Centre No.						Paper Reference								Surname	Initial(s)
Candidate No.						5	3	8	4	F	/	1	2	F	Signature

Paper Reference(s)

5384F/12F

Examiner's use only

Team Leader's use only

Edexcel GCSE

Mathematics (Modular) – 2381

Paper 12 (Calculator)

Foundation Tier

Unit 3

Friday 12 November 2010 – Morning

Time: 1 hour

Materials required for examination
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser, calculator.
Tracing paper may be used.

Items included with question papers
Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initials and signature.
Check that you have the correct question paper.
Answer ALL the questions. Write your answers in the spaces provided in this question paper.
You must NOT write on the formulae page.
Anything you write on the formulae page will gain NO credit.
If you need more space to complete your answer to any question, use additional answer sheets.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. **(2)**.
There are 22 questions in this question paper. The total mark for this paper is 60.
There are 20 pages in this question paper. Any blank pages are indicated.
Calculators may be used.
If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Advice to Candidates

Show all stages in any calculations.
Work steadily through the paper. Do not spend too long on one question.
If you cannot answer a question, leave it and attempt the next one.
Return at the end to those you have left out.

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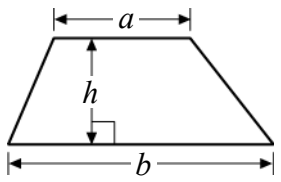
GCSE Mathematics 2381

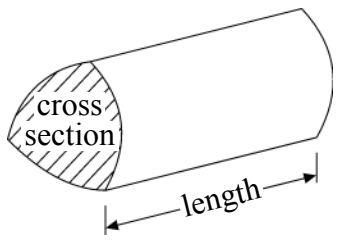
Formulae: Foundation Tier

You must not write on this formulae page.
Anything you write on this formulae page will gain NO credit.

Area of trapezium = $\frac{1}{2}(a+b)h$



Volume of prism = area of cross section × length



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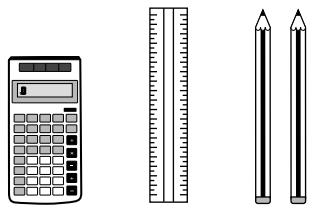
Answer ALL TWENTY TWO questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

1. Melissa buys

1 calculator at £4.38
1 ruler at 45p
2 pencils at 29p each



She pays with a £10 note.

Work out how much change Melissa should get.

£ .....

Q1

(Total 3 marks)

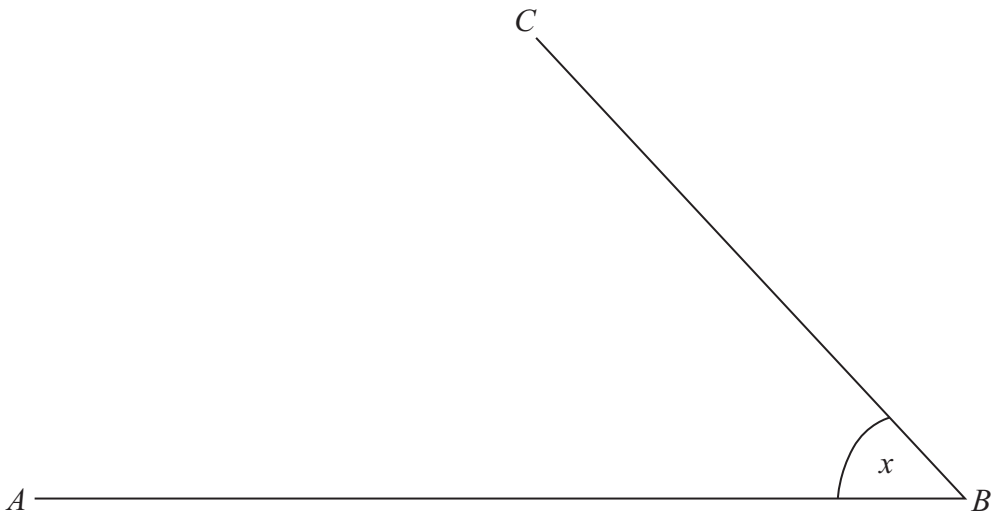
2. In the space below, sketch a cuboid.

Q2

(Total 1 mark)

Leave blank

3.



(a) Measure the length of the line AB.
Give the units with your answer.

