

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

Paper Reference(s)

5384F/11F

Edexcel GCSE

Mathematics (Modular) – 2381

Paper 11 (Non-Calculator)

Foundation Tier

Unit 3

Monday 7 June 2010 – Afternoon

Time: 1 hour

Examiner's use only

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Team Leader's use only

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**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 18 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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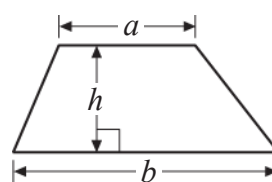
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## GCSE Mathematics

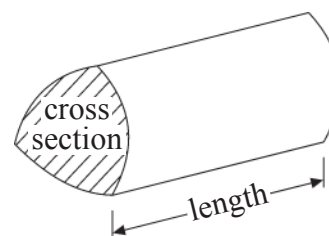
Formulae: Foundation Tier

**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  $\times$  length





<p><b>Answer ALL EIGHTEEN questions.</b></p> <p><b>Write your answers in the spaces provided.</b></p> <p><b>You must write down all stages in your working.</b></p> <p><b>You must NOT use a calculator.</b></p>		Leave blank
1. (a)	Work out $203 - 87$	
		..... (1)
(b)	Work out $- 5 - 6$	
		..... (1)
(c)	Work out $6.41 + 0.36$	
		..... (1)
(d)	Work out $100 \div 20$	
		..... (1)
(Total 4 marks)		Q1 <div></div>



N 3 6 8 0 9 A 0 3 1 6



## Q2

3. Jim took an English test and a mathematics test.

(a) Write 44 out of 50 as a fraction.  
Give your answer in its simplest form.

..... cm  
(1)



**Q2**

(b) What is 33 out of 50 as a percentage?

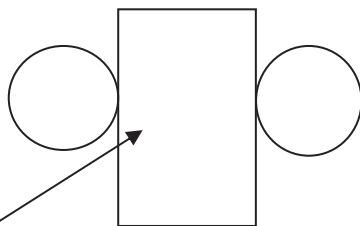
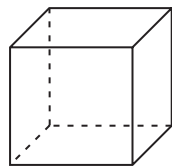
.....%

**(2)**

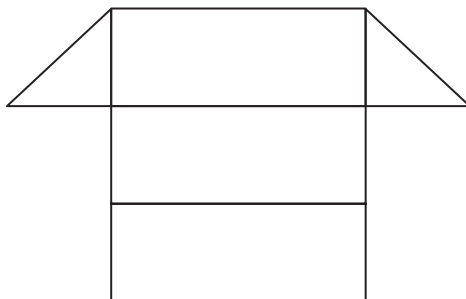
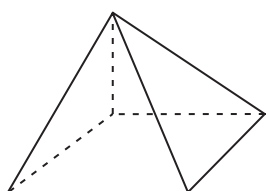
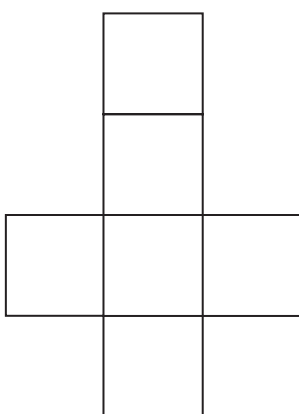
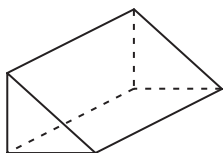
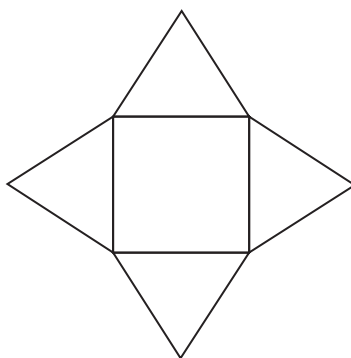
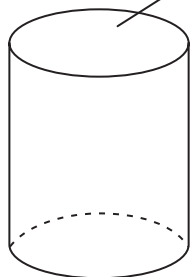
Q3



4.



Diagrams **NOT**  
accurately drawn



The diagram shows 4 solid shapes and their nets.

Draw an arrow from each solid shape to its net.  
One arrow has been done for you.

