

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

Paper Reference(s)

5534/15

Edexcel GCSE

Mathematics B – 1388

Paper 15 (Calculator)

Foundation Tier

Friday 9 November 2007 – Morning

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, 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 18 questions in this question paper. The total mark for this paper is 62. There are 16 pages in this question paper. Any blank pages are indicated. **Calculators may be used.** If your calculator does not have a  $\pi$  button, take the value of  $\pi$  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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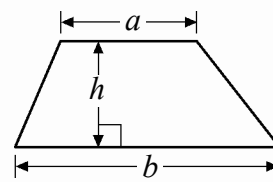
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**GCSE Mathematics 1387/8**

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** =  $\frac{1}{2}(a + b)h$



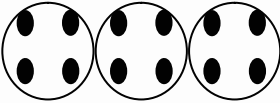
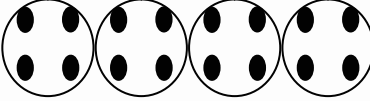
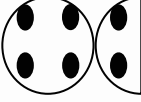
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Answer ALL EIGHTEEN questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

1. The pictogram gives information about the number of goals scored in a local football league in each of 3 weeks.

First week	
Second week	
Third week	
Fourth week	
Fifth week	

Key:  represents 4 goals

- (a) Find the number of goals scored in the first week.

.....  
(1)

- (b) Find the number of goals scored in the third week.

.....  
(1)

8 goals were scored in the fourth week.  
5 goals were scored in the fifth week.

- (c) Complete the pictogram.

(2)

Q1

(Total 4 marks)



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2. Here is a sequence of patterns made from grey squares and white squares.

Pattern  
Number 1

Pattern  
Number 2

Pattern  
Number 3

(a) Complete Pattern Number 4

Pattern  
Number 4

(1)

(b) Complete the table.

Pattern Number	1	2	3	4	5
Total number of squares	3	6	9		

(1)

One of the patterns in the sequence has 10 grey squares.

(c) How many white squares does this pattern have?

.....  
(1)

Another pattern in the sequence has a total of 18 squares.

(d) How many grey squares does the pattern have?

.....  
(1)

(Total 4 marks)

Q2



**Q3**

## Prices

Cup of tea	70p
Cup of coffee	85p
Can of cola	75p

Roll	£1.60
Sandwich	£1.35

Kim buys a can of cola, a cup of coffee and a sandwich.  
She pays with a £5 note.

Work out how much change she should get.

£.....

**(Total 3 marks)**

Q3

4.  $A$  and  $B$  are two points on a map.

 $A^\times$  $\times B$ 

Scale: 1 cm represents 10 km

Work out the actual distance, in kilometres, between the points  $A$  and  $B$ .

..... km

**(Total 2 marks)**

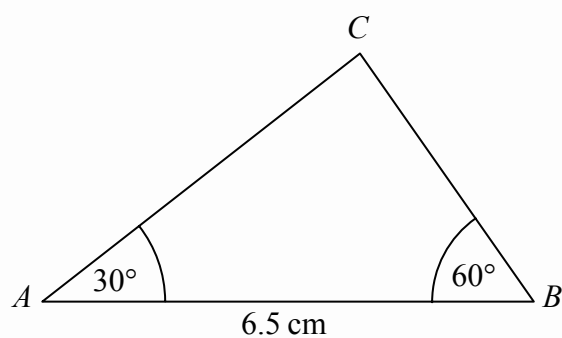
Q4



**Q5**

(a) Make an accurate drawing of this triangle.  
The line  $AB$  has already been drawn for you.

**(Total 5 marks)**


$$A \text{ ————— } B$$

(2)

(b) Measure the length of the line  $AC$  on your drawing.  
You must state the units.

(2)

The size of the angle in the triangle at  $C$  is  $90^\circ$ .

(c) Write down the mathematical name for this type of angle.