.....

(2)

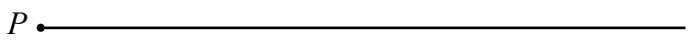
(b) Measure the size of the angle marked x.

°

.....

(1)

(c) On the line, draw an angle of 75° at the point P.



(1) **Q3**

(Total 4 marks)

Leave blank

4. 32 litres of fuel cost £29.76

Work out the cost of 1 litre of fuel.
Give your answer in pence.

..... pence

Q4

(Total 3 marks)

5. Fiona uses this rule to work out her pay.

Pay = £5.85 × number of hours worked

In one week Fiona worked 15 hours.

(a) Use the rule to work out Fiona's pay.

£ .....

(2)

In another week Fiona's pay was £134.55

(b) Work out the number of hours she worked.

..... hours

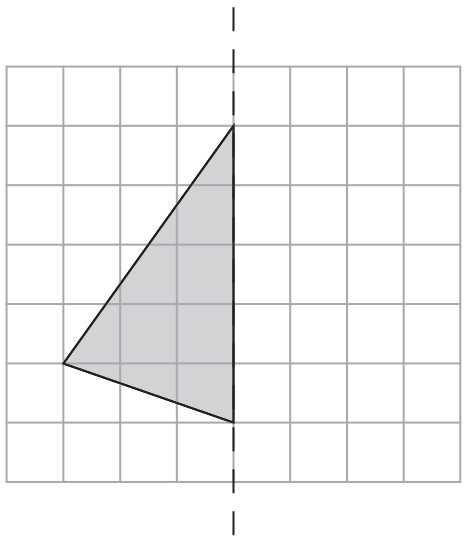
(2)

Q5

(Total 4 marks)

Leave blank

6. On the grid, reflect the shaded shape in the mirror line.



Q6

(Total 1 mark)

7. There are 11 children in a room.

6 of the children are girls.

(a) What fraction of the children are girls?

.....

(1)

2 of the boys are sitting down.

(b) What fraction of the boys are sitting down?

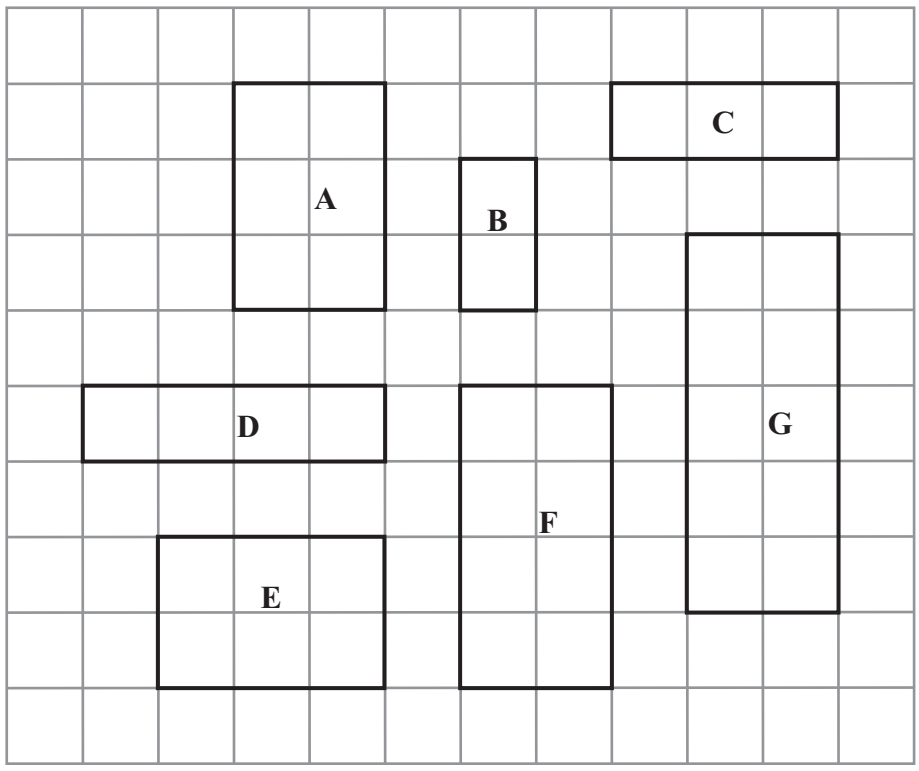
.....