(Total 2 marks)

Leave  
blank

Q4

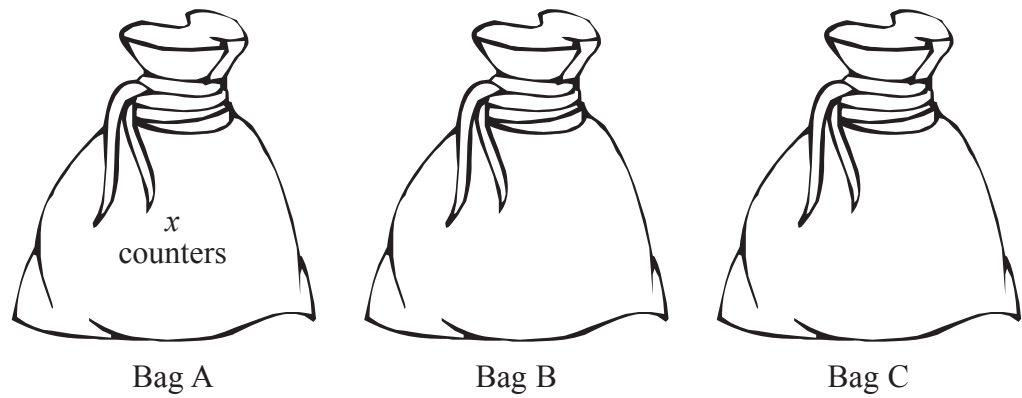


<p>5. Jo thinks of a number.</p> <p>She multiplies this number by 2</p> <p>She then adds 12</p> <p>Her answer is 42</p> <p>What number did Jo think of first?</p>	Leave blank
<p>.....</p> <p>(Total 2 marks)</p>	<p>Q5</p> <div></div>
<p>6. The total cost of 5 pencils is 55p.</p> <p>Work out the total cost of 7 of these pencils.</p>	
<p>..... p</p> <p>(Total 2 marks)</p>	<p>Q6</p> <div></div>



Leave  
blank

7.



Here are three bags of counters.

There are  $x$  counters in Bag A.

Bag B has **twice** as many counters as Bag A.

Bag C has the **same** number of counters as Bag A.

(a) Show that the total number of counters in the bags is  $4x$ .

(1)

The total number of counters in the bags is 28

(b) Find the value of  $x$ .

$x = \dots\dots\dots$

(2)

(Total 3 marks)

Q7



8. Here is a sketch of a cuboid.

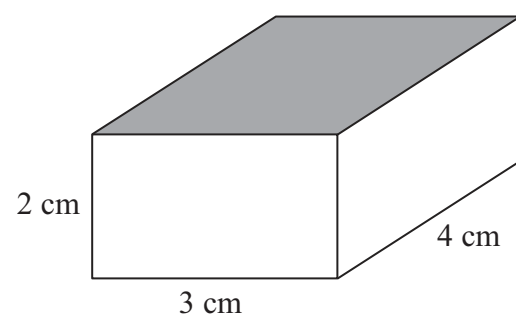
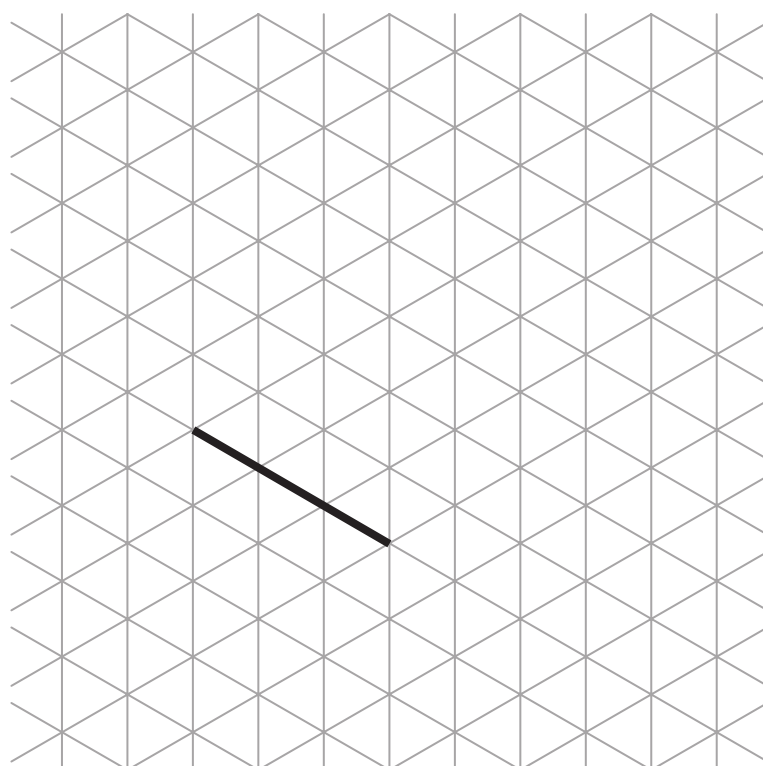


Diagram **NOT**  
accurately drawn

- (a) On the isometric grid below, make an accurate drawing of this cuboid.  
One edge has been drawn for you.



