

Please write clearly in block capitals.

Centre number

Candidate number

Surname \_\_\_\_\_

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

Candidate signature \_\_\_\_\_

I declare this is my own work.

# Functional Skills Level 1 MATHEMATICS

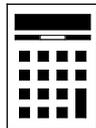
## Paper 2 Calculator

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.

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



**Section A**Answer **all** questions in the spaces provided.

- 1** Write these numbers in order of size, starting with the **smallest**.

**[1 mark]**

67 492

351 968

472 410

92 836

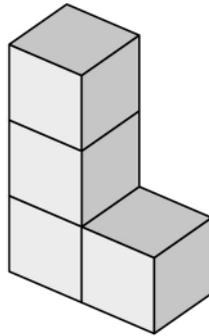
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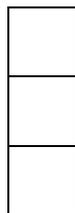
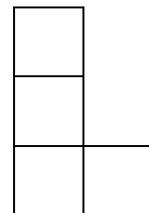
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Answer \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

- 2** This shape is made using four cubes.



Circle the letter of the plan view.

**[1 mark]****A****B****C****D**

3 Round 17.834 to 2 decimal places.

[1 mark]

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Answer \_\_\_\_\_

4 Circle the fraction equal to 0.75

[1 mark]

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

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

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

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

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

[2 marks]

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Answer \_\_\_\_\_

Turn over ►



6 Increase 78 by 35%

[3 marks]

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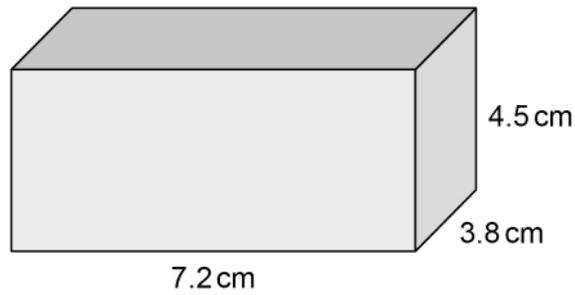
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Answer \_\_\_\_\_

7 Work out the volume of this cuboid.  
State the units of your answer.

[3 marks]



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Answer \_\_\_\_\_

12



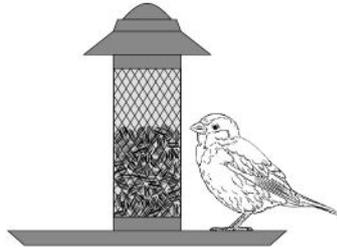






**9 Garden Birds**

Simon has a bird feeder in his garden.