(1) **Q7**

(Total 2 marks)

Leave blank

8. Here are some rectangles on a grid of centimetre squares.



Two of the rectangles are congruent.

(a) Write down the letters of these two rectangles.

..... and .....

(1)

Rectangle **F** is an enlargement of rectangle **B**.

(b) Write down the scale factor of the enlargement.

.....

(1)

Q8

(Total 2 marks)

Leave blank

9. (a) Write the fraction $\frac{1}{2}$ as a percentage.

..... %
(1)

(b) Write 20% as a fraction.
Give your fraction in its simplest form.

.....
(2)

(c) Work out $\frac{1}{3}$ of £21.96

£ .....
(1)

Q9

(Total 4 marks)

10. (a) Solve $6x = 30$

$x =$ .....
(1)

(b) Solve $17 - y = 14$

$y =$ .....
(1)

Q10

(Total 2 marks)

Leave blank

11. Here is a sketch of a rectangle.

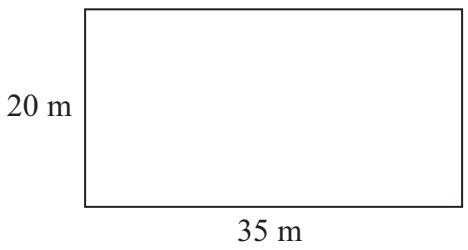


Diagram **NOT** accurately drawn

The lengths of the sides of the rectangle are given in metres.

Make an accurate scale drawing of the rectangle.
Use a scale of 1 cm to 5m.

Q11

(Total 2 marks)

Leave blank

12. Kumal wrote down the reading on his electricity meter at the beginning of January and at the end of January.
The table gives information about these readings.

	Meter reading (units)
End of January	5986
Beginning of January	4176

Kumal pays 13.9p for each unit of electricity he uses.

Work out how much Kumal pays for the electricity he used in January.

.....

Q12

(Total 4 marks)

Leave blank

13. The table gives information about the temperatures in 5 cities at 6 am one day in December.

City	Temperature (°C)
Southampton	3
Glasgow	–8
London	0
Cardiff	–5
Manchester	–2

(a) Write down the city with the lowest temperature.

.....

(1)

(b) Work out the difference in temperature between Southampton and Manchester.

..... °C

(1)

By noon the temperature in Cardiff had increased by 7°C.

(c) Work out the temperature in Cardiff at noon.

..... °C

(1)

Q13

(Total 3 marks)

Leave blank

14. The diagram shows a quadrilateral.

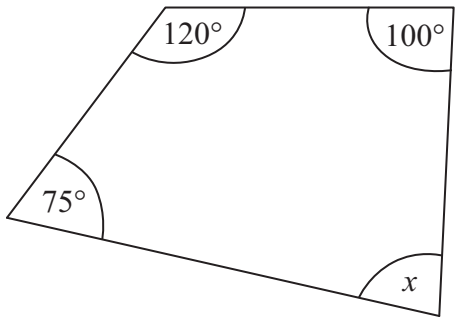


Diagram **NOT** accurately drawn

(i) Work out the size of the angle marked x.

.....°

(ii) Give a reason for your answer.

.....

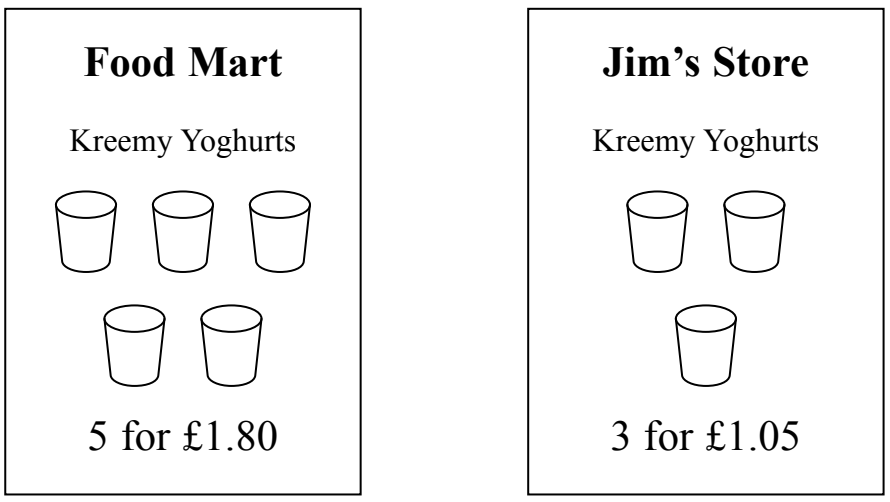
.....

