

Please write clearly in block capitals.

Centre number

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 Candidate number

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Surname _____

Forename(s) _____

Candidate signature _____

Functional Skills Level 2

MATHEMATICS

Section A: Non-Calculator Paper
Section B: Calculator Paper

Paper A/B

Time allowed: 30 minutes / 1 hour 30 minutes

Materials

For this paper you must have:

- mathematical instruments.

You **must not** use a calculator for section A.

You may use a calculator for section B.

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.
- 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 section A is 15 and section B is 45.
- 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 : Non-Calculator

**Answer ALL questions.
Write your answers in the spaces provided.**

Turn over ►

1 Write the following numbers in order of size.

3.2 3.27 3.72 3.702 3.02

[1 mark]

Answer _____

2 Work out

$$1\frac{3}{5} + 2\frac{1}{4}$$

[2 marks]

Answer _____

3 The distance between two towns on a map measures 8 cm. The map has a scale of 1:25000

What is the actual distance between the two towns in km?

[1 mark]

Answer _____

Turn over for next question

4 Calculate $6.402 + 3.545$

[1 mark]

Answer _____

5 The distance an object has moved from its starting point, d , after an amount of time, t , is given by the formula

$$d = 29t^2$$

where d is measured in metres and t is measured in seconds.

Estimate the distance the object has travelled after 5.1 seconds.

[3 marks]

Answer _____

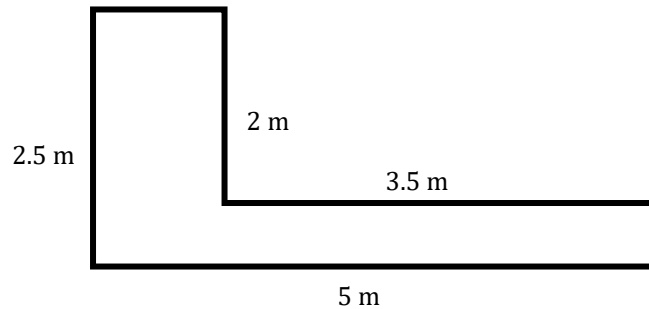
6 Calculate $4335 \div 6$

[1 mark]

Answer _____

Turn over for next question

- 7 Some painters are planning on painting a shape on a wall. They have drawn a sketch of the painting below.



Calculate the area the painters are planning on painting.

[3 marks]

Answer _____

- 8 It would take 7 hours for 3 people to paint the shape on the wall. How long would it take to paint the shape on the wall if another person joins, assuming that they all paint at the same rate?

[3 marks]

Answer _____

End of Section A

SECTION B : Calculator

**Answer ALL questions.
Write your answers in the spaces provided.**

Turn over ►

- 9 Write in digits five hundred and seven thousand, seven hundred and twenty three.

[1 mark]

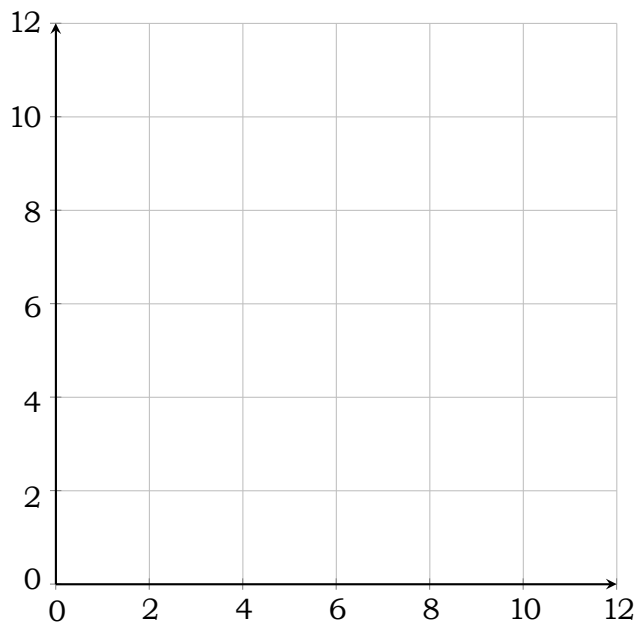
Answer _____

- 10 A manufacturing company produce metal fixings for a DIY retailer.
On one day the manufacturer produces 23040 fixings, of which 1920 are faulty.
What fraction of the fixings produced on this day were defective?
Give your answer in its simplest form.

[2 marks]

Answer _____

- 11 Plot the coordinate (4,3) on the graph below.

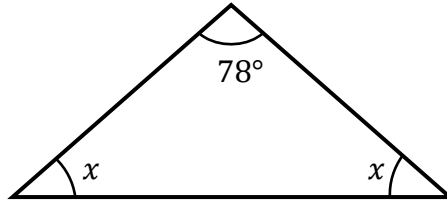


[1 mark]

Turn over for next question

Turn over ►

- 13 The diagram below shows an isosceles triangle. Find the missing angles in this isosceles triangle, labelled x .



