NON-CALC H

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 $7 + 3 \times 4$

.....

(Total for Question 1 is 1 mark)

---

2 **(a)** Write $\frac{3}{8}$ as a decimal.

.....

(1)

(b) Write 0.07 as a fraction.

.....

(1)

(Total for Question 2 is 2 marks)

---

3 **(a)** Simplify $3p \times 4q$

.....

(1)

(b) Factorise $6x + 15$

.....

(1)

(Total for Question 3 is 2 marks)

---

4 A map has a scale of 1 cm to 5 km.

(a) Two towns are 7 cm apart on the map. Work out the real distance between the towns.

..... km

(1)

(b) Two villages are 12 km apart. How far apart are they on the map?

..... cm

(1)

(Total for Question 4 is 2 marks)

5 The pictogram shows the number of library books borrowed on Monday, Tuesday and Wednesday.

Monday	
Tuesday	
Wednesday	
Thursday	

 represents 8 books

(a) How many books were borrowed on Monday?

.....

(1)

6 books were borrowed on Thursday.

(b) Complete the pictogram.

(1)

(Total for Question 5 is 2 marks)

6 In a school choir there are 18 boys and 24 girls.

(a) Write down the ratio of boys to girls. Give your ratio in its simplest form.

.....

(1)

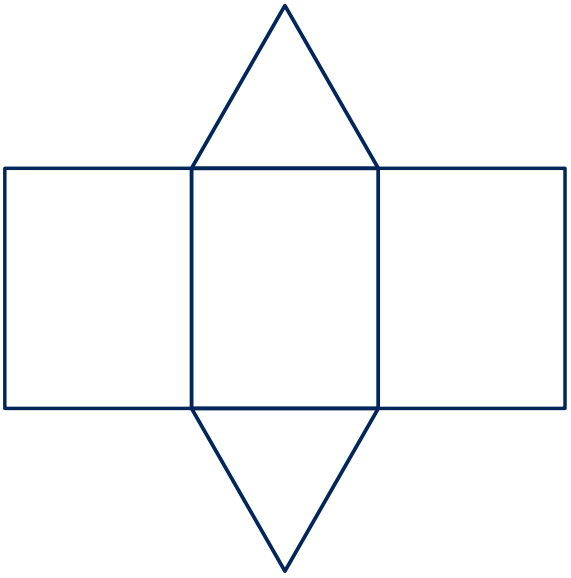
(b) What fraction of the choir are boys?

.....

(1)

(Total for Question 6 is 2 marks)

7 Here is the net of a 3D shape.



(a) Write down the name of the 3D shape.

.....

(1)

Sophie says, "The 3D shape has 9 edges."

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

.....

(1)

(Total for Question 7 is 2 marks)

8 The price of a bike increased from £250 to £280

Zac says, "The price increased by 30%."

Is Zac correct? You must show your working.

(Total for Question 8 is 2 marks)

9 Spinner A is numbered 1, 2 and 3. Spinner B is numbered 2, 4, 6 and 8

Both spinners are fair. Raj spins both spinners and adds the two numbers to get a total.

Spinner A \ Spinner B	2	4	6	8
1	3	5		9
2	4		8	
3		7		

(a) Complete the table of totals.

(1)

(b) Find the probability that the total is 7

.....

(1)

(c) Find the probability that the total is greater than 8

.....

(1)

(Total for Question 9 is 3 marks)

10 **(a)** Expand and simplify $(x + 4)(x - 2)$

.....

(2)

(b) Factorise $x^2 + 7x + 12$

.....

(2)

(Total for Question 10 is 4 marks)

11

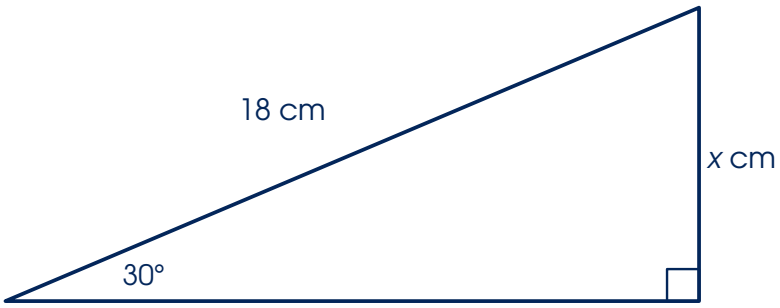


Diagram NOT accurately drawn

Given that $\sin 30° = \frac{1}{2}$, work out the value of x.

