Please check the examination details below before entering your candidate information

Candidate surname	Other names

Centre Number	Candidate Number

Mathematics

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Foundation Tier

Best Guess Paper 3F – 11th June 2025

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- **Calculators may be used where indicated, but not otherwise.**
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Disclaimer: No-one can ever be sure what will definitely appear on the GCSE Maths Papers. I have put this paper together based on common topics we often see on Paper 3, now that we've seen Paper 1&2. I hope you find it helpful!

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Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

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1 Write 19% as a fraction.

.....

(Total for Question 1 is 1 mark)

2 Work out 3.5^2

.....

(Total for Question 2 is 1 mark)

3 Work out $\frac{4}{5}$ of 80

.....

(Total for Question 3 is 1 mark)

4 Write 5.28 correct to 1 decimal place.

.....

(Total for Question 4 is 1 mark)

5 Write down the value of the 5 in the number 457.18

.....

(Total for Question 5 is 1 mark)

6 Here is a list of numbers.

6 9 15 21 24 27 29

From the list, write down

(a) a factor of 12

.....
(1)

(b) a prime number

.....
(1)

(c) a cube number

.....
(1)

(Total for Question 6 is 3 marks)

---

7 Jack and Harry are planning a trip to a festival. They will travel together by car, sharing all costs equally between the two of them.
These are the costs for the trip.

Total cost of petrol	£70
Weekend tickets for the festival	£150 each person
Spending money	£85 each person

Jack paid a deposit of £80 for his festival ticket. He has decided to save the rest of the money that he needs over four months.

How much does Jack need to save each month?

£.....

(Total for Question 7 is 4 marks)

8 (a) Expand $x(3x - 5)$

VIDEO SOLUTIONS

.....

(1)

(b) Expand and simplify $3(t + 5) - 2(6 - t)$

.....

(2)

(c) Factorise fully $18m^2 - 21m$

.....

(2)

(Total for Question 8 is 5 marks)

9 The pictogram shows information about the number of loaves of bread sold in a bakery on Monday, on Tuesday and on Wednesday.

Monday	
Tuesday	
Wednesday	
Thursday	

Key:

 represents 32 loaves

Over the four days shown, the bakery sold a total of 176 loaves.

(a) Complete the pictogram for Thursday.

(2)

(b) What percentage of the loaves of bread were sold on Monday?
Give your answer to 1 decimal place.

.....%

(2)

(Total for Question 9 is 4 marks)

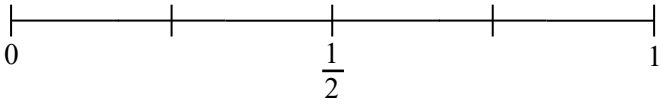
10 There are 8 chocolate bars in my cupboard. Each chocolate bar is listed below.

Crunchie Wispa Wispa Crunchie Snickers Wispa Wispa Snickers

I am going to take a chocolate bar from the cupboard at random.

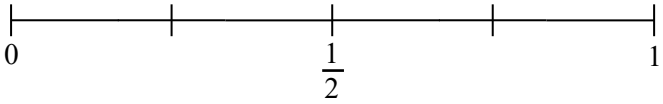
VIDEO SOLUTIONS

(b) (i) On the probability scale, mark with a cross (×) the probability that I will take a Wispa



(1)

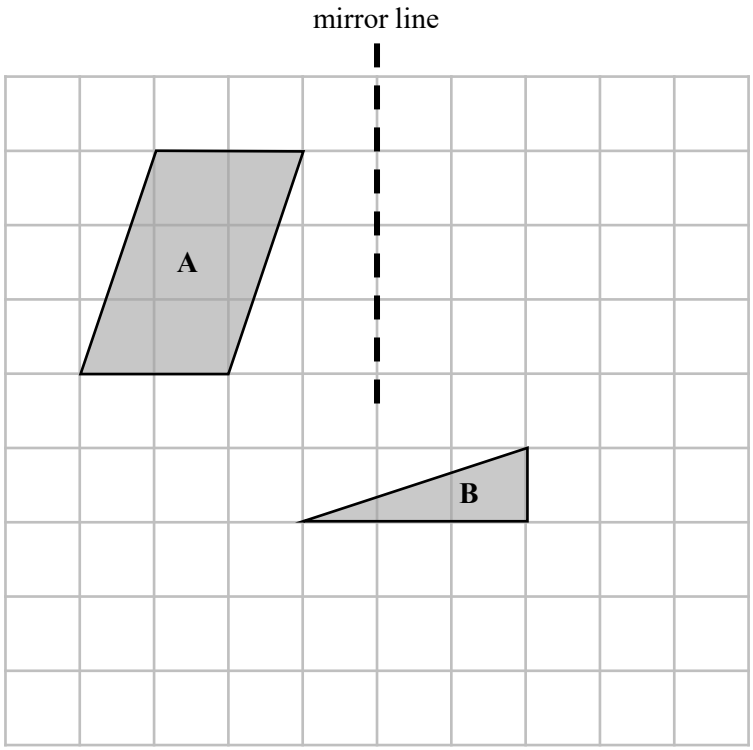
(ii) On the probability scale, mark with a cross (×) the probability that I will take a Twirl