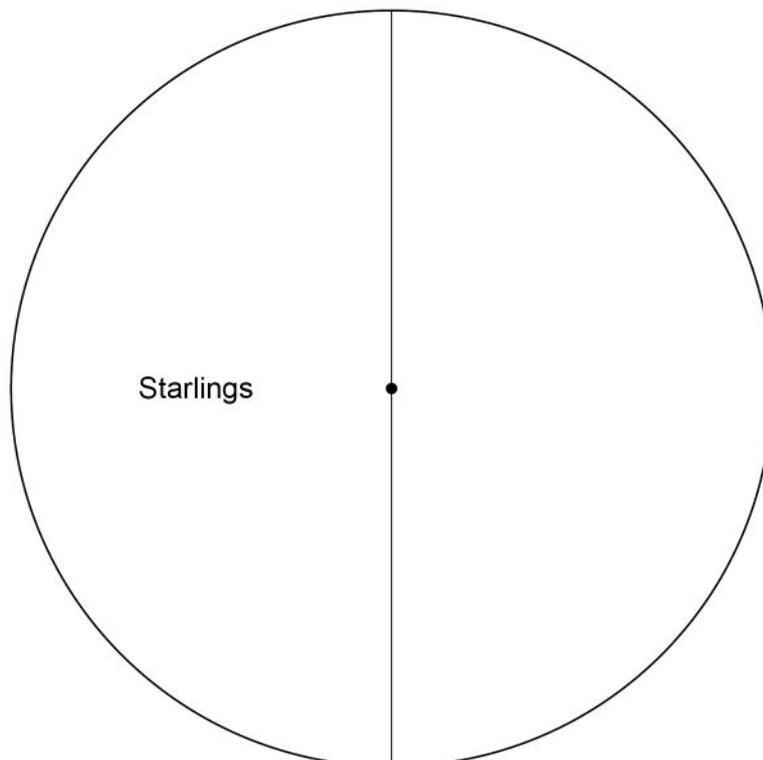


- 9 (a)** On Monday Simon records the types of birds that visit his bird feeder. He uses this table to work out the angles needed for a pie chart.

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

Complete the pie chart.

**[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,

“The probability that the photo is of a sparrow is **more than**  $\frac{1}{3}$ ”

Is Simon correct?

You **must** show your working.

**[2 marks]**

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**Question 9 continues on the next page**

**Turn over ►**







**10 Photographer**

Liam is a photographer.

- 10 (a)** Liam is asked to take photos at Molly's party.  
He uses this formula to work out his fee.

$$\text{Fee} = \text{£}40 + \text{number of photos} \times \text{£}3.75$$

Molly wants 18 photos.

She gives Liam six £20 notes.

How much change should she get?

**[4 marks]**

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Answer £ \_\_\_\_\_



**10 (b)**

Liam also takes school photos.

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
A		
B		
C		
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.**[3 marks]**


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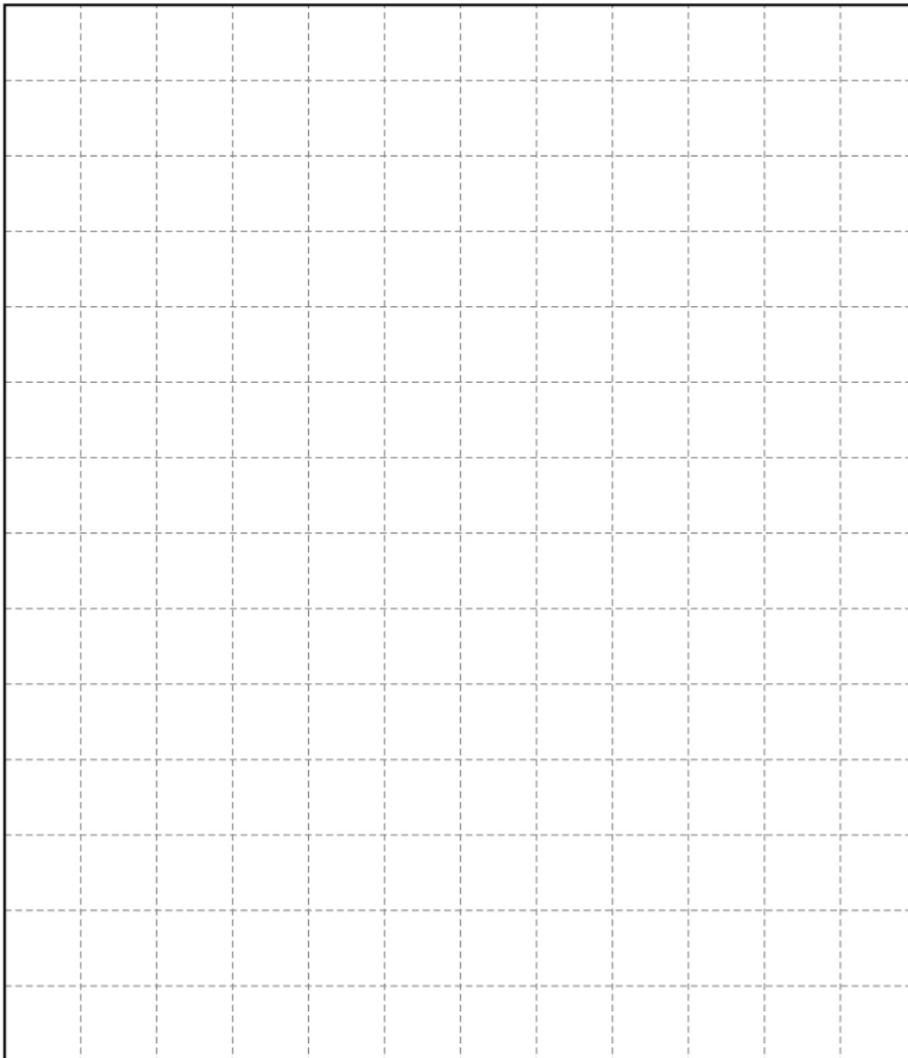
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**Turn over ►**

