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

Paper Reference(s)

5384F/11F

Examiner's use only

Team Leader's use only

Edexcel GCSE

Mathematics (Modular) – 2381

Paper 11 (Non-Calculator)

Foundation Tier

Unit 3

Wednesday 9 November 2011 – Afternoon

Time: 1 hour

Materials required for examination
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.
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 20 questions in this question paper. The total mark for this paper is 60.
There are 16 pages in this question paper. Any blank pages are indicated.
Calculators must not be used.

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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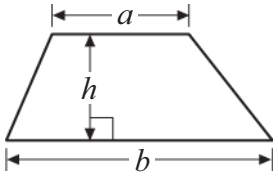
GCSE Mathematics 2381

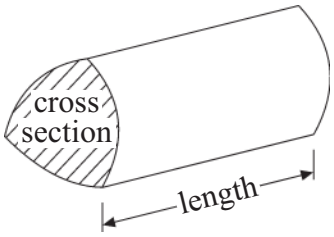
Formulae: Foundation Tier

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 questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

You must NOT use a calculator.

1. At the beginning of term a school had 960 students.
By the end of term 23 students had left
and 16 students had joined the school.

(a) How many students did the school have at the end of the term?

.....

(2)

$\frac{1}{4}$ of the students in Year 7 went on a trip.

(b) Write $\frac{1}{4}$ as a percentage.

..... %

(1)

Q1

(Total 3 marks)

2. Work out the value of

(i) $4 - 9$

.....

(ii) -3×-5

.....

Q2

(Total 2 marks)

Leave blank

3. Here is part of a train timetable.

Peterborough	16 18	17 18	18 18	18 59
Whittlesea	–	17 26	–	–
March	16 34	17 37	18 34	19 15
Manea	–	17 45	–	–
Ely	16 53	17 59	18 53	19 33
Cambridge	17 08	18 16	19 08	19 55

A train leaves Whittlesea at 17 26

(a) At what time should this train get to Cambridge?

.....

(1)

The 18 59 train from Peterborough takes more time to get to Cambridge than the 18 18 train from Peterborough.

(b) Work out how many minutes more.

..... minutes

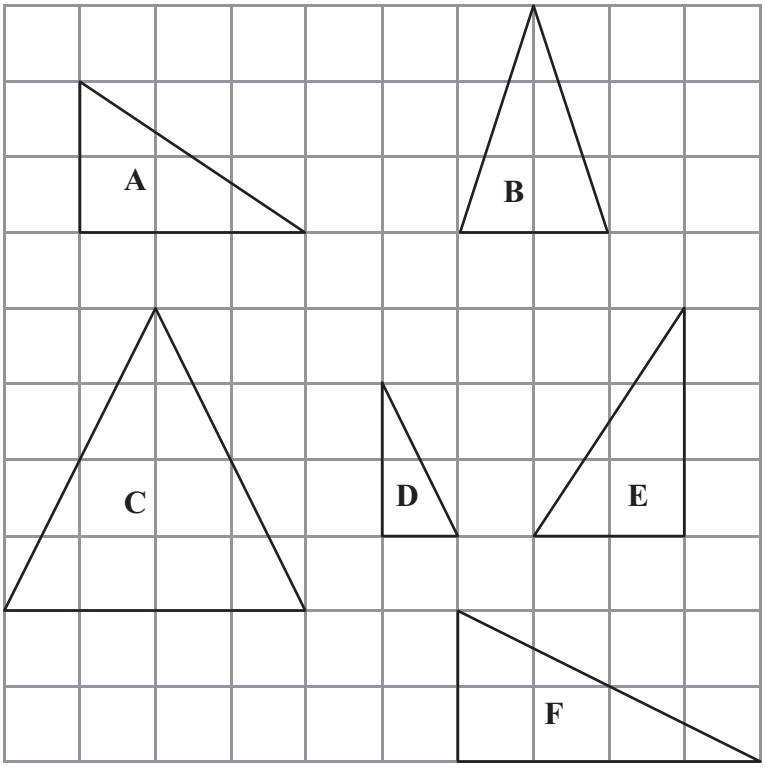
(2)

Q3

(Total 3 marks)

Leave blank

4. Here are some triangles drawn on a square grid.



Two of the triangles are congruent.

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

..... and .....

(1)

One of the triangles is an enlargement of another of the triangles.

(b) Write down the letters of these two triangles.

..... and .....

(1)

Two of the triangles each have one line of symmetry.

(c) Write down the letters of these two triangles.

..... and .....

(1)

Q4

(Total 3 marks)

Leave blank

5. (a) Work out 564 – 128

.....

(2)

(b) Work out 4 × 7 × 5

.....

(2) **Q5**

(Total 4 marks)

6. (a) Work out $\frac{1}{4}$ of £24

£ .....