[2 marks]

Answer _____

- 14 Jessie measures the heights of her 7 friends, and works out that their mean height is 1.73 m. She measures her own height and works out that the mean height of all of them is 1.74 m.

What is Jessie's height?

[3 marks]

Answer _____

Turn over for next question

- 15** Demi pre-booked a hire car to use on holiday in Spain. She paid £70 in total which gave her car hire for 7 days.

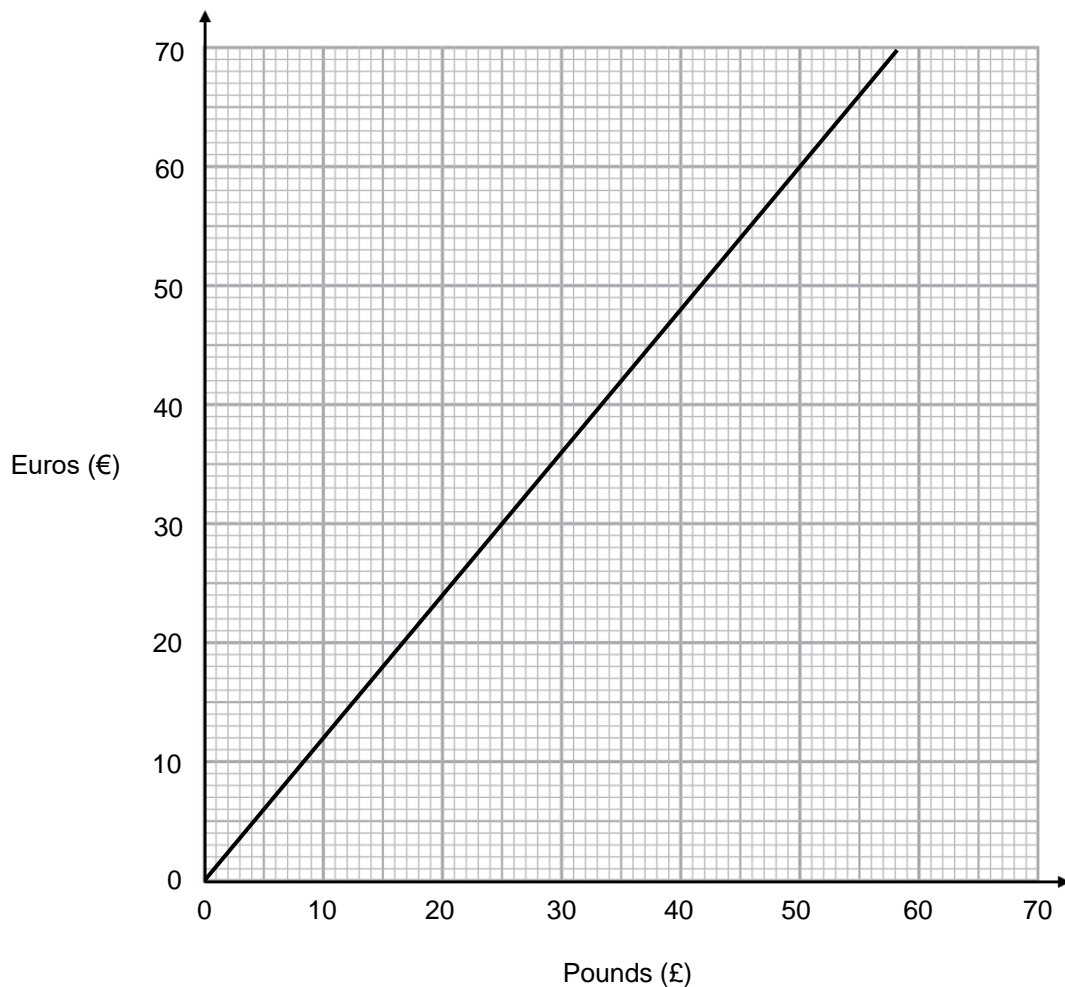
When she went on holiday, she realised that it may have been cheaper to hire the car in Spain, instead of pre-booking it.

The cost of the car hire, in Euros (€), in Spain is calculated using this formula:

$$\text{cost} = 0.6(30 + 15d)$$

where d is the number of days the car is hired for.

Demi uses this conversion graph to convert between Pounds (£) and Euros (€).



Work how much Demi would have saved by paying for the car hire in Spain, instead of pre-booking it. Give your answer in Pounds (£).

[5 marks]

Answer space provided on next page

- 17 The table gives information about the number of girls and boys in Years 9 and 10.

	Year 9	Year 10	Total
Boys		97	
Girls	112		196
Total	174		

Complete the two-way table and use this to find the probability that a student selected at random is a boy.

[4 marks]

Answer _____

- 18 Susan makes fudge using 2 parts of chocolate to 3 parts of frosting. Susan makes a batch of fudge using 510 g of frosting.

She eats 10% of the fudge she has made, and then splits the remaining fudge into individual bars, each weighing 100 g.

How many individual bars of fudge can she make?

[3 marks]

Answer _____

Turn over for next question

