

Write your name here

Surname

Other Names

Mathematics

June 2017 Paper 1 (Non Calculator)

Part 1 (First half of the paper)

Edexcel Foundation Tier

Time: 45 minutes

Q	Topic	Max Mark	My Marks
1	Powers and Roots	1	
2	Rounding	1	
3	Simplifying Algebra, Solving Equations	2	
4	Fractions, Decimals and Percentages	1	
5	Percentage of Amount	2	
6	Probability Scale	2	
7	Calculation Problems (Money)	3	
8	Adding and Multiplying Fractions	3	
9	Calculation Problem (Rate of Pay)	4	
10	Writing and Simplifying Ratio	2	
11	Sequences, Term to Term	6	
12	Writing Probability	2	
13	Scale Drawing	3	
14	Pie Charts	4	
15	Area of a triangle, Forming Equations	4	
16	Substitution	2	
	Total	42	

Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Work out the value of 2^4

.....

(Total for Question 1 is 1 mark)

2 Write 7.26451 correct to 3 decimal places.

.....

(Total for Question 2 is 1 mark)

3 (a) Simplify $7 \times e \times f \times 8$

.....

(1)

(b) Solve $\frac{x}{5} = 2\frac{1}{2}$

$x =$

(1)

(Total for Question 3 is 2 marks)

4 Write $\frac{4}{5}$ as a percentage.

.....%

(Total for Question 4 is 1 mark)

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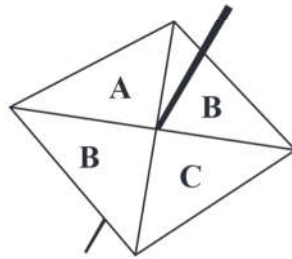
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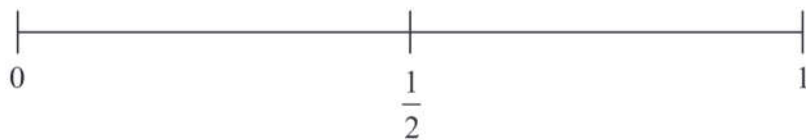
5 Work out 60% of 70

(Total for Question 5 is 2 marks)

6 Sammy spins a fair 4-sided spinner.

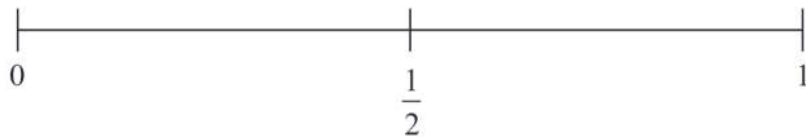


(i) On the probability scale, mark with a cross (×) the probability that the spinner will land on **B**.



(1)

(ii) On the probability scale, mark with a cross (×) the probability that the spinner will land on **F**.



(1)

(Total for Question 6 is 2 marks)



7 Fahima buys

- 2 packets of bread rolls costing £1.50 for each packet
- 1 bottle of ketchup costing £1.60
- 3 packets of sausages

Fahima pays with a £10 note.
She gets 30p change.

Fahima works out that one packet of sausages costs £2.30

Is Fahima right?
You must show how you get your answer.

(Total for Question 7 is 3 marks)

8 (a) Work out $\frac{5}{8} \times \frac{3}{4}$

.....
(1)

(b) Work out $\frac{2}{3} - \frac{1}{4}$

.....
(2)

(Total for Question 8 is 3 marks)



- 9 Sean works for a company.
His normal rate of pay is £12 per hour.

When Sean works more than 8 hours a day, he is paid overtime for each hour he works more than 8 hours.

Sean's rate of overtime pay per hour is $1\frac{1}{4}$ times his normal rate of pay per hour.

On Monday Sean worked for 10 hours.

Work out the total amount of money Sean earned on Monday.

£.....



(Total for Question 9 is 4 marks)

- 10 A farmer has 20 boxes of eggs.
There are 6 eggs in each box.

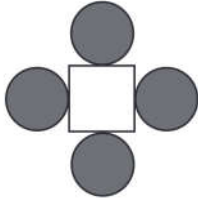
Write, as a ratio, the number of eggs in two boxes to the total number of eggs.
Give your answer in its simplest form.