(1)

(b) Work out 10% of 400 kg.

..... kg

(1) **Q6**

(Total 2 marks)

Leave blank

7. Egle thinks of a number.

She subtracts 7 from the number.
She then divides the result by 3

Her answer is 21

What number did Egle first think of?

.....

Q7

(Total 2 marks)

8.

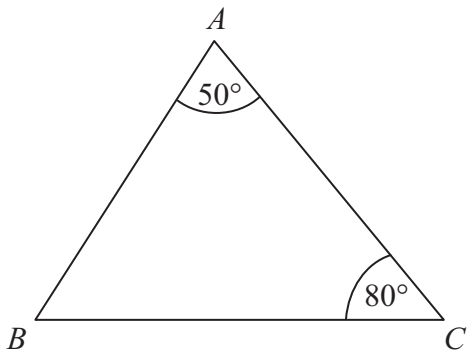


Diagram **NOT** accurately drawn

Triangle *ABC* is isosceles.
Explain why.

.....

.....

Q8

(Total 2 marks)

Leave blank

9. Bill has two parcels on a trolley.
The first parcel weighs 3.45 kg.
The second parcel weighs 1.8 kg.

Bill cannot put more than a total weight of 10 kg on the trolley.

Bill puts a third parcel on the trolley.

Work out the largest possible weight of the third parcel.

..... kg

(Total 3 marks)

Q9

10. (a) Simplify $h \times h \times h \times h$

.....

(1)

(b) $x = 5$ and $y = \frac{1}{2}$

Work out the value of

(i) $4x + 2y$

.....

(ii) $10 - x^2$

.....

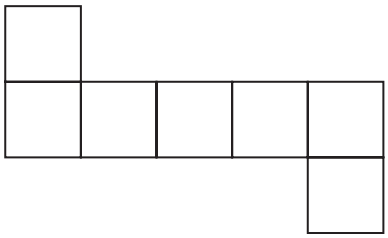
(3)

(Total 4 marks)

Q10

Leave blank

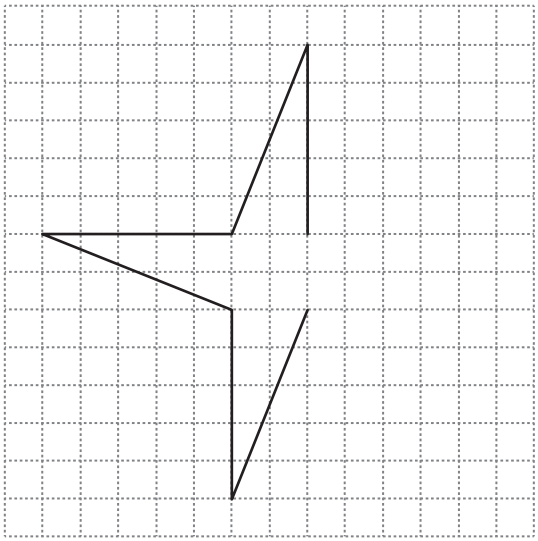
11. (a) This shape has rotational symmetry.



Mark with a cross (×) the centre of rotation.

(1)

(b)



