

Centre No.						Paper Reference										Surname	Initial(s)
Candidate No.						5	3	8	4	F	/	1	2	F	Signature		

Paper Reference(s)

5384F/12F

Edexcel GCSE

Mathematics (Modular) – 2381

Paper 12 (Calculator)

Foundation Tier

Unit 3

Monday 1 June 2009 – 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 60. There are 20 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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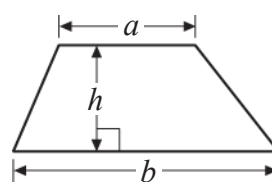
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GCSE Mathematics

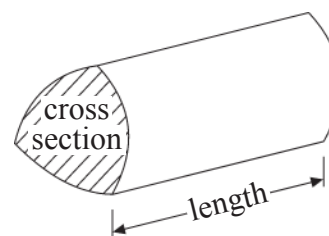
Formulae: Foundation Tier

**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



Answer ALL EIGHTEEN questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

1. (a) Write $\frac{9}{10}$ as a decimal.

.....

(1)

(b) Write $\frac{3}{4}$ as a percentage.

..... %

(1)

(c) Write 23% as a fraction.

.....

(1)

(d) Work out $\frac{1}{5}$ of 50

.....

(1)

(Total 4 marks)

Q1



2.

Cinema tickets

Adult ticket: £8.65

Child ticket: £4.90

Senior ticket: £5.85

Tony buys one child ticket and one senior ticket.

(a) Work out the total cost.

£
(1)

Stephanie buys adult tickets only.

The total cost is £60.55

(b) How many adult tickets does she buy?

.....
(2)

Kamala buys one adult ticket and two child tickets.

She pays with a £20 note.

(c) How much change should she get?

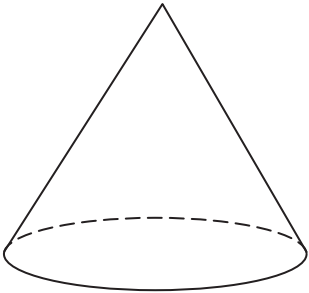
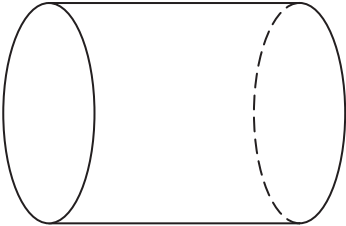

£
(3)

(Total 6 marks)

Leave blank

Q2

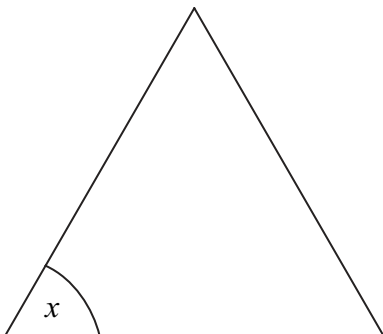


<p>3. Write down the name of each of these two 3-D shapes.</p> <div><div>(i) </div><div>(ii) </div></div> <p>(i) (ii)</p> <p>(Total 2 marks)</p>		Leave blank
<p>4. (a) Measure, in centimetres, the length of the line AB.</p> <div></div> <p>..... cm (1)</p> <p>(b) Mark the midpoint of the line AB with a cross (\times).</p> <p>(1)</p> <p>(Total 2 marks)</p>		Q3 Q4



Leave
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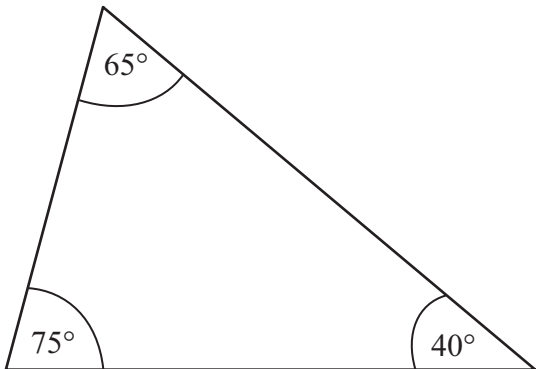
5. (a) Here is an equilateral triangle.



Write down the size of the angle marked x .

$x = \text{.....}^\circ$
(1)

(b) Here is a triangle.



Rob says this triangle is a right-angled triangle.

