

Please write clearly in	n block capitals.
Centre number	Candidate number
Surname	
Forename(s)	
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

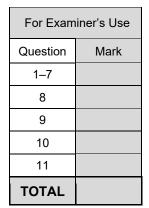
- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- 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.





Section A

		Section A		
	Answer	all questions in the sp	aces provided.	
1	Write these numbers in o	order of size, starting v	vith the smallest .	[1 mark
	67 492	351 968	472410	92 836
	Answer		,	
2	This shape is made usin	ng four cubes.		
	Circle the letter of the pla	an view.		
				[1 mark
	A	В	С	D



3	Round	17.834	to 2 decimal places.	[1 mark]
		А	nswer	

4 Circle the fraction equal to 0.75

[1 mark]

$$\frac{1}{4}$$

$$\frac{3}{4}$$

$$\frac{7}{5}$$

5	Work out	$24^2 + 37^2$			[2 marks

Answer ____

Turn over ▶



Increase 78 by 35%	[3 marks]
Answer	
Work out the volume of this cuboid. State the units of your answer.	[3 marks]
4.5 cm 3.8 cm	
7.2 cm	
Answer	



Section B

Answer all questions in the spaces provided.

	7 mower an questions in the spaces provided.	
8	School trips	
	Mr Nagah and Miss Burns are geography teachers.	
	They are planning a trip for 34 students to a field centre.	
8 (a)	Mr Nagah and Miss Burns will go on the trip.	
	There must be at least 1 teacher for every 8 students on the trip.	
	How many more teachers are needed?	
	You must show your working.	[3 marks]
	Answer	_

Turn over ▶



_	It will take one and a half hours to get to the field centi	e
7	The students will need 20 minutes to unpack	
\	We will then have 45 minutes for lunch	
V	We must be ready for our first activity at 1 pm	
Work out	the latest time they can set off.	[
	Answer	



3 (c)	The total cost of the trip is £3265 The geography department pays 20% of this cost. The rest of the cost is shared equally by the 34 students.	
	Work out how much each student has to pay. Give your answer to the nearest pound.	[5 marks]
	Answer £	

Turn over for the next question

Turn over ►



9 Garden Birds

Simon has a bird feeder in his garden.



9 (a) On Monday Simon records the types of birds that visit his bird feeder.He uses this table to work out the angles needed for a pie chart.

	Number	Angle (degrees)
Starlings	18	
Sparrows	9	
Blackbirds	6	
Others	3	
	Total = 36	

Complete the pie chart.

Starlings [4 marks]



9 (b)	Simon takes a photo of each of the 36 birds that visit the bird feeder on Monday. He decides to choose one of the photos at random. Simon says, $ \text{``The probability that the photo is of a sparrow is } \frac{1}{3} \text{''} $	
	Is Simon correct? You must show your working. [2 n	narks]
	Question 9 continues on the next page	

Turn over ►



9 (c) Simon counts the birds he sees at the feeder each day for the rest of the we
--

Day	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Number of birds	36	25	30	42	44	26	56

of birds	30	20	30	42		20	
In the same	week last y	ear, the m	ean numbe	er of birds p	er day was	39	
This year, h	as the mea	n increase	d decrease	ed or stave	d the same'	2	
Tick (✓) one		ii iiioi casci	a, acorcasc	or staye	a the same	•	
riok (*) on	<u> </u>					_	
	increased		decrease	ed	stayed the	same	
Show workir	ng to suppo	ort your ans	wer.				
							[4 ၊



He say	ys,	
	"A 2.8 kilogram bag of seed will last for more than 3 weeks."	
Is Simo	on correct?	
You m	ust show your working.	[4 marl

Turn over for the next question

Turn over ▶

10	Photographer						
	Liam is a photogi	rapher.					
10 (a)	Liam is asked to	taka nhataa at Mallu'a nartu					
10 (a)	Liam is asked to take photos at Molly's party. He uses this formula to work out his fee.						
	TIC GSCS tills form	idia to work out his ree.	1				
		Fee = £40 + number of photos \times £3.75					
	Molly wants 18 p	hotos.					
	She gives Liam s						
	How much chang	ge should she get?					
			[4 marks]				
	An	swer £					



10 (b)	Liam also	takes school	photos
10 (D)		tancs scribbi	DITULOS

He sells the photos in four different pack sizes, A, B, C and D.

Liam kept a tally of the packs he sold one day.

Pack	Tally	Frequency
А	####	
В	## IIII	
С	₩ I	
D	##	

Liam says,

"I sold more than four times as many of pack A as I did of pack C."

Is he correct? You **must** show your working.

