Name ..... Class .....

Non-Calculator Crossover Paper 1

GCSE Mathematics · Foundation and Higher

40 marks · 45 minutes · Non-Calculator

1 Work out an estimate for the value of $\frac{41.8 \times 9.7}{0.48}$

..... **(2)**

[Question 1: 2 marks]

2 (a) Work out $2\frac{1}{3} \times 1\frac{4}{5}$

Give your answer as a mixed number in its simplest form.

..... **(2)**

(b) Work out $3\frac{1}{2} - 1\frac{2}{3}$

..... **(2)**

[Question 2: 4 marks]

3 (a) Write 84 as a product of its prime factors.

..... **(2)**

(b) Find the lowest common multiple (LCM) of 84 and 120.

..... **(2)**

[Question 3: 4 marks]

4 A coat normally costs £80.
In a sale, the price of the coat is reduced by 35%.
On the last day of the sale, the sale price is reduced by a further 10%.
Work out the price of the coat on the last day of the sale.

£..... **(3)**

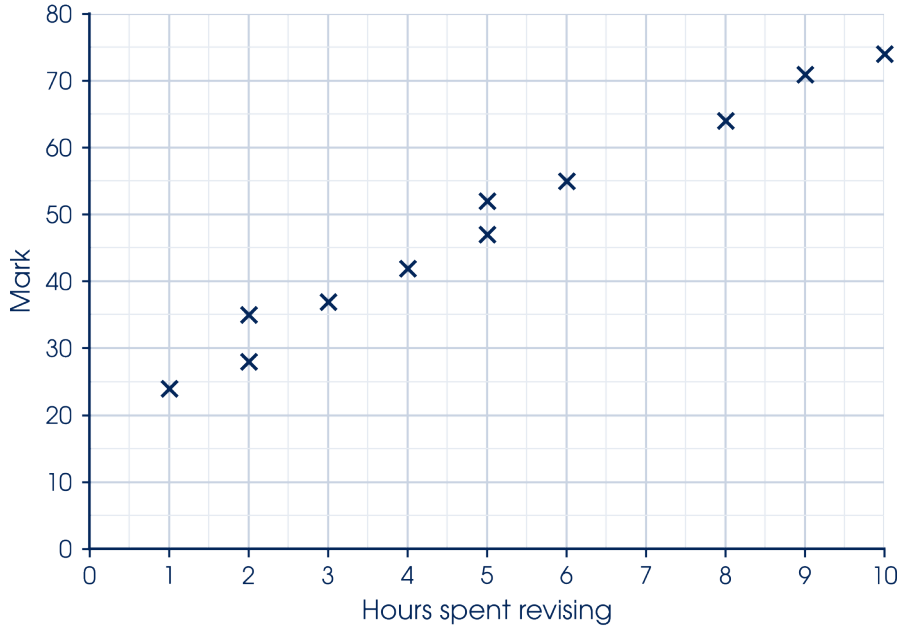
[Question 4: 3 marks]

5 Amira, Ben and Chloe share some money in the ratio 2 : 3 : 5
Ben gets £48 more than Amira.
How much money does Chloe get?

£..... **(3)**

[Question 5: 3 marks]

6 The scatter graph shows the number of hours some students spent revising for a test and the mark each student got in the test.



(a) Describe the type of correlation shown on the scatter graph.

.....

(1)

(b) Another student spent 7 hours revising.

By drawing a suitable line, estimate the mark this student got.

.....

(2)

[Question 6: 3 marks]

7 Here are the first four terms of an arithmetic sequence.

5 11 17 23

(a) Find an expression, in terms of n, for the nth term of this sequence.

..... **(2)**

(b) Is 140 a term in this sequence?

You must give a reason for your answer.

.....

..... **(1)**

[Question 7: 3 marks]

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

The table shows the probabilities that the spinner will land on red and on blue.

Colour	red	blue	green	yellow
Probability	0.32	0.2	x	$2x$

The probability that the spinner lands on yellow is twice the probability that it lands on green.

Work out the value of x.

$x =$ ..... **(2)**

[Question 8: 2 marks]

9 Solve $5(x - 2) = 2x + 11$

$x =$ ..... **(3)**

[Question 9: 3 marks]

10 *APB* and *QRS* are parallel straight lines.

PQR is a triangle.

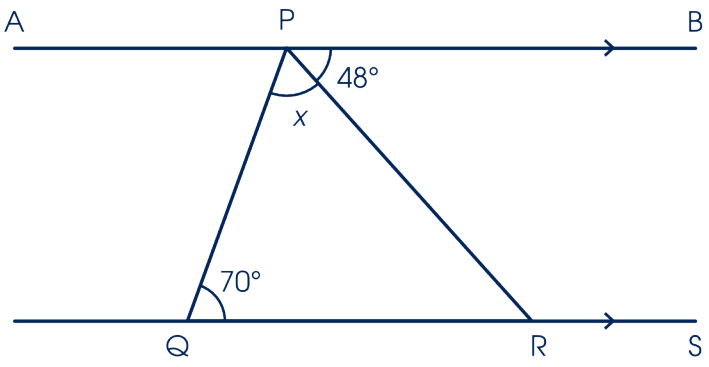


Diagram NOT accurately drawn

Work out the size of the angle marked *x*.

Give a reason for each stage of your working.

..... ° **(3)**

[Question 10: 3 marks]

11 (a) Factorise fully $12y^2 + 18y$

..... **(2)**

(b) Factorise $x^2 + 2x - 15$

..... **(2)**

[Question 11: 4 marks]

12 The shape is made from a rectangle and a semicircle.



Diagram NOT accurately drawn

Work out the area of the shape.

Give your answer in terms of π.

..... cm^2 **(3)**

[Question 12: 3 marks]

13 (a) Write 0.000 504 in standard form.

..... **(1)**

(b) Work out $(6 \times 10^5) \times (4 \times 10^{-2})$

Give your answer in standard form.

..... **(2)**

[Question 13: 3 marks]

TOTAL FOR PAPER IS 40 MARKS