(2)

- (b) Work out the area of the top face of the cuboid.

..... cm<sup>2</sup>  
(2)

(Total 4 marks)

Q8







9. The table shows some information about boxes of cereal on sale in a supermarket.

Cereal	Weight of 1 box	Cost of 1 box
Coco Pops	600 g	£2.79
Frosties	500 g	£1.55
Rice Krispies	600 g	£2.43
Shreddies	500 g	£1.85

Flossie buys one of each box of cereal.

(a) Work out the total weight of these boxes of cereal.  
Give your answer in kg.

..... kg  
(3)

Ed buys  
one box of Coco Pops  
and two boxes of Shreddies.

(b) How much money in total does Ed spend?

£ .....  
(2)

(Total 5 marks)

Leave blank

Q9



N 3 6 8 0 9 A 0 9 1 6



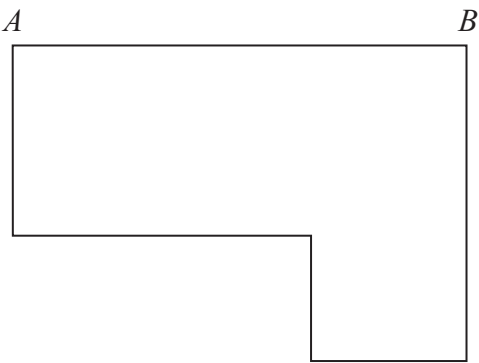
<p>10. (a) Simplify <math>m \times m \times m</math></p> <p>.....</p> <p style="text-align: right;"><b>(1)</b></p> <p><math>B = 2k + 12</math></p> <p><math>k = 5</math></p> <p>(b) Work out the value of <math>B</math>.</p> <p><math>B =</math> .....</p> <p style="text-align: right;"><b>(2)</b></p> <p><math>T = 4w - 2</math></p> <p><math>T = 22</math></p> <p>(c) Work out the value of <math>w</math>.</p> <p><math>w =</math> .....</p> <p style="text-align: right;"><b>(2)</b></p> <p style="text-align: right;"><b>(Total 5 marks)</b></p>	<p>Leave blank</p> <p><b>Q10</b></p> <div></div>





Leave  
blank

11. Here is a scale drawing of the floor of a hall.  
 $A$  and  $B$  are two corners of the floor.



Scale: 1 cm represents 4 metres

On the scale drawing  $AB = 6$  cm.  
(a) Work out the real distance from  $A$  to  $B$ .

..... m  
(2)

Ken makes a new scale drawing of the hall.  
On his scale drawing  $AB = 12$  cm.  
(b) Work out the new scale Ken uses.

New Scale: 1 cm represents ..... m  
(2)

(Total 4 marks)

Q11



N 3 6 8 0 9 A 0 1 1 1 6



12.

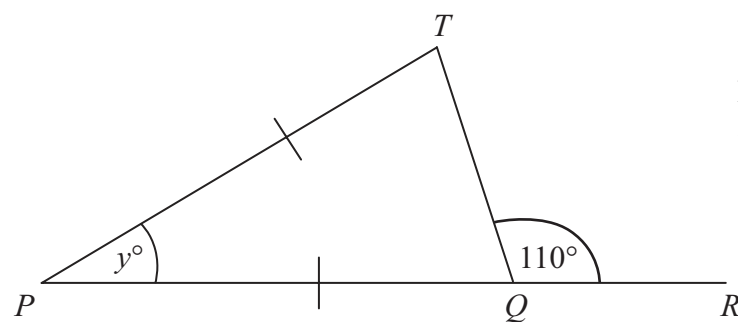


Diagram **NOT**  
accurately drawn

$PQR$  is a straight line.  
 $PT = PQ$ .

(i) Work out the value of  $y$ .

.....

(ii) Give reasons for your answer.

.....

.....

.....