Q14

(Total 3 marks)

Leave blank

15. Two shops, Food Mart and Jim's Store, both sell Kreemy Yoghurts.



At which shop are Kreemy Yoghurts the better value for money?
You must show all your working.

.....

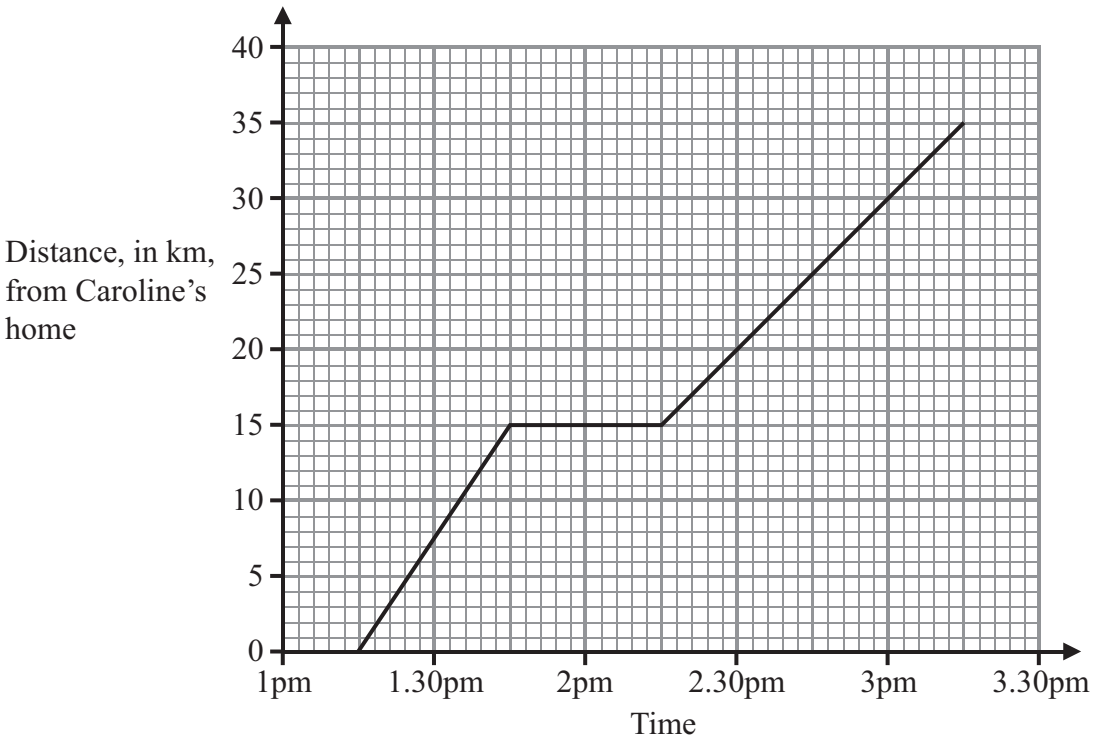
Q15

(Total 3 marks)

Turn over

Leave blank

16. Caroline travelled 35 km from her home to her friend's house.
The travel graph represents her journey.



(a) Write down the time that Caroline left home.

.....
(1)

(b) How far was Caroline from her home at 3pm?

..... km
(1)

At 1.45pm Caroline stopped for a rest.

(c) For how many minutes did Caroline rest?

..... minutes
(1)

Q16

(Total 3 marks)

Leave blank

17. (a) Solve $2x + 3 = 10$

$x =$ .....

(2)

(b) Simplify

(i) $c^5 \times c^6$

.....

