NON-CALC C

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 Work out $6 + 4 \times 3$

.....

(Total for Question 1 is 1 mark)

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2 **(a)** Write down a factor of 18 that is greater than 5

.....

(1)

(b) Write 36 as a product of its prime factors.

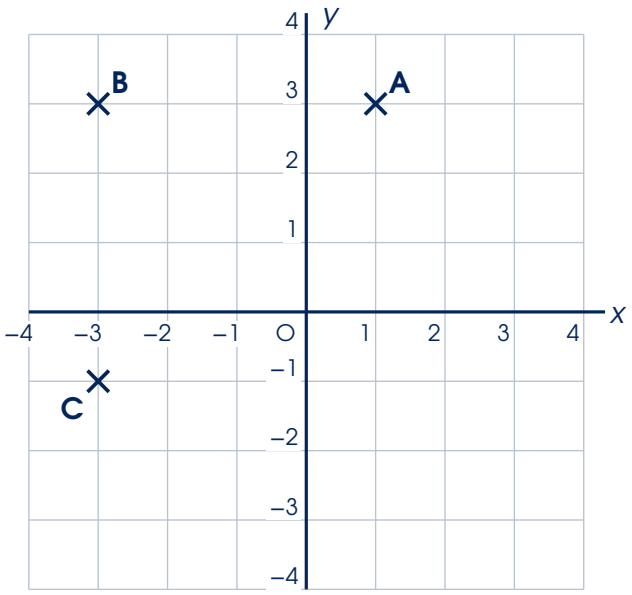
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(2)

(Total for Question 2 is 3 marks)

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3 Points *A*, *B* and *C* are shown on the grid.



(a) Write down the coordinates of point *B*.

(.....)

(1)

(b) *ABCD* is a square. Mark point *D* on the grid with a cross (×).
Write down the coordinates of point *D*.

(.....)

(1)

(Total for Question 3 is 2 marks)

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4 **(a)** Change 3.5 km into metres.

..... m

(1)

(b) How many minutes are there in 2.25 hours?

..... minutes

(1)

(Total for Question 4 is 2 marks)

5 Here are six numbers.

4 7 2 9 7 3

(a) Write down the mode.

.....

(1)

(b) Work out the median.

.....

(2)

Another number is added to the list. The range of the seven numbers is now 10

(c) Write down a possible value of the number that was added.

.....

(1)

(Total for Question 5 is 4 marks)

6 A fair six-sided dice is rolled once.

(a) Write down the probability that it lands on a number greater than 4

.....

(1)

Ellie says, "The probability that the dice lands on an even number is $\frac{1}{3}$"

(b) Is Ellie correct? You must give a reason for your answer.

.....

.....

(1)

(Total for Question 6 is 2 marks)

7 **(a)** Solve $4x = 28$

$x =$ .....

(1)

Zara tries to solve the equation $3x + 11 = 2$

Zara's working

$3x + 11 = 2$

$3x = 13$

$x = \frac{13}{3}$

(b) Explain the mistake Zara has made, and work out the correct solution.

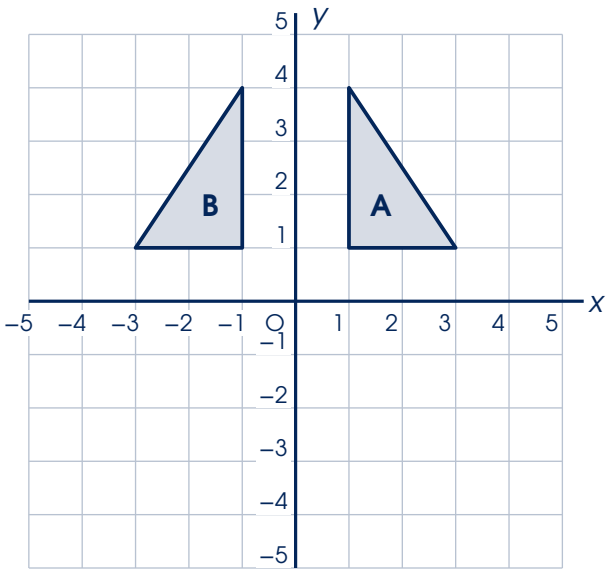
.....

$x =$ .....

(2)

(Total for Question 7 is 3 marks)

8



(a) Describe fully the single transformation that maps shape *A* onto shape *B*.

.....

.....

(2)

(b) On the grid, translate shape *A* 5 squares down.

(1)

(Total for Question 8 is 3 marks)

9 120 tickets were sold for a school show.

$\frac{3}{4}$ of the tickets sold were adult tickets. The rest were child tickets.

An adult ticket costs £6 and a child ticket costs £4

Work out the total amount of money taken from ticket sales.

£.....

(Total for Question 9 is 3 marks)

10 There are 280 students in a school. 120 of the students walk to school.

The rest of the students do not walk to school.

(a) Write down the ratio of the number of students who walk to the number who do not walk.

Give your answer in its simplest form.

.....

(2)

(b) What fraction of the students walk to school? Give your fraction in its simplest form.

.....

(1)

(Total for Question 10 is 3 marks)

11 Here are the first four terms of a sequence.

20 17 14 11

(a) Write down the next term of the sequence.

.....

(1)

(b) Work out the 10th term of the sequence.

.....

(1)

Kayla says, "1 will be a term in this sequence."

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

.....

.....

(1)

(Total for Question 11 is 3 marks)

12 Jordan scored 36 out of 45 in a test.

Mia scored 78% in the same test.

Who got the higher score? You must show how you get your answer.

(Total for Question 12 is 2 marks)

13 The diagram shows a circle inside a square.

The circle touches all four sides of the square. Each side of the square is 12 cm.

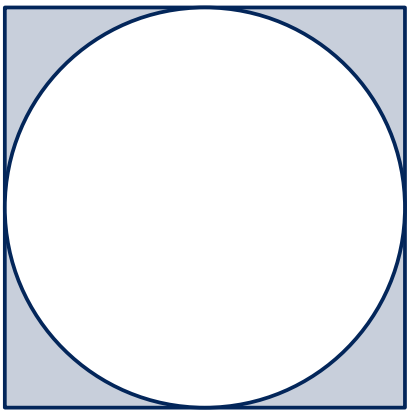


Diagram NOT accurately drawn

Work out the area of the shaded region.

Give your answer in terms of π.

..... cm^2

(Total for Question 13 is 3 marks)

14 A minibus can carry 16 passengers.

75 students and 6 teachers are going on a school trip.

It costs £45 to hire one minibus for the day.

Work out the total cost of hiring enough minibuses for everyone to go on the trip.

£.....

(Total for Question 14 is 3 marks)

15 Ali, Ben and Cal share some sweets in the ratio 2 : 3 : 7

Cal gets 20 more sweets than Ben.

How many sweets does Ali get?

.....

(Total for Question 15 is 3 marks)

TOTAL FOR PAPER IS 40 MARKS