Complete this shape so that it has rotational symmetry of order 4

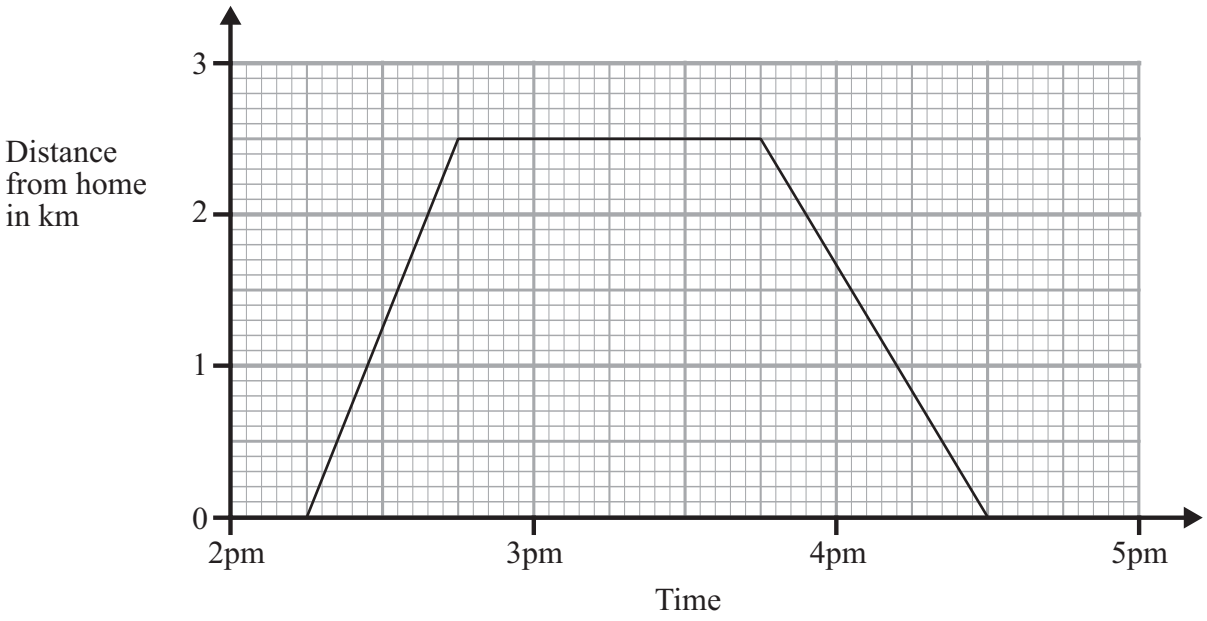
(1) **Q11**

(Total 2 marks)

Leave blank

12. Janet walked from her home to the library.
She spent some time in the library and then she walked back home.

The distance-time graph shows Janet's complete journey.



(a) At what time did Janet leave home?

.....

(1)

(b) How many minutes did Janet spend in the library?

..... minutes

(1)

(c) How far in total did Janet walk from her home to the library and back home?

..... km

(1)

Q12

(Total 3 marks)

Leave blank

13.

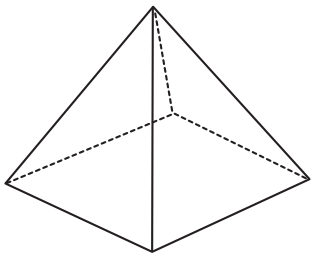


Diagram **NOT** accurately drawn

The diagram shows a square-based pyramid.
Each sloping face of the pyramid is an equilateral triangle.

(a) In the space below, draw a sketch of a net for the square-based pyramid.

(1)

(b) In the space below, use ruler and compasses to **construct** an equilateral triangle with sides of length 5 centimetres.
You must show all construction lines.
One side of the triangle has already been drawn for you.

(2)

Q13

(Total 3 marks)

Leave blank

14. Theo earns £20 one weekend.
He gives £4 to his brother.

(a) Express £4 as a fraction of £20
Give your answer in its simplest form.

.....
(2)

Theo gives £6 to his mother.

(b) Express £6 as a percentage of £20

..... %
(2)

Theo spent the remaining £10 on bus fares and food.
He spent £1.50 more on bus fares than on food.

(c) How much did he spend on bus fares?

£ .....
(2) **Q14**

(Total 6 marks)

Leave blank

15. Jim has £x.
Gemma has £4 more than Jim.
Jo has £2 less than Jim.
The total amount of money they have is £23

(a) Use this information to write down an equation in x.

.....
(2)

(b) Solve the equation to find how much money Jim has.

£ .....
(2)

Q15

(Total 4 marks)

16. The length of a car is 4.8 metres.
Kamraiz makes a model of the car.
He uses a scale of 1 : 24

Work out the length, in centimetres, of the model of the car.

..... cm
(Total 2 marks)

Q16

Leave blank

17. Work out $\frac{2}{3} + \frac{1}{7}$

..... **Q17**

(Total 2 marks)

18. Solve $3y + 12 = y + 8$

$y =$ **Q18**

(Total 2 marks)

19.

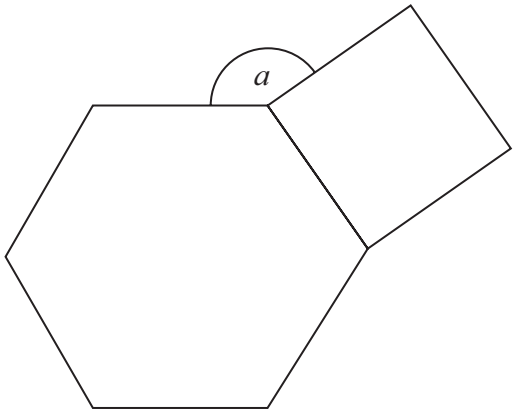


Diagram **NOT** accurately drawn

The diagram shows a regular hexagon and a square.

