CALC H

GCSE Mathematics · Foundation Tier

40 marks · 45 minutes · Calculator

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

Answer all questions. Show all your working. Calculators may be used. Diagrams are NOT accurately drawn.

1 Write down the reciprocal of 8

.....

(Total for Question 1 is 1 mark)

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2 Write 2836.47 correct to 1 significant figure.

.....

(Total for Question 2 is 1 mark)

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3 Work out $\frac{4.8^2 + \sqrt{19.36}}{2.5}$

Write down all the figures on your calculator display.

.....

(Total for Question 3 is 2 marks)

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4 There are 80 students in Year 11. 36 of them walk to school.

(a) Write 36 as a percentage of 80

..... %

(2)

(b) Write the ratio 36 : 80 in its simplest form.

.....

(1)

(Total for Question 4 is 3 marks)

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5 Solve $3(x + 4) = 27$

$x =$ .....

(Total for Question 5 is 2 marks)

6 $T = 5x^2 - 3y$

Work out the value of T when $x = -4$ and $y = 2.5$

$T =$ .....

(Total for Question 6 is 2 marks)

7 The diagram shows a flower bed. It is made from a rectangle and a semicircle.



Diagram NOT accurately drawn

Tia is going to cover the flower bed with compost. One bag of compost covers 8 m^2.

How many bags of compost does Tia need?

.....

(Total for Question 7 is 3 marks)

8 Here are the scores of Team B in six quiz rounds.

18 31 22 27 26 20

(a) Work out the mean score for Team B.

.....

(2)

In the same six rounds, Team A had a mean score of 21 and a range of 19

(b) Compare the scores of Team A and Team B.

.....

.....

.....

(2)

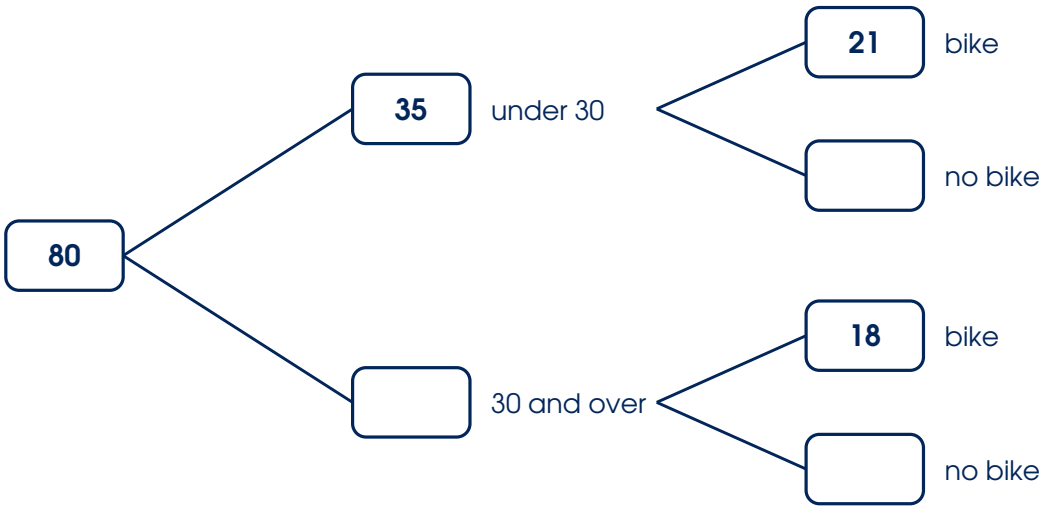
(Total for Question 8 is 4 marks)

9 80 people were asked if they own a bike.

35 of the people were under 30. 21 of the people under 30 own a bike.

18 of the people aged 30 and over own a bike.

(a) Complete the frequency tree.



(2)

One of the people who own a bike is chosen at random.

(b) Find the probability that this person is under 30

.....

(1)

(Total for Question 9 is 3 marks)

10 Shona buys a car for £14 500. The value of the car goes down by 12% each year.

Shona says, "After 3 years my car will be worth less than £10 000"

Is Shona correct? You must show how you get your answer.

(Total for Question 10 is 3 marks)

11 Triangle *ABC* is similar to triangle *PQR*.

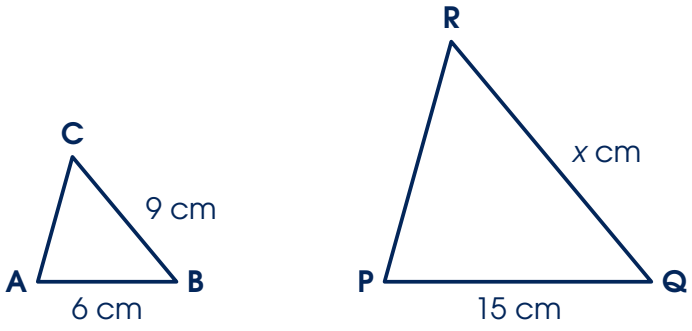


Diagram NOT accurately drawn

Work out the value of *x*.

x = ...

(Total for Question 11 is 2 marks)

12 The bearing of *B* from *A* is 064°

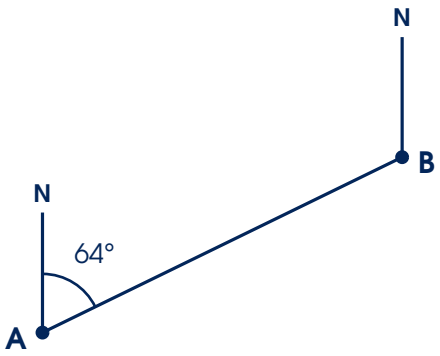


Diagram NOT accurately drawn

Mo says, "The bearing of *A* from *B* is 296°"

Mo is wrong. Work out the bearing of *A* from *B*.

..... °

(Total for Question 12 is 2 marks)

13 A number, *y*, is truncated to 1 decimal place. The result is 4.8

Write down the error interval for *y*.

.....

(Total for Question 13 is 2 marks)

14 Ella mixes red, blue and white paint.

red : blue = 2 : 3 blue : white = 4 : 5

Ella uses 600 ml of white paint.

How much red paint does she use?

..... ml

(Total for Question 14 is 3 marks)

15 Ben wants a phone contract for 24 months. Here are two plans.

	Plan A	Plan B
Cost to start	£45	£260
Cost each month	£18	£9.50

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

Plan ..... by £.....

(Total for Question 15 is 3 marks)

16 The diagram shows a rectangle.

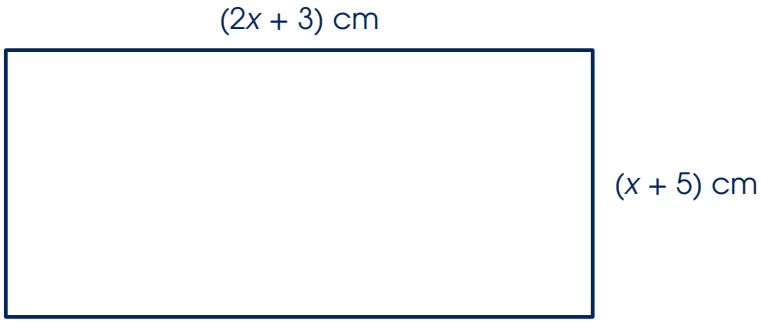


Diagram NOT accurately drawn

The perimeter of the rectangle is 46 cm.

Work out the area of the rectangle.

..... cm^2

(Total for Question 16 is 4 marks)

TOTAL FOR PAPER IS 40 MARKS