(1)

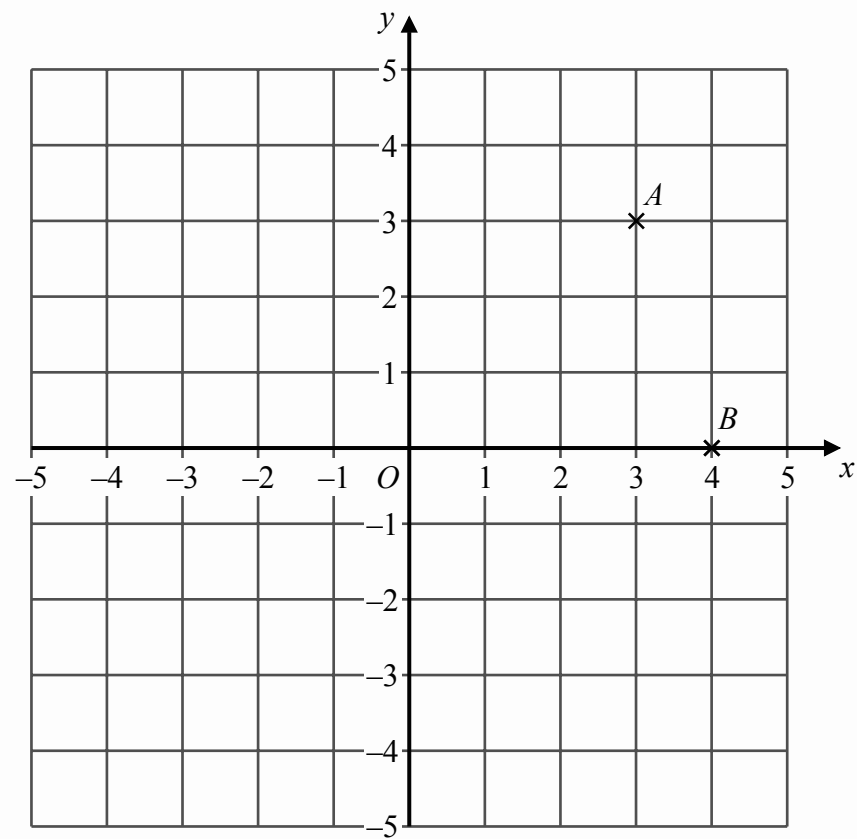
**Q5**

**(Total 5 marks)**



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6.



(a) Write down the coordinates of the point  $A$ .

(..... , .....)  
(1)

(b) Write down the coordinates of the point  $B$ .

(..... , .....)  
(1)

(Total 2 marks)

Q6



H 3 1 1 1 8 A 0 7 1 6

7.

Litres

200

180

160

140

120

100

80

60

40

20

0

Full

Empty

The scale shows how much water there is in a tank.

(a) Write down an estimate for the number of litres of water in the tank.

..... litres

(1)

The tank holds 200 litres when full.  
Bill adds water to the tank until it is full.

(b) Work out the number of litres of water he adds.

..... litres

(1)

(c) (i) How many litres are there in 1 gallon?

..... litres

(ii) Change 200 litres to gallons.  
Give your answer to the nearest gallon.

..... gallons

(2)

(Total 4 marks)

Leave blank

Q7





<p>8. (a) Solve <math>2y = 8</math></p> <p><math>y = \dots\dots\dots</math> (1)</p> <p>(b) Solve <math>t - 4 = 7</math></p> <p><math>t = \dots\dots\dots</math> (1)</p> <p>(Total 2 marks)</p>	<p>Leave blank</p> <p><b>Q8</b></p> <div></div>
<p>9. Mr Smith kept a record of the number of absences for each student in his class for one term.</p> <p>Here are his results.</p> <p>0   0   0   8   4   5   5   3   2   1</p> <p>(a) Write down the mode.</p> <p><math>\dots\dots\dots</math> (1)</p> <p>(b) Work out the mean.</p> <p><math>\dots\dots\dots</math> (2)</p> <p>(Total 3 marks)</p>	<p><b>Q9</b></p> <div></div>



<p><b>10.</b> 800 students are going on a school trip by bus.</p> <p>Each bus can carry 34 students.</p> <p>Work out the smallest number of buses needed to carry all the students.</p> <p>.....</p> <p><b>(Total 2 marks)</b></p>	Leave blank
<p><b>11.</b> One cup costs £3</p> <p>One plate costs £5</p> <p>Write down an expression for the total cost, in pounds, of <math>x</math> cups and <math>y</math> plates.</p> <p>.....</p> <p><b>(Total 2 marks)</b></p>	<b>Q10</b> <input type="text"/>
<p><b>12.</b> The cost of 1.5 kg of peaches is £0.84</p> <p>The total cost of 3 kg of peaches and 2 kg of apples is £2.34</p> <p>Work out the cost of 1 kg of apples.</p> <p>.....</p> <p><b>(Total 3 marks)</b></p>	<b>Q11</b> <input type="text"/>
	<b>Q12</b> <input type="text"/>