(1)

(Total for Question 10 is 2 marks)

11



(a) Reflect Shape **A** in the mirror line

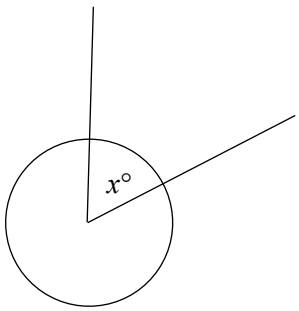
(2)

(b) Translate Shape **B** by the vector $\begin{pmatrix} -2 \\ -3 \end{pmatrix}$

(2)

(Total for Question 11 is 4 marks)

12



$x°$ is 15% of a full turn.

Find the value of x.

.....

(Total for Question 12 is 3 marks)

13 A stall sells large and small glasses of lemonade.

A large glass is 270 ml
A small glass is 180 ml

(a) Laura orders 5 large and 2 small glasses of lemonade.
What is the total amount of lemonade Laura has bought?
Give your answer in litres.

..... litres

(2)

(b) Write the ratio of the amount of lemonade in a large glass to the amount of lemonade in a small glass. Give your answer in the form $n : 1$.

.....

(2)

(Total for Question 13 is 4 marks)

14 (a) Work out $\dfrac{17.25 + 10.8}{12 - 2.97}$

VIDEO SOLUTIONS

Give your answer as a decimal.
Write down all the figures on your calculator display.

.....

(2)

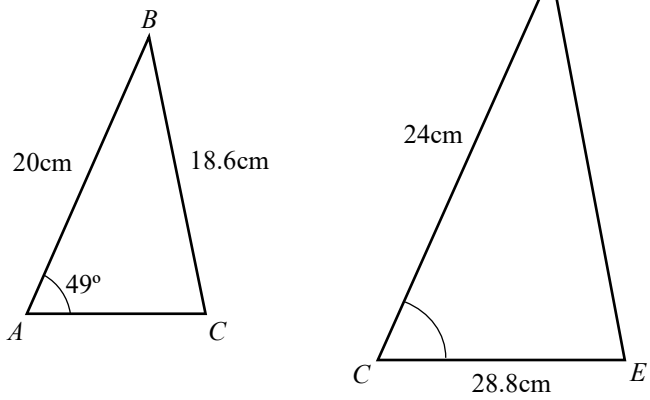
(b) Give your answer to part (a) correct to 2 significant figures.

.....

(1)

(Total for Question 14 is 3 marks)

15 Triangle *ABC* and triangle *DEF* are similar.



(a) Work out the length of DE

.....cm

(b) Work out the length of AC

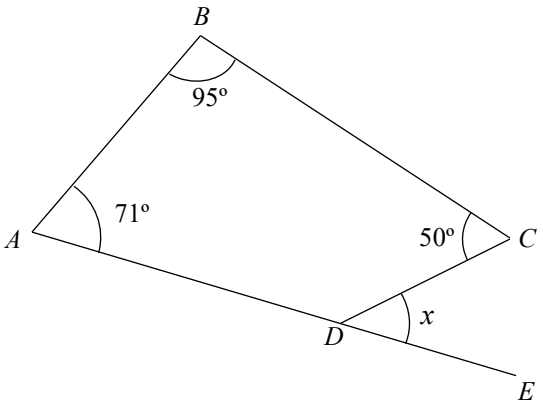
.....cm

(c) What is the size of angle *DCE*?

.....°

(Total for Question 15 is 5 marks)

16



ABCD is a quadrilateral
ADE is a straight line

Work out the size of angle x
You must show all your working.

.....°

(Total for Question 16 is 3 marks)

17 Here are the first five terms of an arithmetic sequence.

1, 6, 11, 16, 21

(a) Find an expression, in terms of n, for the nth term of this sequence.

.....

(2)

(a) Find the 15th term in the sequence

.....

(1)

(Total for Question 17 is 3 marks)

