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Paper Reference(s)

5383F/09

Edexcel GCSE

Mathematics (Modular) – 2381

Paper 9 (Calculator)

Foundation Tier

Unit 2 Stage 2

Monday 13 June 2011 – Afternoon

Time: 30 minutes

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 10 questions in this question paper. The total mark for this paper is 25.
There are 8 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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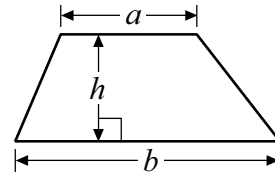P38945A
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Turn over

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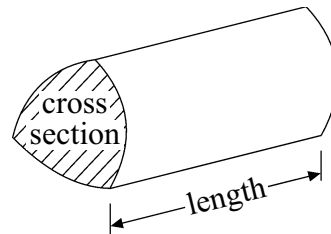P38945A0108

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

Answer ALL TEN questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

1. There are four types of tree in a wood.
   The trees are oak trees, birch trees, ash trees and elm trees.

   The table shows the percentage of these trees that are oak trees, are birch trees and are ash trees.

Type of tree	Percentage
Oak	55%
Birch	10%
Ash	15%
Elm	

   Work out the percentage of these trees that are elm trees.

   .... %

   Q1

   (Total 2 marks)

2. Calculators cost £2.75 each.
   A maths teacher has £50 to spend.
   She buys as many calculators as she can.
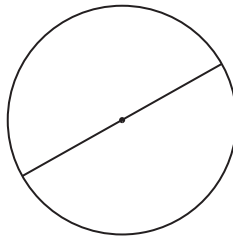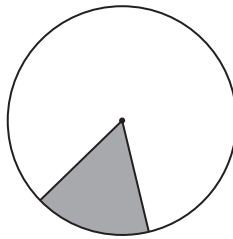
   Work out how many calculators she buys.

   ....

   Q2

   (Total 2 marks)

3. (a) Write down the mathematical name of the straight line shown in this diagram.

....
(1)

(b) Write down the mathematical name of the shaded region shown in this diagram.

....
(1) Q3

(Total 2 marks)

4. (a) Simplify $d \times d \times d$

....
(1)

(b) Simplify $3p \times 2r$

....
(1) Q4

(Total 2 marks)

5. Batteries are sold in packs.
There are *n* batteries in each pack.

Alex buys 5 packs of batteries.

(a) Write down an expression, in terms of *n*, for the total number of batteries she buys.

....
(1)

Alex gives 7 of the batteries to her brother.

(b) Write down an expression, in terms of *n*, for the number of batteries Alex now has.

....
(1)

(Total 2 marks)

Q5

6.
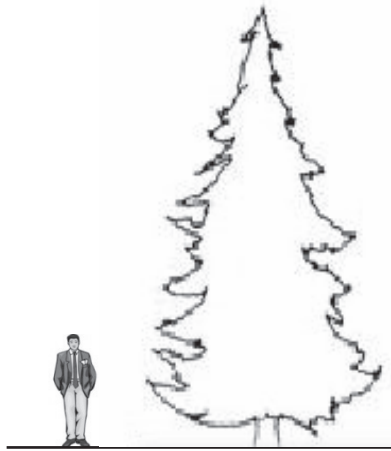
The picture shows a man standing next to a tree.
The man is of normal height.

Estimate the height, in metres, of the tree.

.... m

(Total 2 marks)

Q6

7. Samuel buys 3 kg of apples and 4 kg of pears.
The total cost is £10.30

The apples cost £1.34 per kg.

Work out the cost per kg of the pears.

£ ....

(Total 3 marks)

8. (a) Work out the value of $(3.5 - 1.92)^2 \times 3.274$

Write down all the figures on your calculator display.

....
(2)

(b) Write your answer to part (a) correct to 1 decimal place.

