NON-CALC E

GCSE Mathematics · Foundation Tier

40 marks · 45 minutes · Non-calculator

Name ..... **Class** .....

Answer all questions. Show all your working. Diagrams are NOT accurately drawn unless stated.

1 Write down the value of the 7 in the number 3.472

.....

(Total for Question 1 is 1 mark)

2 Write down a number that is a factor of 20 and also a multiple of 4

.....

(Total for Question 2 is 1 mark)

3 **(a)** Simplify $2y + 5y - y$

.....

(1)

Pencils cost 15p each. A ruler costs 40p.

(b) Write an expression for the total cost, in pence, of n pencils and one ruler.

..... pence

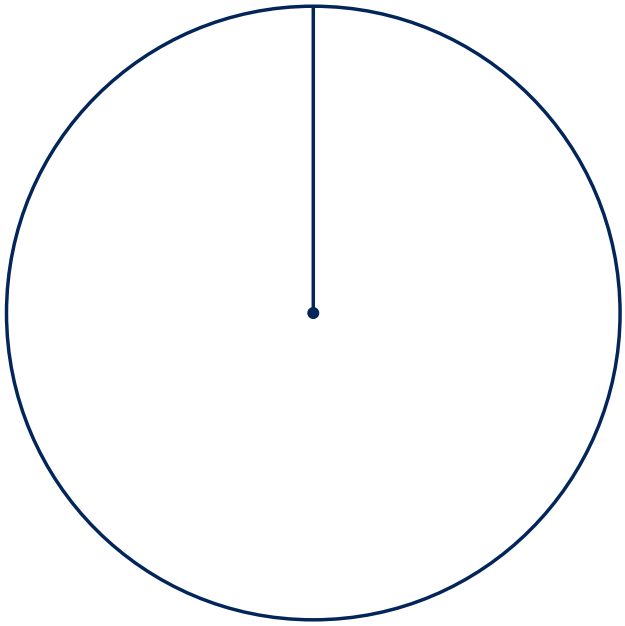
(1)

(Total for Question 3 is 2 marks)

4 The table shows how 36 students travel to school.

Method	Walk	Bus	Car	Cycle
Frequency	15	12	6	3

Draw an accurate pie chart to show this information.



(Total for Question 4 is 3 marks)

5 At midnight the temperature in a town was –6 °C. At noon the temperature was 9 °C.

(a) Work out the difference between these two temperatures.

..... °C

(1)

By 10 pm the temperature had fallen by 11 °C from the temperature at noon.

(b) Work out the temperature at 10 pm.

..... °C

(1)

(Total for Question 5 is 2 marks)

6 The scale of a map is 1 cm represents 5 km.

Two villages are 7.4 cm apart on the map.

Work out the real distance between the two villages.

..... km

(Total for Question 6 is 2 marks)

7 Notebooks and pens are sold at these prices.

5 notebooks	**3 pens**
£7.50	£2.40

Raj buys 8 notebooks and 2 pens. He pays with a £20 note.

How much change should Raj get?

£.....

(Total for Question 7 is 3 marks)

8 Mo thinks of a number.

He multiplies his number by 4 and then subtracts 7. His answer is 29

Use algebra to work out the number Mo thought of.

.....

(Total for Question 8 is 3 marks)

9 The diagram shows a trapezium.

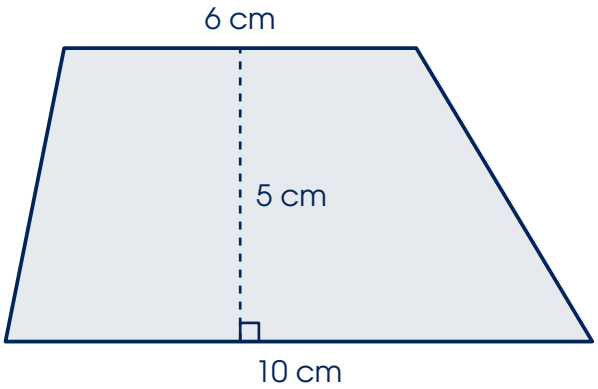


Diagram NOT accurately drawn

(a) Work out the area of the trapezium.

..... cm^2

(2)

A rectangle has the same area as the trapezium. The width of the rectangle is 4 cm.

(b) Work out the length of the rectangle.

..... cm

(1)

(Total for Question 9 is 3 marks)

10 Spinner A can land on 1, 2 or 3. Spinner B can land on 1 or 2. Each spinner is fair. Both spinners are spun and the two numbers are added to get a total.

(a) Complete the table to show all the possible totals.

Spinner A

Spinner B	+	1	2	3
	1	2		
	2			

(1)

(b) Work out the probability that the total is 4

.....

(1)

Tom says, "A total of 3 and a total of 5 are equally likely."

(c) Is Tom correct? You must give a reason for your answer.

.....

(1)

(Total for Question 10 is 3 marks)

11 Work out $\frac{5}{6} - \frac{1}{4}$

.....

(Total for Question 11 is 2 marks)

12 **(a)** Solve $3x - 2 < 13$

.....

(2)

(b) Write down the largest integer that satisfies $3x - 2 < 13$

.....

(1)

(Total for Question 12 is 3 marks)

13 Each exterior angle of a regular polygon is 40°.

(a) Work out the number of sides the polygon has.

.....

(2)

(b) Work out the size of each interior angle of the polygon.

..... °

(1)

(Total for Question 13 is 3 marks)

14 Ella is choosing a phone contract. Both contracts last for 24 months.

Contract A: £24 each month.

Contract B: £180 at the start, then £15 each month.

Which contract is cheaper over the 24 months, and by how much?

You must show all your working.

(Total for Question 14 is 3 marks)

15 Kai makes a fruit drink by mixing orange juice and lemonade in the ratio 3 : 5

He wants to make 2 litres of the fruit drink.

Orange juice is sold in 250 ml cartons. Each carton costs 60p.

Work out the cost of the orange juice Kai needs to buy.

£.....

(Total for Question 15 is 3 marks)

16 There are 30 students in a class. 40% of the students are boys.

$\frac{1}{3}$ of the boys wear glasses and $\frac{1}{2}$ of the girls wear glasses.

How many students in the class wear glasses?

.....

(Total for Question 16 is 3 marks)

TOTAL FOR PAPER IS 40 MARKS