$x =$ .....

(Total for Question 11 is 2 marks)

12 The diagram shows a triangle. All angles are in degrees.

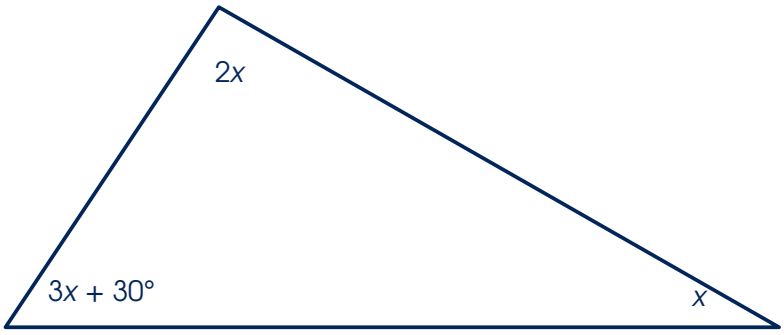


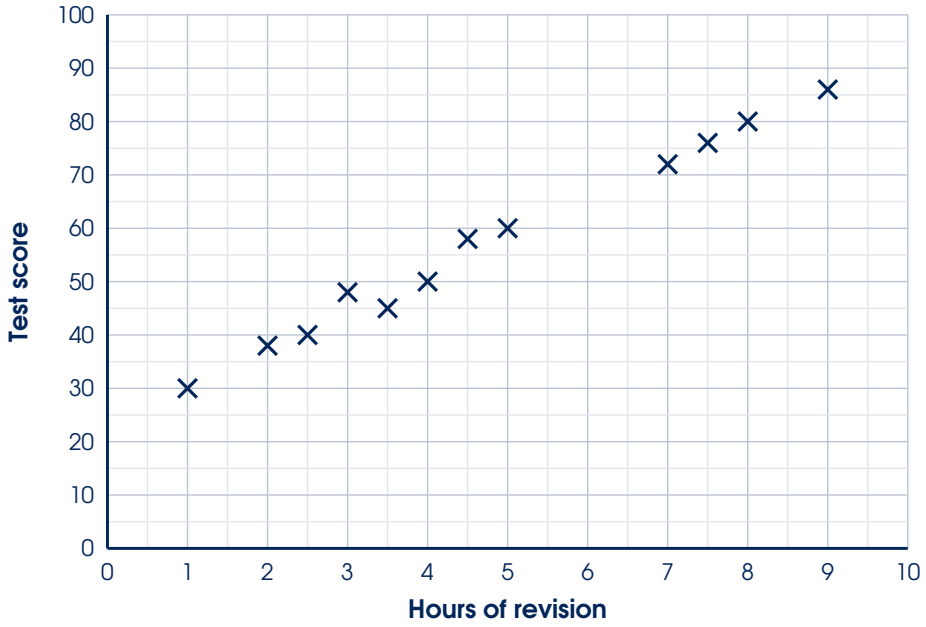
Diagram NOT accurately drawn

Work out the size of the largest angle in the triangle.

..... °

(Total for Question 12 is 3 marks)

13 The scatter graph shows the number of hours some students spent revising and their test scores.



(a) What type of correlation does the scatter graph show?

.....

(1)

Ben revised for 6 hours.

(b) Use the scatter graph to estimate Ben's test score.

.....

(2)

(Total for Question 13 is 3 marks)

14 Kim spends $\frac{1}{3}$ of her money on a game and $\frac{1}{4}$ of her money on a book.

She has £25 left.

How much money did Kim have to start with?

£.....

(Total for Question 14 is 3 marks)

15 Ella has 24 red beads and 36 blue beads.

She uses all the beads to make some bracelets.

Each bracelet has the same number of red beads and the same number of blue beads.

What is the greatest number of bracelets Ella can make?

.....

(Total for Question 15 is 3 marks)

16 Lily mixes red paint and white paint in the ratio 2 : 3 to make pink paint.

She needs 4 litres of pink paint.

Red paint is sold in 0.5 litre tins. Each tin costs £4

White paint is sold in 1 litre tins. Each tin costs £5

Work out the least amount Lily needs to spend to buy the paint.

£.....

(Total for Question 16 is 4 marks)

TOTAL FOR PAPER IS 40 MARKS