CALC A

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 Round 6.4827 to 1 decimal place.

.....

(Total for Question 1 is 1 mark)

---

2 Write down a factor of 18 that is greater than 6

.....

(Total for Question 2 is 1 mark)

---

3 **(a)** Write 4.7×10^5 as an ordinary number.

.....

(1)

(b) Write 0.00036 in standard form.

.....

(1)

(Total for Question 3 is 2 marks)

---

4 The table shows the number of goals a hockey team scored in each of 24 matches.

Goals scored	0	1	2	3	4
Frequency	5	8	6	3	2

(a) Write down the mode.

.....

(1)

Ravi says, "The median number of goals is 2"

(b) Is Ravi correct? Give a reason for your answer.

.....

(1)

(c) Work out the mean number of goals scored per match.

.....

(2)

(Total for Question 4 is 4 marks)

5 A games console costs £240. In a sale, the price is reduced by 15%

Work out the sale price of the games console.

£.....

(Total for Question 5 is 2 marks)

---

6 **(a)** Expand $4(2x - 5)$

.....

(1)

(b) Factorise $6y + 15$

.....

(1)

(Total for Question 6 is 2 marks)

---

7 A circular rug has a diameter of 1.8 m.

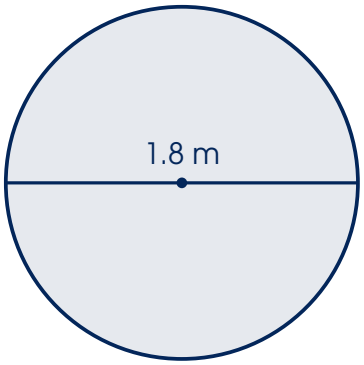


Diagram NOT accurately drawn

Lou is going to sew a border all the way round the edge of the rug.

The border costs £3.20 per metre.

Work out the cost of the border. Give your answer to the nearest penny.

£.....

(Total for Question 7 is 3 marks)

8 80 students were asked how they travel to school. Some of the results are shown.

	Walk	Bus	Car	Total
Year 10	18		10	40
Year 11		20		
Total	32		16	80

(a) Complete the two-way table.

(2)

One of the 80 students is chosen at random.

(b) Write down the probability that this student travels by bus.

.....

(1)

(Total for Question 8 is 3 marks)

9 Solve $7x - 4 = 3x + 18$

$x =$ .....

(Total for Question 9 is 2 marks)

10 A train leaves Leeds at 09 40 and arrives in Newcastle at 11 25

The train travels 186 km.

Work out the average speed of the train. Give your answer in km/h.

..... km/h

(Total for Question 10 is 3 marks)

11

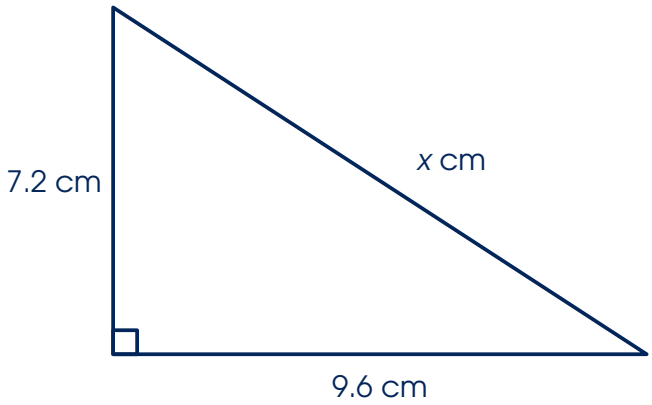


Diagram NOT accurately drawn

Work out the value of x.

$x =$ .....

(Total for Question 11 is 3 marks)

12 The cost, £C, of hiring a bike for h hours is given by the formula

C = 4h + 7.5

(a) Work out the cost of hiring a bike for 3.5 hours.

£.....

(1)

Sam paid £33.50 to hire a bike.

(b) For how many hours did Sam hire the bike?

..... hours

(2)

(Total for Question 12 is 3 marks)

13 Ali invests £3500 for 4 years at 2.8% per year compound interest.

Bea invests £3500 for 4 years at 3.1% per year simple interest.

Who will have more money at the end of the 4 years?

You must show all your working.

(Total for Question 13 is 4 marks)

14 A number 12 bus leaves the bus station every 20 minutes.

A number 30 bus leaves the bus station every 12 minutes.

Both buses leave the bus station at 7 15 am.

When will both buses next leave the bus station at the same time?

.....

(Total for Question 14 is 3 marks)

15 The diagram shows a water tank in the shape of a cuboid.

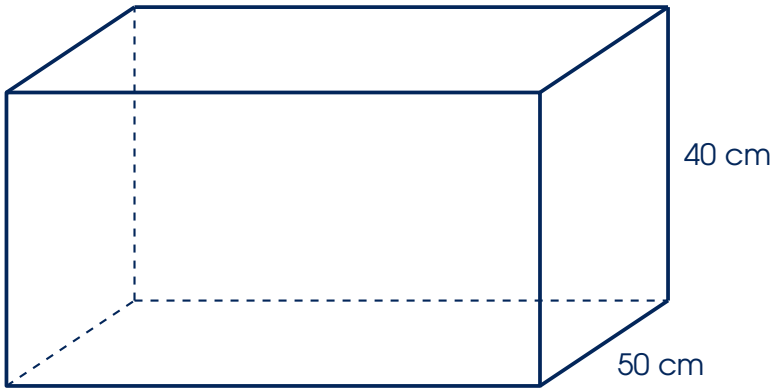


Diagram NOT accurately drawn

The tank is empty. Water flows into the tank at 6 litres per minute.

1 litre = 1000 cm^3

How many minutes will it take to fill the tank to $\frac{3}{4}$ of its height?

..... minutes

(Total for Question 15 is 4 marks)

TOTAL FOR PAPER IS 40 MARKS