- 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



**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.

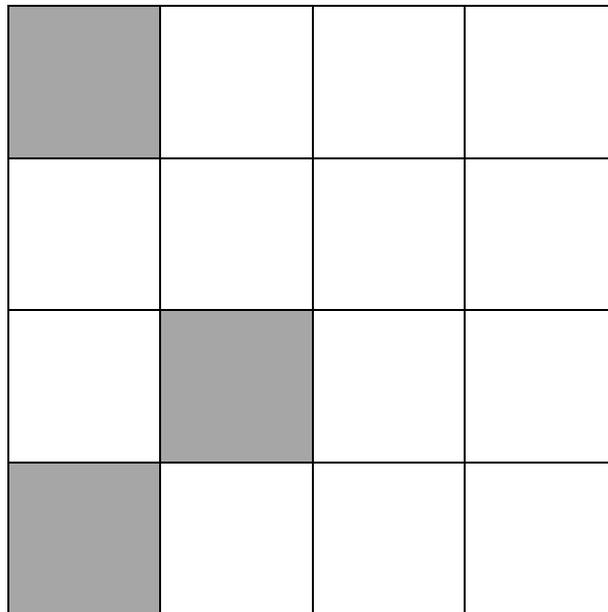
6 of the squares will be grey.

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]**

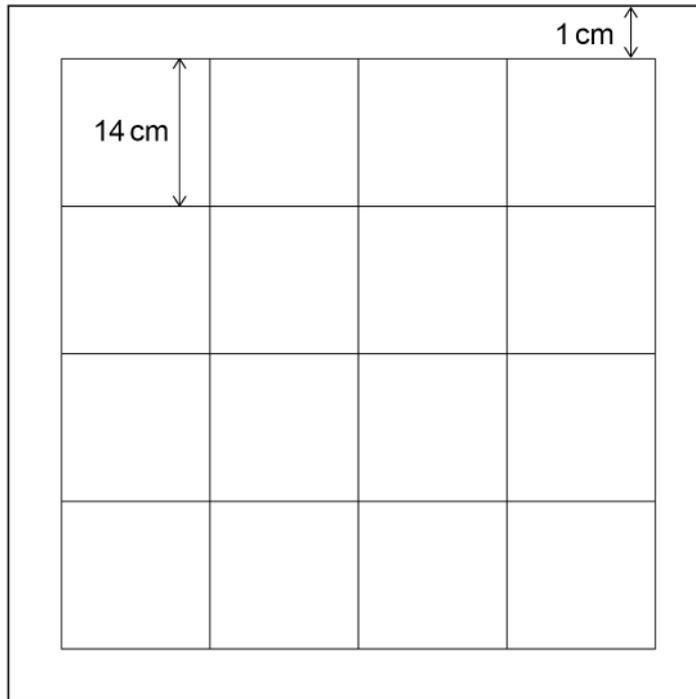


**Question 11 continues on the next page**

**Turn over ►**



- 11 (b)** Each of Daisy's square patches measures 14 cm by 14 cm  
There is a 1 cm border around the patchwork.  
The diagram shows the front of Daisy's cushion.



Not drawn  
accurately

The front and back of the cushion are the same size.  
Daisy has a **square** piece of fabric with an area of  $3600 \text{ cm}^2$   
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 marks]**

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ANSWER IN THE SPACES PROVIDED**