.....
(Total for Question 10 is 2 marks)

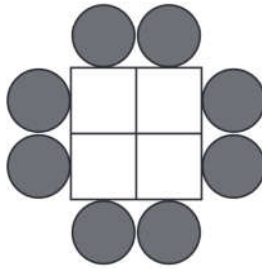


11 A sequence of patterns is made from circular tiles  and square tiles 

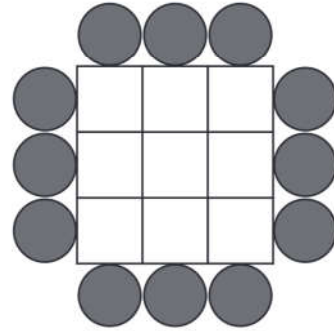
Here are the first three patterns in the sequence.



pattern number 1



pattern number 2



pattern number 3

(a) How many square tiles are needed to make pattern number 6?

.....
(2)

(b) How many circular tiles are needed to make pattern number 20?

.....
(2)

Derek says,

“When the pattern number is odd, an odd number of square tiles is needed to make the pattern.”

(c) Is Derek right?

You must give reasons for your answer.

.....
(2)

(Total for Question 11 is 6 marks)



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12 There are only 7 blue pens, 4 green pens and 6 red pens in a box.
One pen is taken at random from the box.
Write down the probability that this pen is blue.

.....

(Total for Question 12 is 2 marks)

13 The diagram shows a tree and a man.



The man is of average height.
The tree and the man are drawn to the same scale.

(a) Write down an estimate for the real height, in metres, of the man.

..... metres
(1)

(b) Find an estimate for the real height, in metres, of the tree.

..... metres
(2)

(Total for Question 13 is 3 marks)

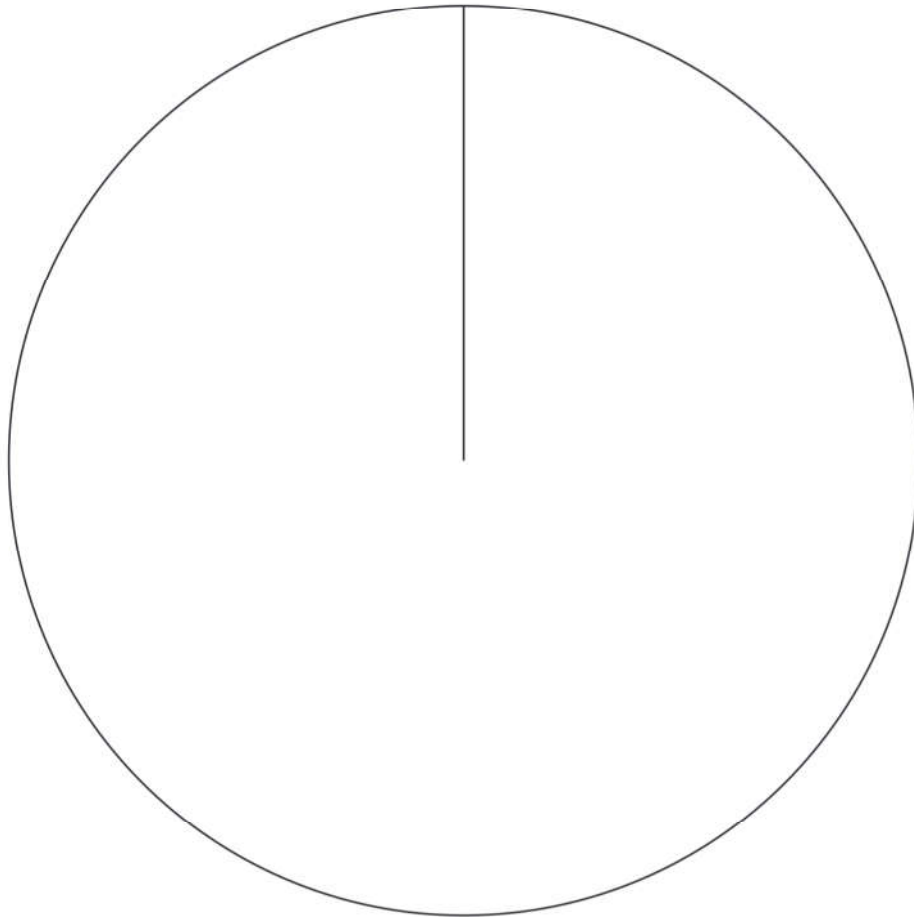


14 Year 9 students from Halle School were asked to choose one language to study.

The table shows information about their choices.