18 The frequency table gives information about the length of 45 small sharks.

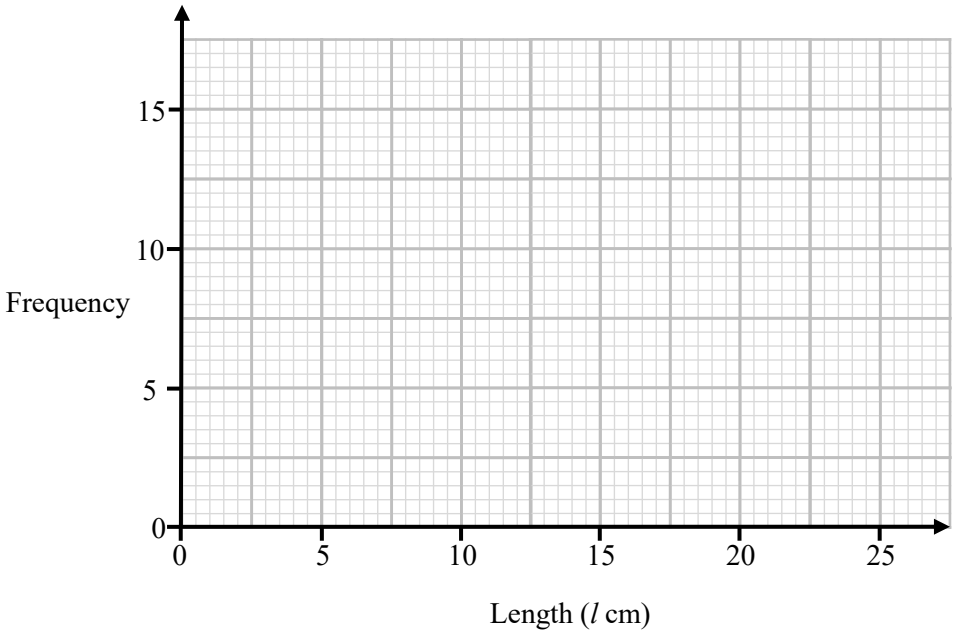
Length (l cm)	Frequency
$0 < l \leq 5$	3
$5 < l \leq 10$	9
$10 < l \leq 15$	12
$15 < l \leq 20$	15
$20 < l \leq 25$	6

(a) Calculate an estimate for the mean length of shark.

.....

(3)

(b) On the grid, draw a frequency polygon for the information in the table.



(2)

(Total for Question 18 is 5 marks)

19 Laura runs for 25 minutes at an average speed of 12 km/h.
Tami runs for 40 minutes.

At what speed would Tami need to run to complete the exact same distance as Laura?

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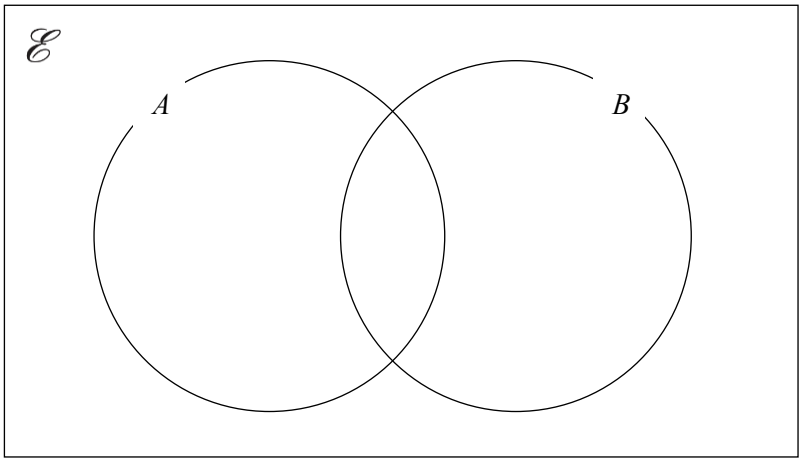
.....km/h

(Total for Question 19 is 3 marks)

---

20 $\mathscr{E}$ = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16}
A = {1, 3, 7, 9, 15}
B = {square numbers}



(a) Complete the Venn diagram for this information. **(3)**

A number is chosen at random from the universal set
(b) Find the probability that the number is in the set $A \cup B$

.....

(2)

(Total for Question 20 is 5 marks)

21 Manon invests £3000 in a savings account for 5 years.
The savings account pays compound interest at a rate of 2.4% per annum.

Calculate the total amount of interest Manon will have after 5 years?

VIDEO SOLUTIONS

.....

(Total for Question 21 is 3 marks)

22 Austin is planning a holiday to Thailand for 10 nights.

The flights will cost £685 for a return journey.
The hotel costs 900 Thai Baht per night.
The exchange rate is £1 = 40.92 Thai Baht

Calculate the total cost of the flight and hotel.
Give your answer in pounds.

£.....

(Total for Question 22 is 3 marks)

23 A number h is written correct to 1 decimal place.

The result is 4.2

Complete the error interval for x.

VIDEO SOLUTIONS

..... $\leq h <$ .....

(Total for Question 23 is 2 marks)

24 An exam is out of 80 marks.
40% of the paper covers Geometry and Statistics.
The rest of the marks in the paper cover Number, Algebra and Ratio in the ratio 6 : 5 : 5

How many marks were allocated to Number?

.....

(Total for Question 24 is 3 marks)

25 It takes 3 builders 12 days to build a wall.

(a) How many days would it take 4 builders to build the same wall?

.....

(2)

(b) State one assumption you made in working out your answer to part (a).

.....

.....

.....

(1)

(Total for Question 25 is 3 marks)

26 (a) Make t the subject of $h = 3t - 5$

VIDEO SOLUTIONS

.....

(b) $y = 4x^2 - 12$ **(2)**

Work out the value of y when $x = -2$

.....

(2)

(c) Simplify $(m^4)^3$

.....

(1)

(Total for Question 26 is 5 marks)

TOTAL FOR PAPER IS 80 MARKS