<p><b>13.</b> Plain tiles cost 28p each. Patterned tiles cost £9.51 each.</p> <p>Julie buys 450 plain tiles and 15 patterned tiles.</p> <p>(a) Work out the total cost of the tiles.</p> <p>£..... <b>(3)</b></p> <p>(b) Express 15 as a fraction of 450 Give your answer in its simplest form.</p> <p>..... <b>(2)</b></p> <p>Fred lays the tiles. He charges £360 plus VAT at 17.5%.</p> <p>(c) Work out the total amount that Fred charges.</p> <p>£..... <b>(3)</b></p> <p><b>(Total 8 marks)</b></p>	<p>Leave blank</p> <p><b>Q13</b></p> <div></div>
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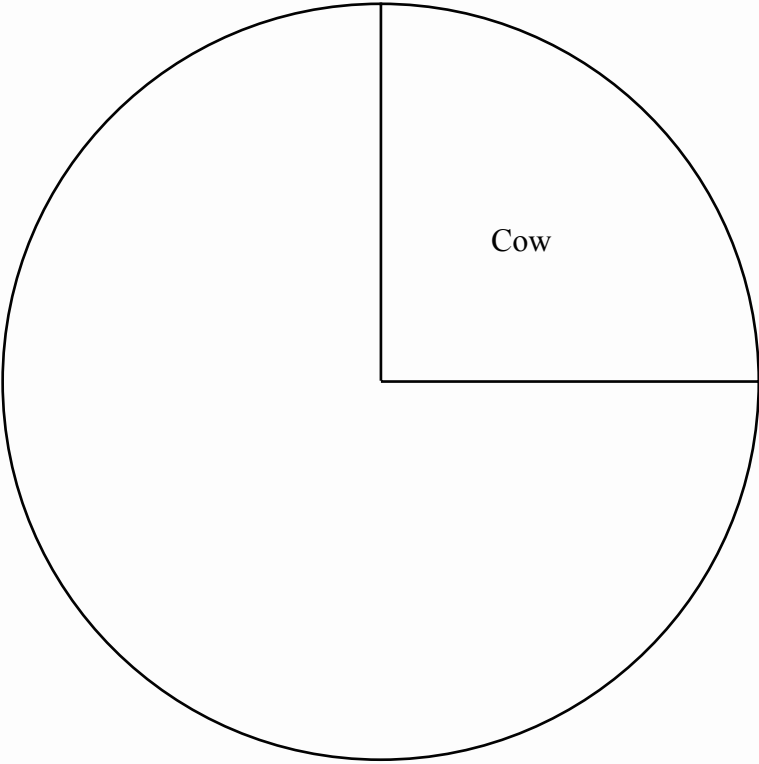


14. Mr Irvine has a farm.

The table gives information about the number of animals on his farm.

Animal	Frequency	
Cow	15	
Hen	12	
Pig	5	
Sheep	28	

Complete the accurate pie chart to show this information.



Q14

(Total 4 marks)



15. Anne and Bevan share £24 in the ratio 1 : 3

Work out how much money Bevan gets.

£ .....

(Total 2 marks)