Language	Number of students	
French	56	
Spanish	40	
German	24	

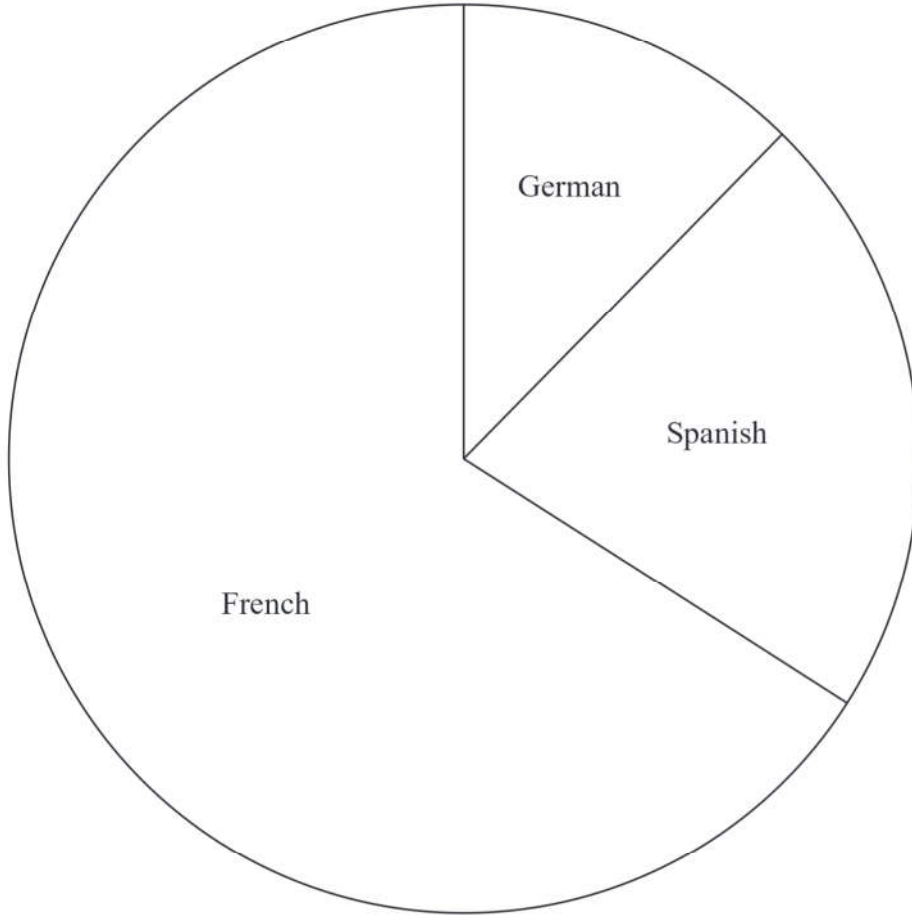
(a) Draw an accurate pie chart to show this information.



(3)



Year 9 students from Lowry School were also asked to choose one language to study.
This accurate pie chart shows information about their choices.



Shameena says,

“The pie chart shows that French was chosen by more Year 9 students at Lowry School than at Halle School.”

- (b) Is Shameena right?
You must explain your answer.

.....

.....

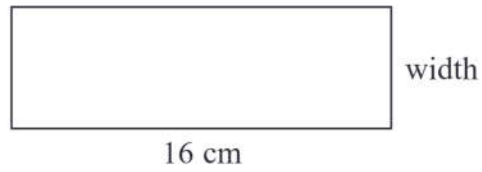
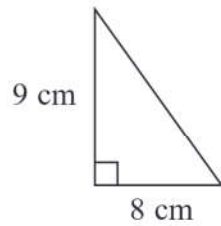
.....

(1)

(Total for Question 14 is 4 marks)



15 Here are a triangle and a rectangle.



The area of the rectangle is 6 times the area of the triangle.

Work out the width of the rectangle.

..... cm

(Total for Question 15 is 4 marks)

16 $v = u + at$

$$u = 1 \quad a = -3 \quad t = \frac{1}{2}$$

Work out the value of v .

$v =$

(Total for Question 16 is 2 marks)