(Total 4 marks)

Leave  
blank

Q12



<p><b>13.</b> There are 300 people in a cinema.</p> <p><math>\frac{1}{6}</math> of the 300 people are boys.</p> <p><math>\frac{3}{10}</math> of the 300 people are girls.</p> <p>The rest of the people are adults.</p> <p>Work out how many people are adults.</p>	Leave blank
<p>.....</p> <p><b>(Total 4 marks)</b></p>	<p><b>Q13</b></p> <div></div>
<p><b>14.</b> Anna and Bill share £40 in the ratio 2 : 3</p> <p>Work out how much each person gets.</p>	
<p>Anna     £.....</p> <p>Bill     £.....</p> <p><b>(Total 3 marks)</b></p>	<p><b>Q14</b></p> <div></div>



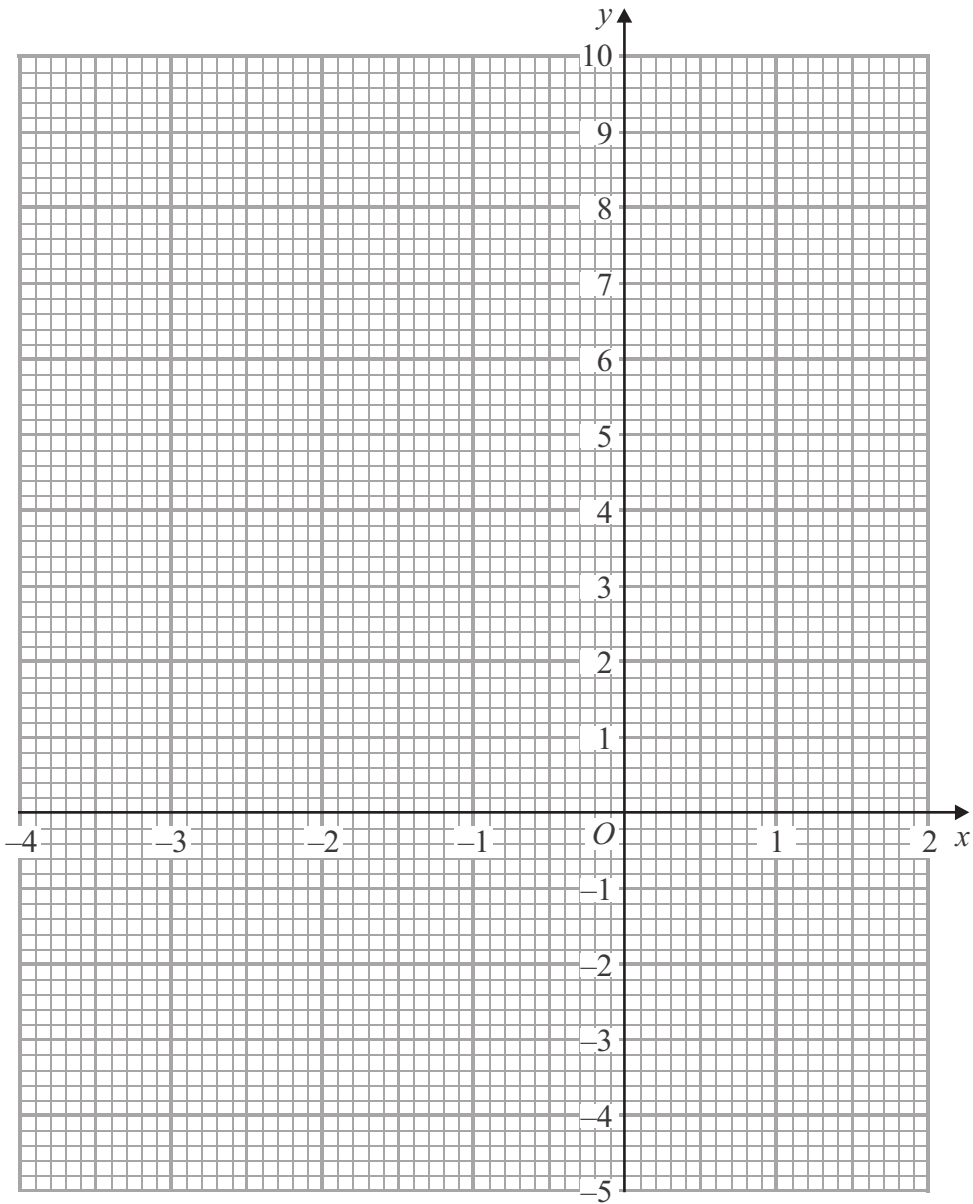
15. (a) Complete the table of values for  $y = x^2 + x - 3$