Rob is wrong.
Explain why.

.....
.....

(1)

Q5

(Total 2 marks)



<p>6. You can use this rule to work out the cost, in pounds, of hiring a carpet cleaner.</p> <div><p>Multiply the number of days hire by 6</p><p>Add 4 to your answer.</p></div> <p>Jill hires the carpet cleaner for 3 days.</p> <p>(a) Work out the cost.</p> <p>£ (2)</p> <p>Carlos hires the carpet cleaner.</p> <p>The cost is £52</p> <p>(b) Work out for how many days Carlos hires the carpet cleaner.</p> <p>..... days (3)</p> <p>(Total 5 marks)</p>	<p>Leave blank</p> <p>Q6</p>
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<div>7. Kaz buys a car. The normal price of the car is £7200</div> <div>Kaz gets a 10% discount.</div> <div>(i) Work out 10% of £7200</div> <div>£</div> <div>(ii) Work out how much Kaz pays for the car.</div> <div>£</div> <div>(Total 3 marks)</div>	<div>Leave blank</div> <div>Q7</div> <div></div>



8. Here is a cuboid.

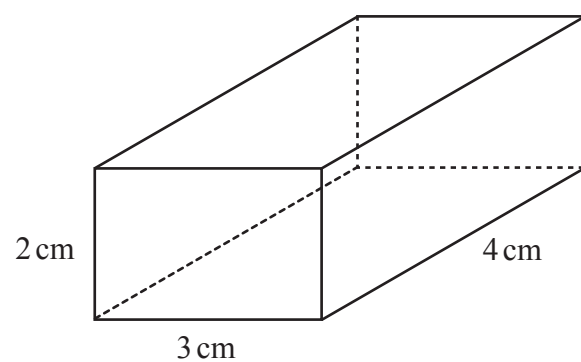
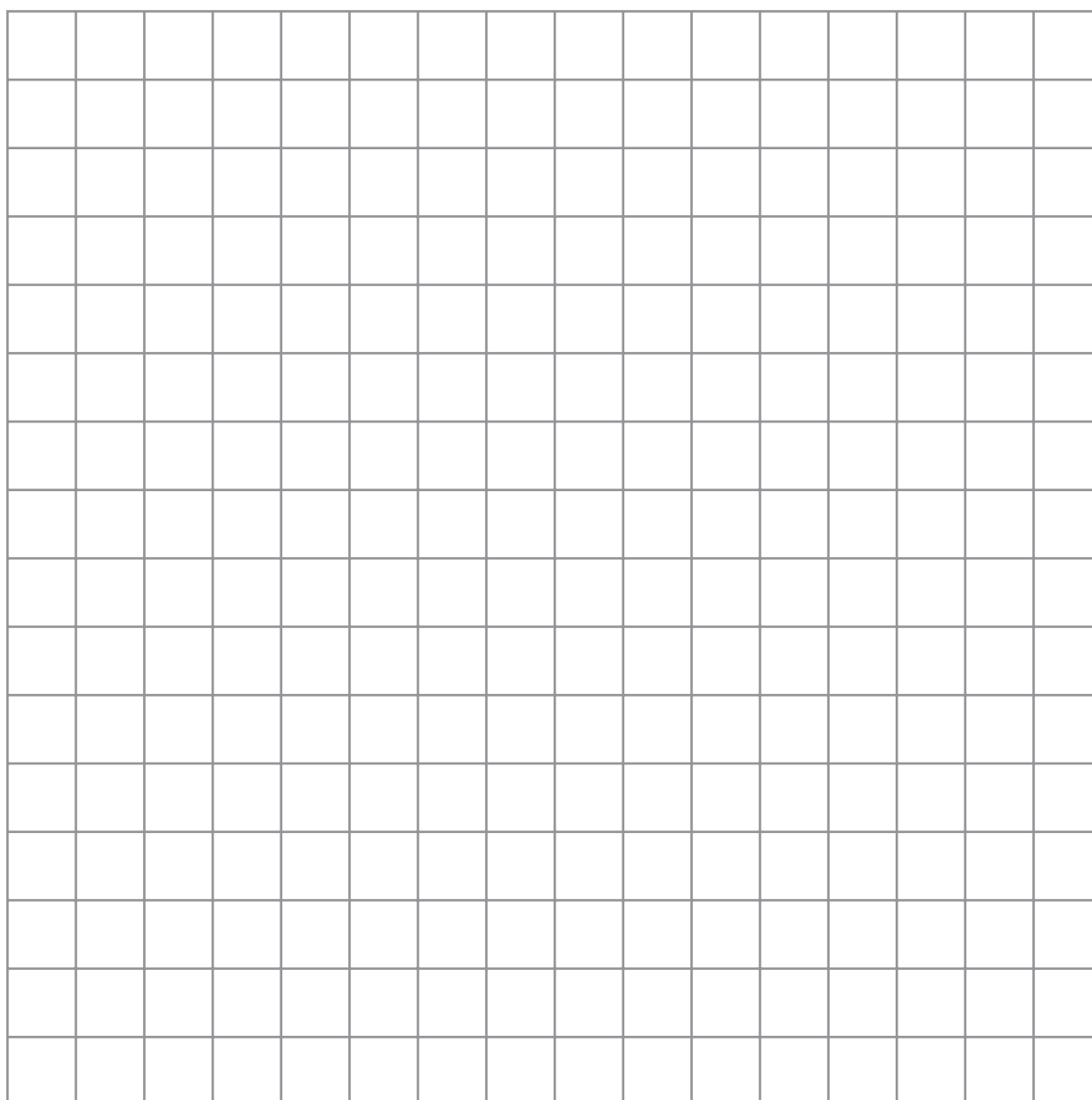