Turn over ▶

[3 marks]



10 (c) Liam wants to arrange six photos on a display board in his studio.

The board is a rectangle with width 120 cm and height 140 cm

He has

- one photo of width 60 cm and height 60 cm
- two photos each of width 30 cm and height 40 cm
- three photos each of width 25 cm and height 15 cm

There must be a space of at least 10 cm between photos.

The grid is a scale drawing of the display board.

Use the grid to show how Liam could arrange the photos.

[5 marks]

Scale:	represents a 10 cm by 10 cm square

12



11 Patchwork

Daisy is making a cushion.

The front of the cushion has a patchwork design made up of 16 square patches.

The back of the cushion is a single piece of fabric.

11 (a) Daisy starts to make a sketch of her design.

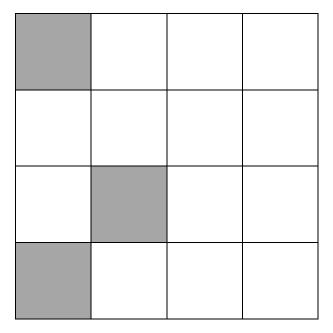
6 of the squares will be grey.

The rest of the squares will be white.

She has shaded 3 of the 6 grey squares.

Shade 3 more squares so that the design has at least one line of symmetry.

[2 marks]



Question 11 continues on the next page



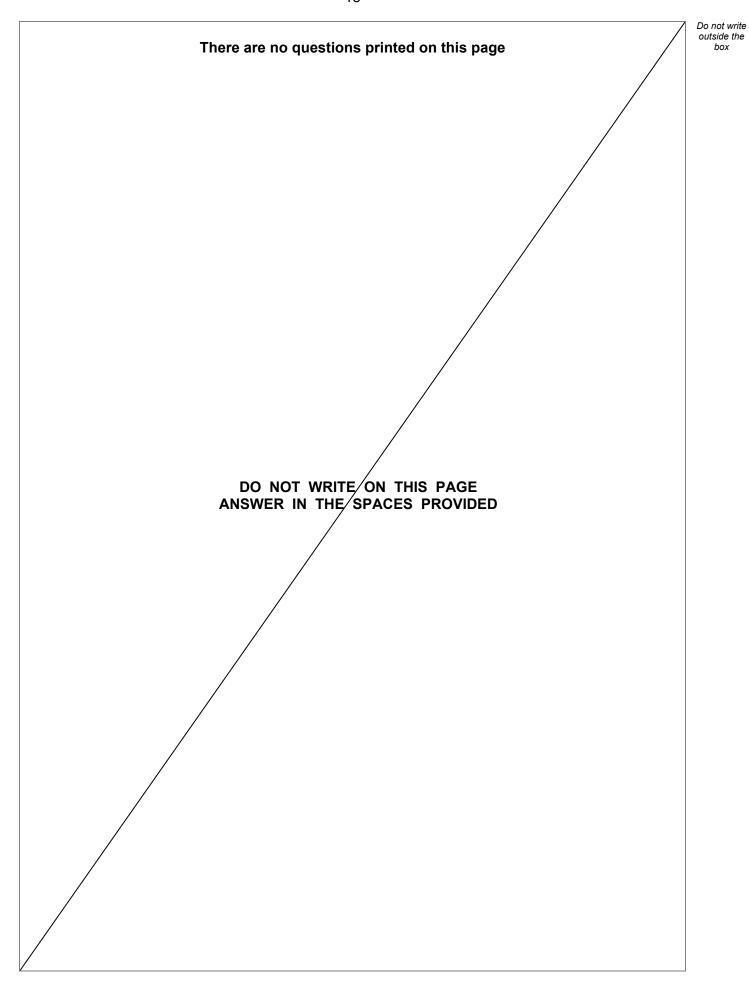
Turn over ►

b)		y's square patche							
		shows the front o							
	Γ			1 cm	Not drawn				
		14 cm			accurately				
									
	The front and back of the cushion are the same size.								
		Daisy has a square piece of fabric with an area of 3600 cm ² She wants to cut the back for her cushion from this piece of fabric.							
	Is this piece of fabric big enough? You must show your working. [4 mark								



11 (c)	Daisy also sews a patchwork quilt.		Do not write outside the box
	The quilt is a rectangle.		
	145 cm	Not drawn accurately	
	120 cm		
	Daisy wants to put cord around the outside edges of the quilt. She has 3.6 metres of cord.		
	How much more cord does Daisy need?		
	State the units of your answer.	[4 marks]	
	Answer	_	10
	END OF QUESTIONS		







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



Do not write outside the box

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