn over]**



---

---

---

---

---

---

---

---

**Answer** \_\_\_\_\_

**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]**



**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.**


**BLANK PAGE**

For Examiner's Use	
Question	Mark
1–7	
8	
9	
10	
11	
<b>TOTAL</b>	

**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](http://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 Team.

Copyright © 2023 AQA and its licensors. All rights reserved.

**WP/M/SB/Jun23/8361/2/E2**