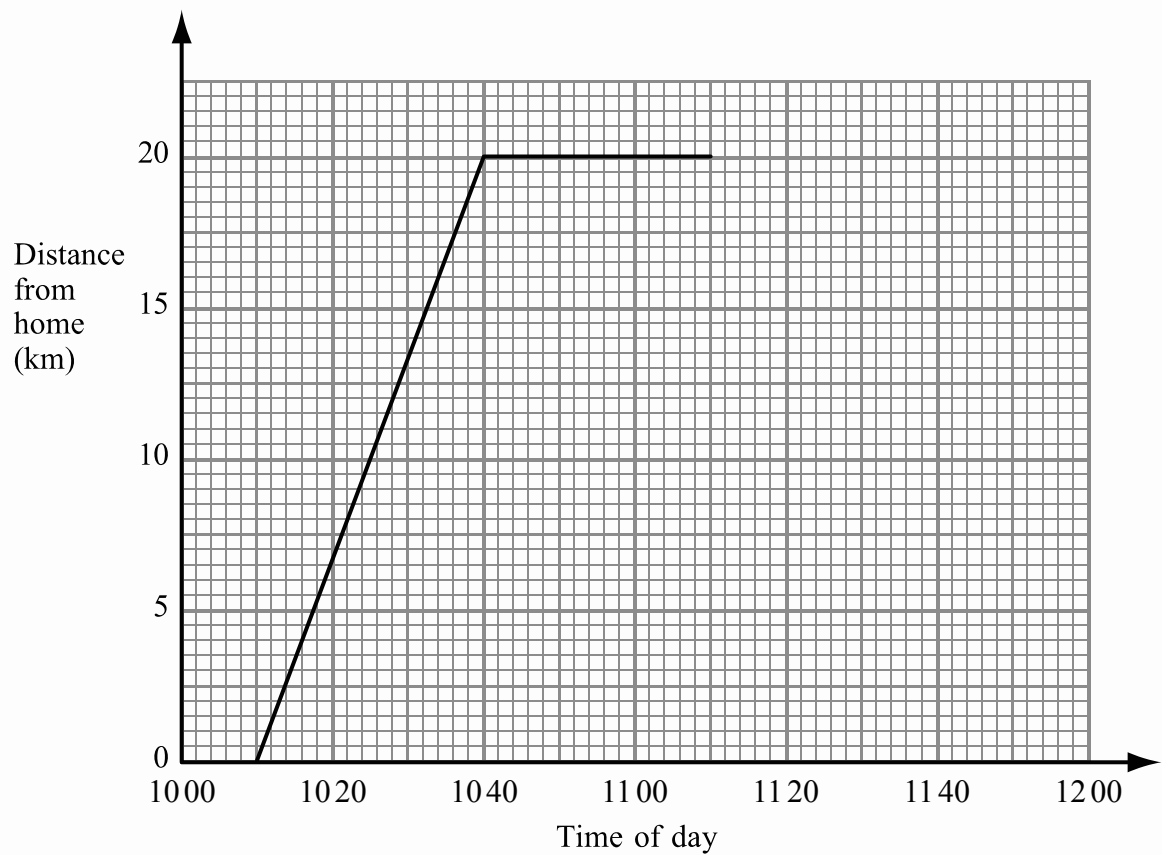
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Q15



Leave  
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16. Jamie travelled 20 km from his home to his friend's house.  
Jamie then spent some time at his friend's house before returning home.  
Here is the travel graph for part of Jamie's journey.



- (a) Write down the time that Jamie left home.

.....  
(1)

- (b) Write down Jamie's distance from home at 10:20

..... km  
(1)

Jamie left his friend's house at 11:10 to return home.

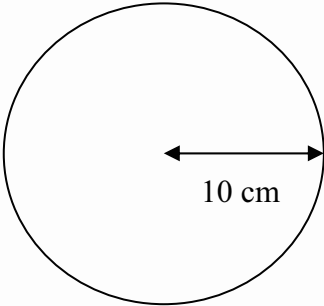
- (c) Work out the time in minutes Jamie spent at his friend's house.

..... minutes  
(1)



<p>Jamie returned home at a steady speed. He arrived home at 11 50</p> <p>(d) Complete the travel graph. (1)</p> <p>(e) Work out Jamie's average speed on his journey from his home to his friend's house. Give your answer in kilometres per hour.</p> <p>..... kilometres per hour (2)</p> <p>(Total 6 marks)</p>	<p>Leave blank</p> <p>Q16</p> <div></div>
<p>17. Solve <math>4y + 3 = 2(y + 4)</math></p> <p><math>y = </math>.....</p> <p>(Total 3 marks)</p>	<p>Q17</p> <div></div>



<p>18.</p> <div data-bbox="617 599 919 884">  </div> <p>Diagram <b>NOT</b> accurately drawn</p> <p>The diagram shows a circle. The radius of the circle is 10 cm.</p> <p>Calculate the area of the circle. Give your answer correct to 3 significant figures. State the units with your answer.</p> <p>.....</p> <p>(Total 3 marks)</p>	<p>Leave blank</p> <p><b>Q18</b></p> <div data-bbox="1614 1427 1656 1498"></div>
<p><b>TOTAL FOR PAPER: 62 MARKS</b></p> <p><b>END</b></p>	