Diagram **NOT**
accurately drawn

Draw an accurate net of this cuboid.



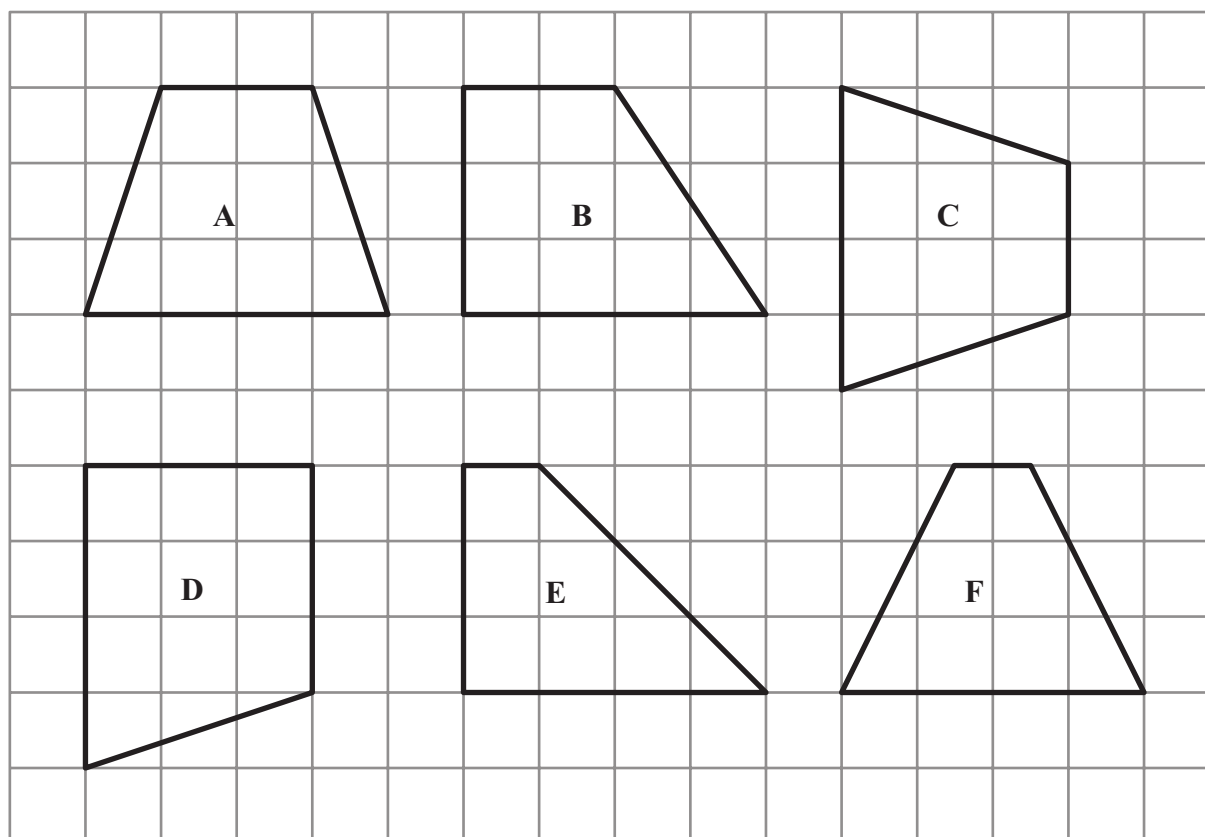
(Total 3 marks)