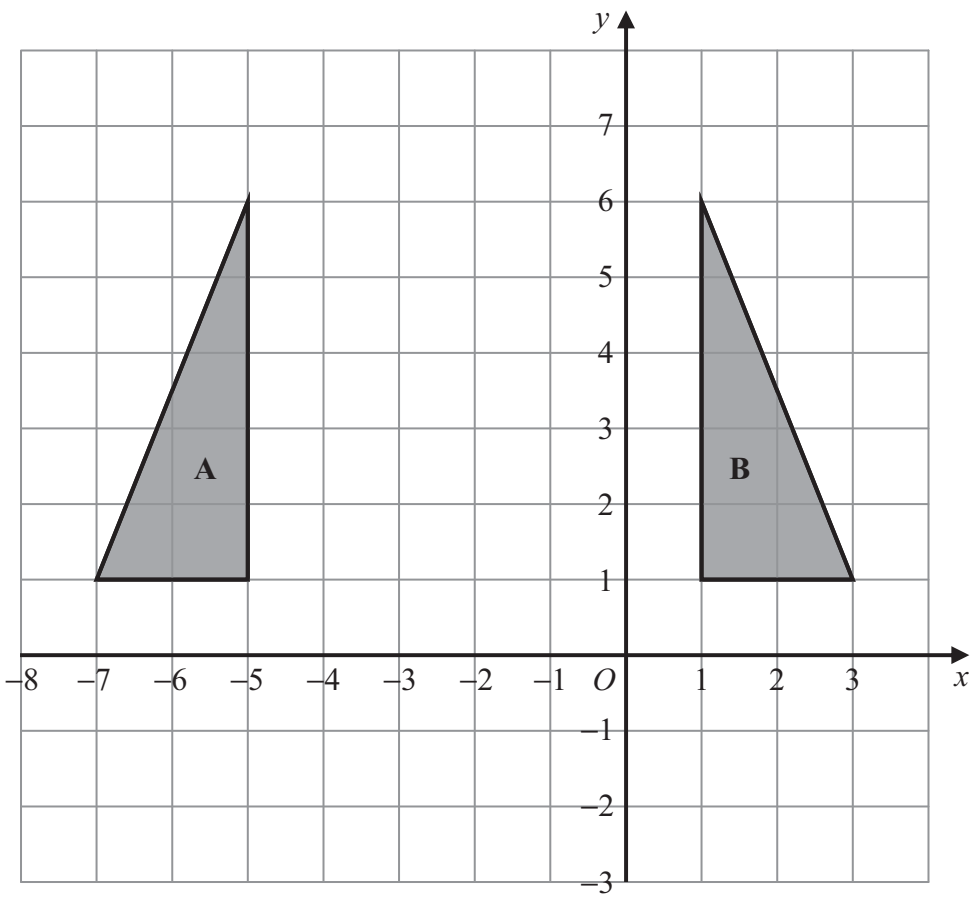
(ii) $e^{12} \div e^4$

.....

(2) **Q17**

(Total 4 marks)

18.



Describe fully the single transformation that will map triangle **A** onto triangle **B**.

.....

..... **Q18**

(Total 2 marks)

Turn over

Leave blank

19. Use your calculator to work out

$$\frac{13.7 + 5.86}{2.54 \times 3.17}$$

Write down all the figures on your calculator display.
You must give your answer as a decimal.

.....

Q19

(Total 2 marks)

20. $W = n^3 - 5$

(a) (i) Work out the value of W when $n = 2$

$W =$ .....

(ii) Work out the value of W when $n = -1$

$W =$ .....

(2)

(b) Raji says

"when $x = 1.5$ the value of $4x^2$ is 36"

He is **wrong**.
Explain why.

.....

.....

(1)

Q20

(Total 3 marks)

Leave blank

21. Carmen and Dave share £60 in the ratio 3 : 5

Work out how much money they each get.

Carmen £ .....

Dave £ **Q21**

(Total 2 marks)

22.

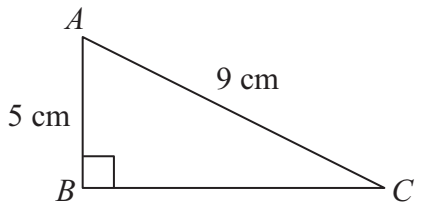


Diagram **NOT** accurately drawn

ABC is a right-angled triangle.
AB = 5 cm.
AC = 9 cm.

Work out the length of *BC*.
Give your answer to 2 decimal places.

..... cm **Q22**

(Total 3 marks)

TOTAL FOR PAPER: 60 MARKS

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