CALC 1

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

0.6 **0.065** **0.56** **0.605**

.....

(Total for Question 1 is 1 mark)

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2 Work out 17.5% of £64

£.....

(Total for Question 2 is 2 marks)

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

.....

(1)

(b) Expand $x(x - 7)$

.....

(1)

(Total for Question 3 is 2 marks)

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4 A film starts at 19:45. The film lasts 2 hours 25 minutes.

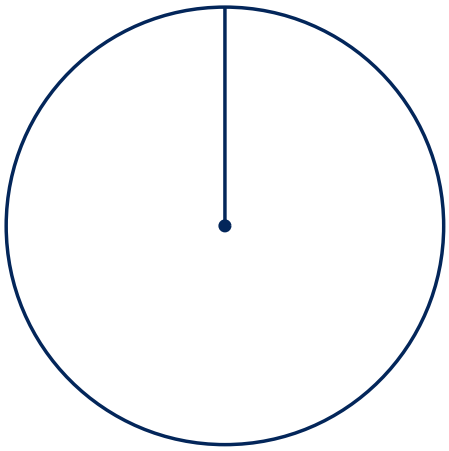
What time does the film finish? Give your answer using the 12-hour clock.

.....

(Total for Question 4 is 2 marks)

5 The table shows how 60 students travel to school.

Transport	Walk	Bus	Car	Cycle
Frequency	22	18	15	5



Draw an accurate pie chart to show this information.

(Total for Question 5 is 3 marks)

6 Solve $7 - 2x = 3x + 22$

$x =$ .....

(Total for Question 6 is 2 marks)

7

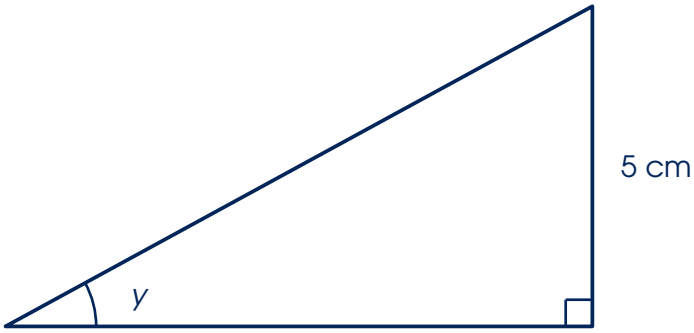


Diagram NOT accurately drawn

Work out the size of angle y. Give your answer correct to 1 decimal place.

..... °

(Total for Question 7 is 2 marks)

8 Here are the first five terms of a sequence.

2 6 12 20 30

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

.....

(1)

Ravi says, "110 is a term in this sequence."

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

.....

.....

(1)

(Total for Question 8 is 2 marks)

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

The table shows some of the probabilities.

Colour	Red	Blue	Green	Yellow
Probability	0.35	0.2	x	$2x$

Work out the probability that the spinner lands on yellow.

.....

(Total for Question 9 is 3 marks)

10 Here are the ingredients needed to make 8 pancakes.

Ingredients for 8 pancakes
120 g flour
2 eggs
300 ml milk

Josh has 400 g of flour, 5 eggs and 1 litre of milk.

What is the greatest number of pancakes Josh can make?

.....

(Total for Question 10 is 3 marks)

11 **(a)** Write 0.00042 in standard form.

.....

(1)

(b) Work out $(6.3 \times 10^8) \div (1.8 \times 10^3)$

Give your answer in standard form.

.....

(2)

(Total for Question 11 is 3 marks)

12 The diagram shows a triangular prism. The cross-section is a right-angled triangle.

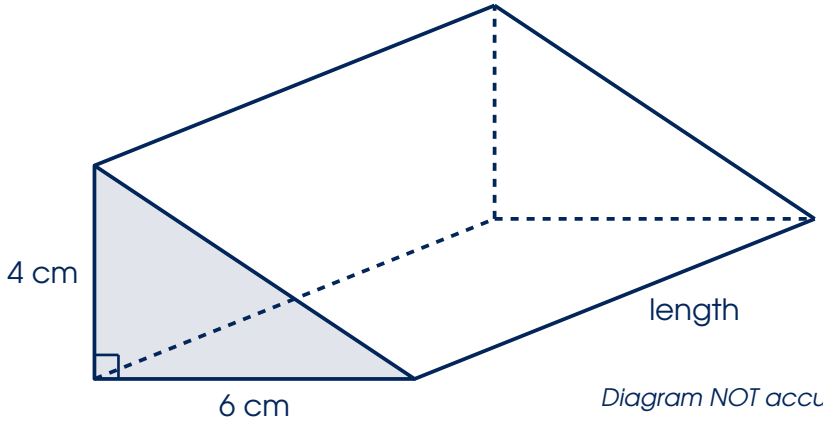


Diagram NOT accurately drawn

The volume of the prism is 180 cm^3.

Work out the length of the prism.

..... cm

(Total for Question 12 is 3 marks)

13 Pia has two ribbons. One is 84 cm long and the other is 120 cm long.

She cuts both ribbons into pieces that are all the same length, with no ribbon left over.

The pieces must be as long as possible. How long is each piece?

..... cm

(Total for Question 13 is 2 marks)

14 Ali is x years old. Ben is 3 years older than Ali. Cara is twice as old as Ben.
The total of their three ages is 61 years.
How old is Cara?

..... years

(Total for Question 14 is 3 marks)

15 Eve has £5000 to invest for 5 years. She can choose one of these accounts.

Account A	Account B
3% simple interest per year	2.8% compound interest per year

Which account will give Eve more money after 5 years, and by how much?
You must show all your working.

Account ..... by £.....

(Total for Question 15 is 4 marks)

16 A flag is in the shape of a right-angled triangle.

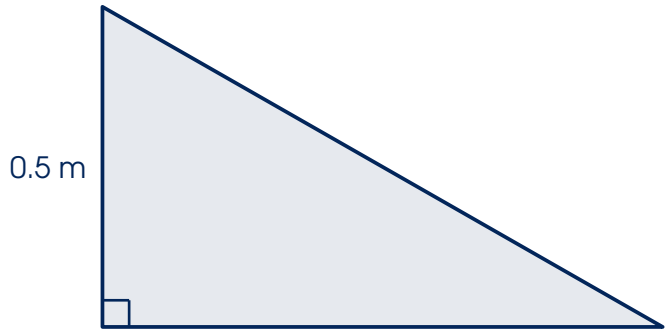


Diagram NOT accurately drawn

Ribbon is sewn around all three edges of the flag. Ribbon costs £1.60 per metre.

Work out the cost of the ribbon needed.

£.....

(Total for Question 16 is 3 marks)

TOTAL FOR PAPER IS 40 MARKS