| Centre No. | | | | | | | Paper Reference | | | | | | Surname | | Initial(s) |
| Candidate No. | | | | | | | **5** | **3** | **8** | **3** | **F** | **/** | **0** | **9** | Signature |

Edexcel GCSE

Mathematics (Modular) – 2381

Paper 9 (Calculator)

Foundation Tier

Unit 2 Stage 2

Tuesday 3 March 2009 – Afternoon

Time: 30 minutes

Materials required for examination	**Items included with question papers**
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.	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 9 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.
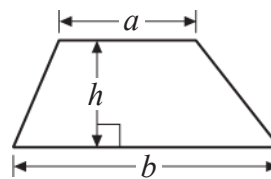
Turn over

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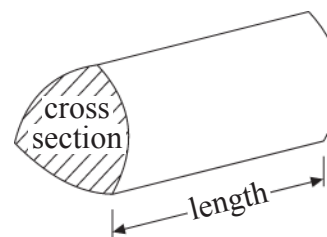
GCSE Mathematics 2381

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

N 3 4 6 7 6 A 0 2 0 8

Answer ALL NINE questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

1. (a) Find the square of 6

....
                                                    (1)

    (b) Find the square root of 225

....
                                                    (1)

    (c) Find the value of 10^3

....
                                                    (1) Q1

                                        (Total 3 marks)

2. There were 34 coins in a bag.
    Jim took 15 coins out of the bag.
    Rose put 17 coins into the bag.

    How many coins are now in the bag?

.... Q2
                                        (Total 2 marks)

3. (a) Change $\frac{1}{4}$ to a decimal.

....
(1)

(b) Find 10% of £50

£ ....
(1) Q3

(Total 2 marks)

4. Here are some words which describe parts of a circle.

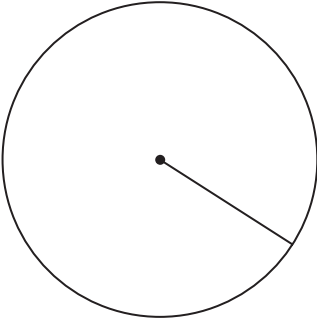| Radius	Diameter	Sector
Chord	Tangent	Segment

(a) Write down the mathematical name of the straight line shown in this diagram.
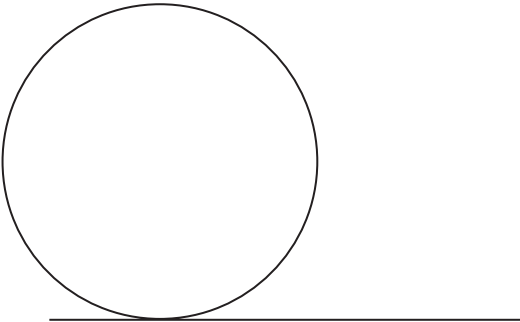Use one of the words from the box.

....
(1)

(b) Write down the mathematical name of the straight line shown in the diagram.
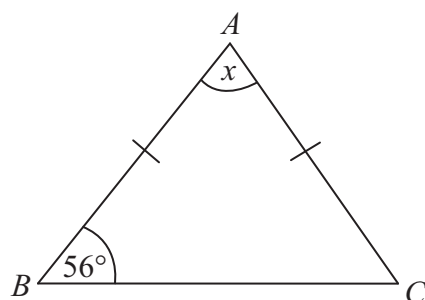Use one of the words from the box.

....
(1) Q4

(Total 2 marks)

5.

Diagram **NOT**
accurately drawn

The diagram shows an isosceles triangle.
AB = AC
Angle *CBA* = 56°

(a) Work out the size of the angle marked *x*.

°
....
(2)

(b) Give reasons for your answer.

....

....
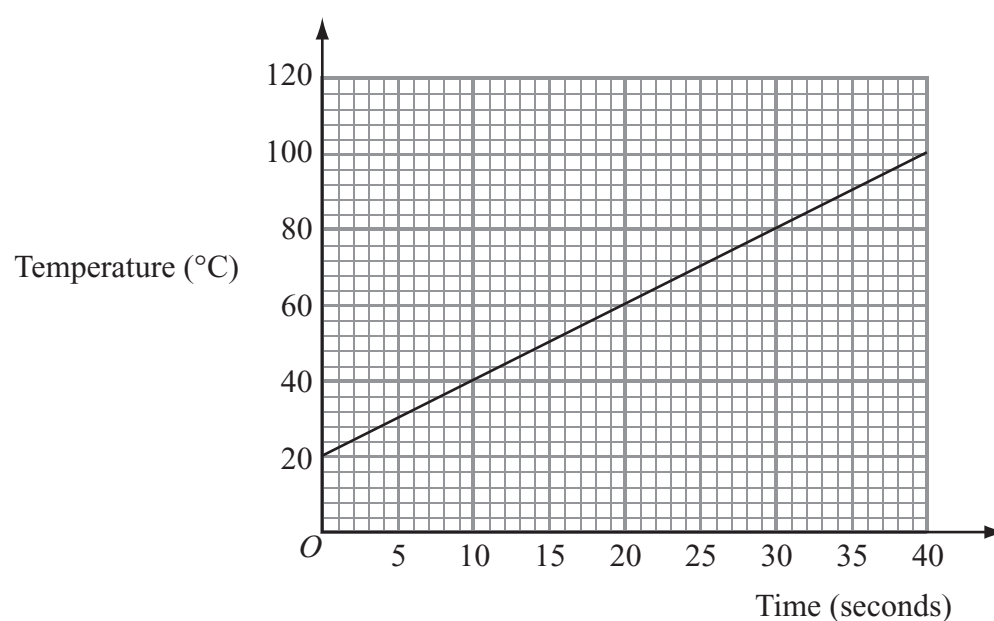**(1)**

(Total 3 marks)

6.

The diagram shows a man standing next to a lamppost.
The man is of normal height.

(a) Write down an estimate for the height, in metres, of the man.

.... m

(1)

(b) Estimate the height, in metres, of the lamppost.

.... m

(2)

(Total 3 marks)

7. Joe heats some water in a kettle.
The graph gives information about the temperature of the water in the kettle and the length of time it has been heated.

(a) Write down the temperature of the water when Joe started to heat the water.

.... °C
(1)

(b) Use the graph to find how many seconds it took the water to reach a temperature of 70°C.

.... seconds
(1)

(c) Work out the increase in the temperature of the water from the 10th second to the 35th second.

.... °C
(2)

(Total 4 marks)

8. (a) Expand and simplify $4(2x + 5) + 2(3x - 2)$

....
(2)

(b) Factorise $y^2 - 4y$

....
(1)

(Total 3 marks)

9. (a) Use your calculator to work out $\dfrac{26.4 + 8.2}{\sqrt{5.76}}$ as a decimal.

Write down all the figures on your calculator display.

....
(2)

(b) Write your answer to part (a) correct to 2 decimal places.

....
(1)

(Total 3 marks)

TOTAL FOR PAPER: 25 MARKS

END