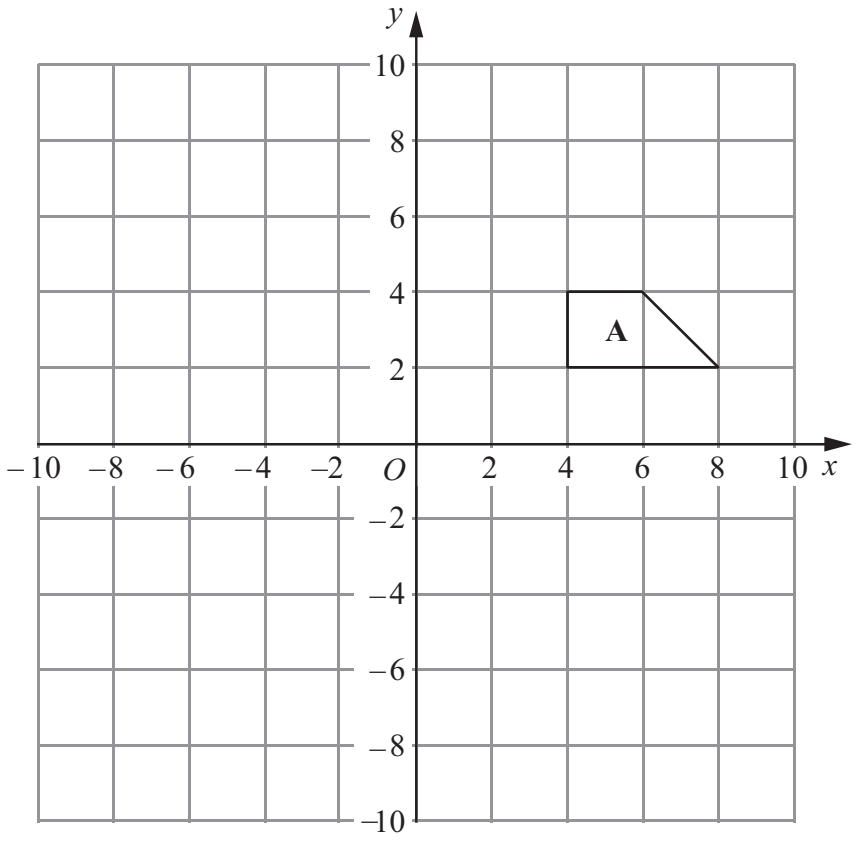
Calculate the size of the angle *a*.

..... ° **Q19**

(Total 4 marks)

Leave blank

20.



(a) Translate shape **A** by $\begin{pmatrix} -8 \\ -2 \end{pmatrix}$

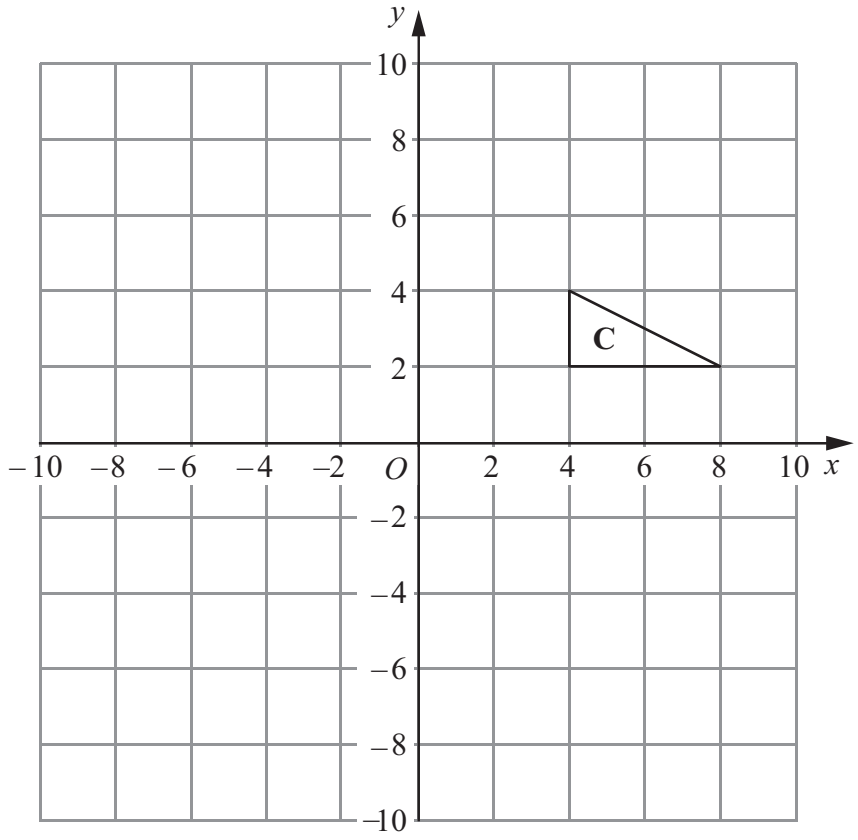
Label the new shape **B**.

(2)

P 4 0 0 8 0 A 0 1 5 1 6

Turn over

Leave blank



(b) Reflect shape **C** in the line $y = x$.
Label the new shape **D**.

(2) **Q20**

(Total 4 marks)

TOTAL FOR PAPER: 60 MARKS

END