Leave
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Q8



9. Here are 6 shapes drawn on a grid.

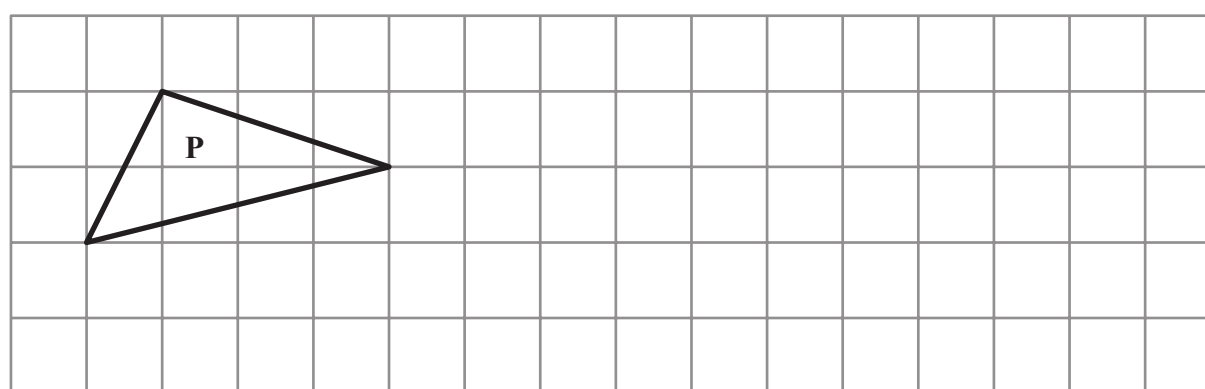


Two of these shapes are congruent.

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

..... and
(1)

(b) On the grid below, draw a shape that is congruent to shape **P**.



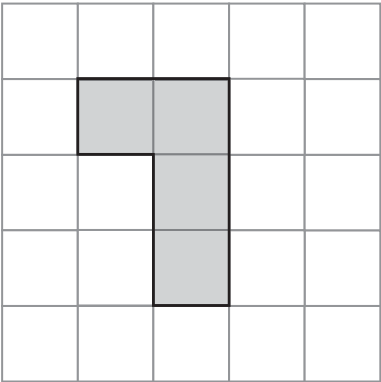
(1)

Q9

(Total 2 marks)

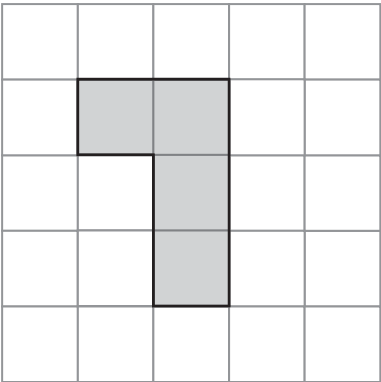
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10. (a) Shade **one** more square to make a pattern with 1 line of symmetry.



(1)

(b) Shade **one** more square to make a pattern with rotational symmetry of order 2



(1)

Q10

(Total 2 marks)



H 3 4 8 0 7 A 0 1 1 2 0

<p>11. 36 students each went to one revision class.</p> <p>$\frac{1}{6}$ of the students went to the physics revision class.</p> <p>$\frac{2}{9}$ of the students went to the biology revision class.</p> <p>All of the other students went to the chemistry revision class.</p> <p>How many students went to the chemistry revision class?</p> <p>.....</p> <p>(Total 3 marks)</p>	<p>Leave blank</p> <p>Q11</p> <div></div>
<p>12. $F = 1.8C + 32$</p> <p>(a) Work out the value of F when $C = -8$</p> <p>.....</p> <p>(2)</p> <p>(b) Work out the value of C when $F = 68$</p> <p>.....</p> <p>(2)</p> <p>(Total 4 marks)</p>	<p>Q12</p> <div></div>