$x$	-4	-3	-2	-1	0	1	2
$y$	9		-1	-3			3

(2)

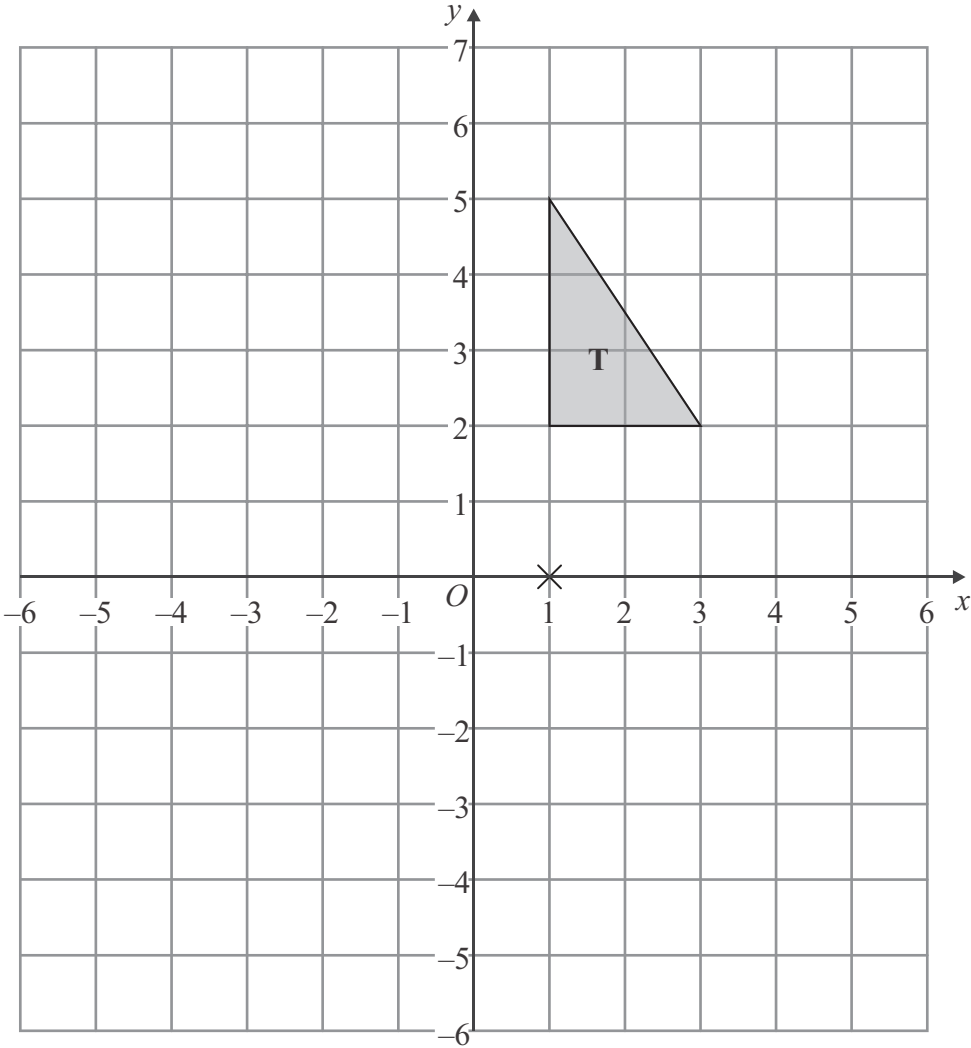
(b) On the grid below, draw the graph of  $y = x^2 + x - 3$  for values of  $x$  from -4 to 2

(2)



Leave  
blank



<p>(c) Use your graph to find estimates for the solutions of <math>x^2 + x - 3 = 0</math></p> <p><math>x = \dots\dots\dots</math></p> <p><math>x = \dots\dots\dots</math></p> <p style="text-align: right;"><b>(1)</b></p>		Leave blank
<b>(Total 5 marks)</b>		<b>Q15</b> <div></div>
<p><b>16.</b></p> <div style="text-align: center;"></div> <p>Triangle <b>T</b> has been drawn on the grid.</p> <p>Rotate triangle <b>T</b> <math>180^\circ</math> about the point <math>(1, 0)</math>.</p> <p>Label the new triangle <b>A</b>.</p>		<b>Q16</b> <div></div>
<b>(Total 2 marks)</b>		



### Q17

**Q18**



**(Total 3 marks)**

**(Total 3 marks)**

**TOTAL FOR PAPER: 60 MARKS**