NON-CALC B

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 these numbers in order of size. Start with the smallest number.

0.6 **0.06** **0.66** **0.606**

.....

(Total for Question 1 is 1 mark)

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2 **(a)** Write down the value of 5^3

.....

(1)

Lewis says, "$4^3 = 12$"

(b) Explain why Lewis is wrong.

.....

.....

(1)

(Total for Question 2 is 2 marks)

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3 Here is a function machine.



(a) Work out the output when the input is 6

.....

(1)

(b) Work out the input when the output is 23

.....

(1)

(Total for Question 3 is 2 marks)

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4 The pictogram shows the number of books borrowed from a library on four days.

Monday	● ● ●
Tuesday	● ● ● ● ◗
Wednesday	● ●
Thursday	

Key

● represents 4 books

(a) How many books were borrowed on Monday?

.....

(1)

On Thursday, 10 books were borrowed.

(b) Complete the pictogram.

(1)

(c) How many more books were borrowed on Tuesday than on Wednesday?

.....

(1)

(Total for Question 4 is 3 marks)

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5 **(a)** Work out 7.2 – 3.85

.....

(1)

(b) Work out 0.4 × 1.2

.....

(1)

(Total for Question 5 is 2 marks)

6 A lamp normally costs £35

In a sale, the price is reduced by 20%.

Work out the sale price of the lamp.

£.....

(Total for Question 6 is 2 marks)

7

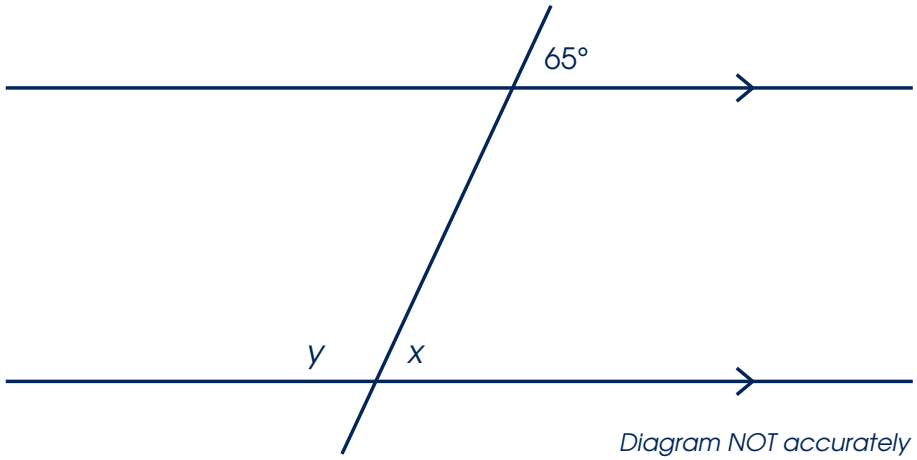


Diagram NOT accurately drawn

The diagram shows two parallel lines crossed by a straight line.

(a) Write down the size of angle *x*. Give a reason for your answer.

.....°

.....

(2)

(b) Work out the size of angle *y*.

.....°

(1)

(Total for Question 7 is 3 marks)

8 **(a)** Factorise $6x + 15$

.....

(1)

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

.....

(2)

(Total for Question 8 is 3 marks)

9 A shop sells pens in two sizes of pack.

Pack A	**Pack B**
3 pens	5 pens
£1.35	£2.10

Which pack is the better value for money?

You must show how you get your answer.

(Total for Question 9 is 3 marks)

10 A spinner can land on red, blue, green or yellow.

The table shows the probabilities that the spinner lands on red, blue and yellow.

Colour	red	blue	green	yellow
Probability	0.2	0.35		0.15

(a) Work out the probability that the spinner lands on green.

.....

(2)

The spinner is spun 200 times.

(b) Work out an estimate for the number of times it lands on blue.

.....

(1)

(Total for Question 10 is 3 marks)

11 A rectangle has a perimeter of 30 cm.

The length of the rectangle is twice its width.

Work out the area of the rectangle.

..... cm^2

(Total for Question 11 is 3 marks)

12 The length, L cm, of a pencil is 7.3 cm, correct to 1 decimal place.

Write down the error interval for L.

.....

(Total for Question 12 is 2 marks)

13 **(a)** Work out an estimate for the value of $\frac{4.87 \times 39.6}{0.52}$

.....

(2)

(b) Is your answer to part (a) an overestimate or an underestimate?

Give a reason for your answer.

.....

.....

(1)

(Total for Question 13 is 3 marks)

14 The exchange rate is £1 = €1.20

A watch costs €96 in Paris.

The same watch costs £82 in London.

In which city is the watch cheaper, and by how much?

Give your answer in pounds.

(Total for Question 14 is 4 marks)

15 The diagram shows a triangle. All lengths are in centimetres.

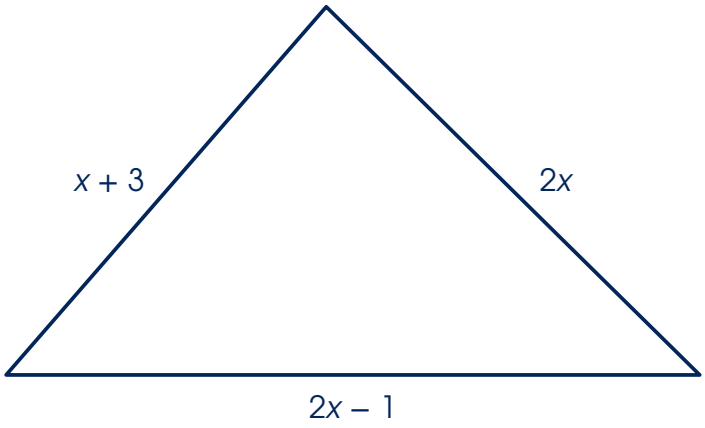


Diagram NOT accurately drawn

(a) Show that the perimeter of the triangle is $(5x + 2)$ cm.

(1)

The perimeter of the triangle is 32 cm.

(b) Work out the length of the longest side of the triangle.

..... cm

(3)

(Total for Question 15 is 4 marks)

TOTAL FOR PAPER IS 40 MARKS