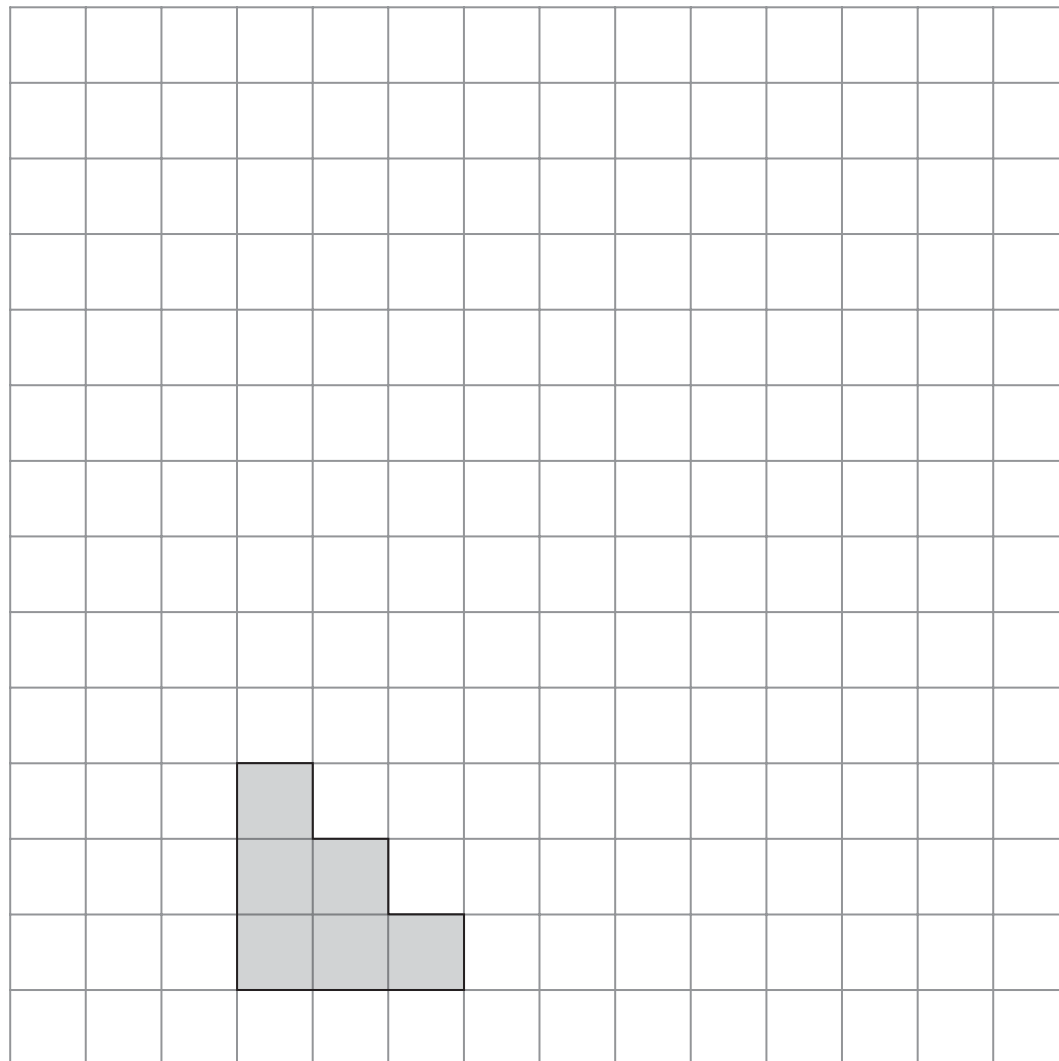


<p>13. Tania went to Italy. She changed £325 into euros (€).</p> <p>The exchange rate was £1 = €1.68</p> <p>(a) Change £325 into euros (€).</p> <p>€</p> <p>(2)</p> <p>When she came home she changed €117 into pounds.</p> <p>The new exchange rate was £1 = €1.50</p> <p>(b) Change €117 into pounds.</p> <p>£</p> <p>(2)</p> <p>(Total 4 marks)</p>	<p>Leave blank</p> <p>Q13</p> <div></div>
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14.