....
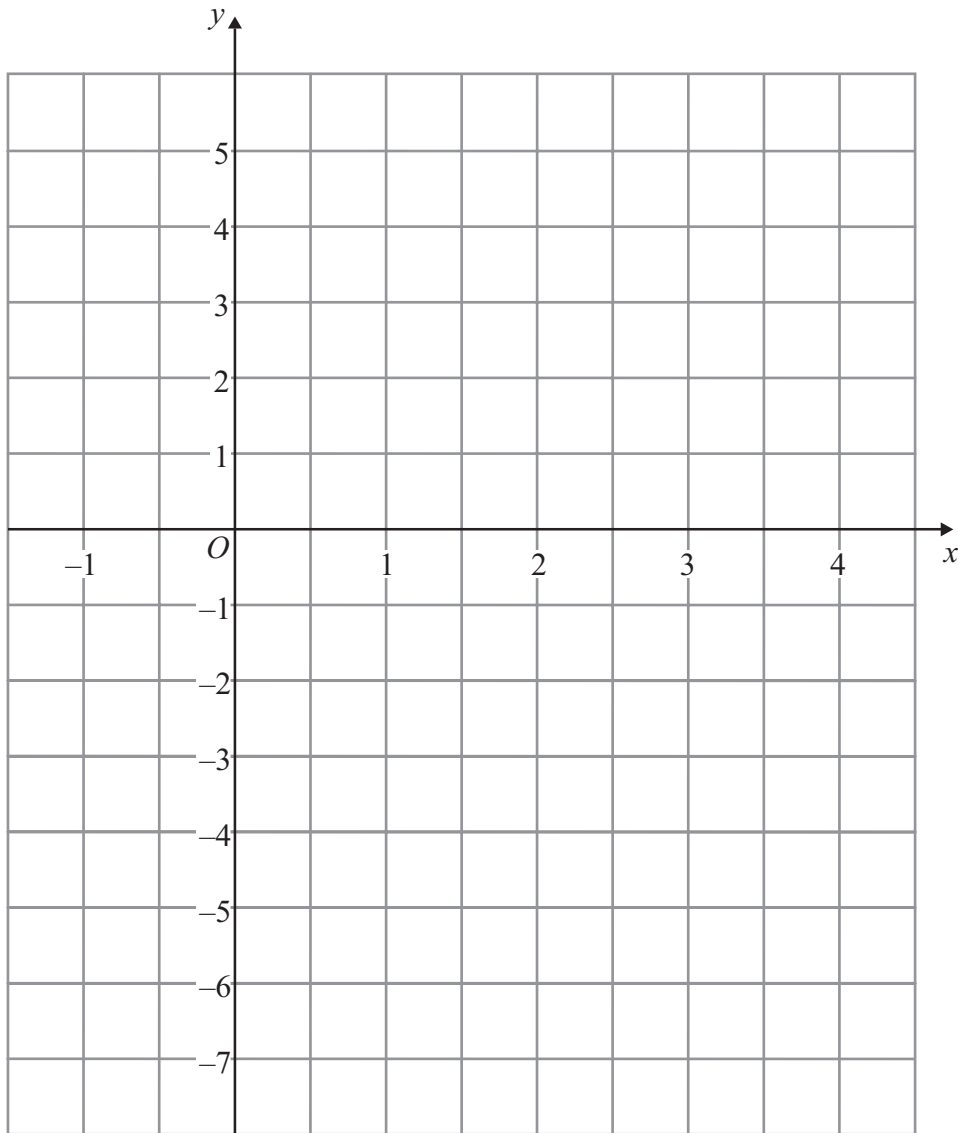**(1)**

(Total 3 marks)

9. On the grid, draw the graph of $y = 2x - 4$ for values of x from $x = -1$ to $x = 4$
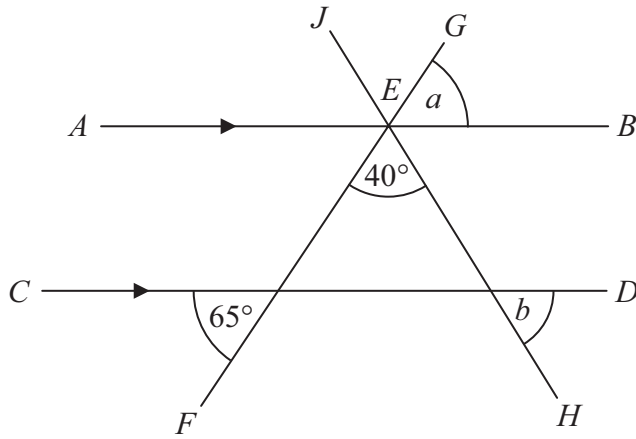
(Total 3 marks)

10.

FG and HJ are straight lines which cross at E.
The lines AEB and CD are parallel.

(a) (i) Write down the size of angle a.

.... °

(ii) Give reasons for your answer.

....

....

(2)

(b) Work out the size of angle b.

.... °

(2)   **Q10**

(Total 4 marks)

TOTAL FOR PAPER: 25 MARKS

END