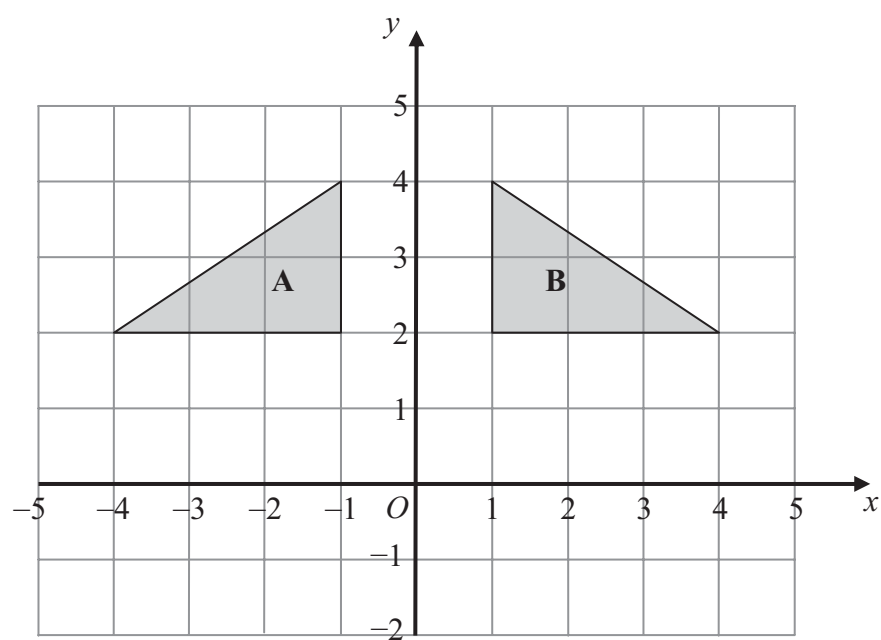
(a) On the grid, draw an enlargement, scale factor 2, of the shaded shape.

(2)

Leave
blank



Leave
blank



(b) Describe fully the single transformation that maps triangle **A** onto triangle **B**.

.....

(2)

Q14

(Total 4 marks)



<p>15. There are some sweets in a bag.</p> <p>18 of the sweets are toffees. 12 of the sweets are mints.</p> <p>(a) Write down the ratio of the number of toffees to the number of mints. Give your ratio in its simplest form.</p> <p>..... : (2)</p> <p>There are some oranges and apples in a box. The total number of oranges and apples is 54 The ratio of the number of oranges to the number of apples is 1 : 5</p> <p>(b) Work out the number of apples in the box.</p> <p>..... (2)</p> <p>(Total 4 marks)</p>	<p>Leave blank</p> <p>Q15</p> <div></div>
<p>16. (a) Simplify $t^6 \times t^2$</p> <p>..... (1)</p> <p>(b) Simplify $\frac{m^8}{m^3}$</p> <p>..... (1)</p> <p>(Total 2 marks)</p>	<p>Q16</p> <div></div>



17. Here is a tile in the shape of a semicircle.

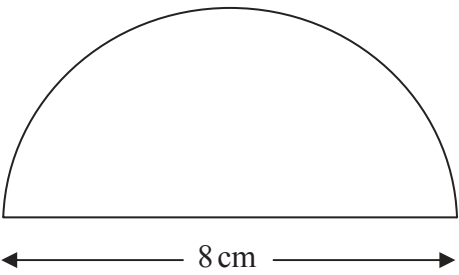


Diagram **NOT**
accurately drawn

The diameter of the semicircle is 8 cm.
Work out the perimeter of the tile.
Give your answer correct to 2 decimal places.

..... cm

(Total 3 marks)

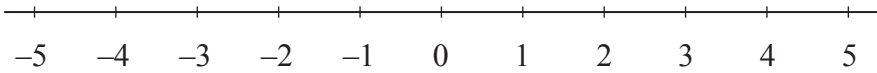
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Q17



18. (a) $x < -2$

Show this inequality on the number line.



Leave
blank

(2)

(b) Solve $5(y + 2) = 4 - 7y$

$y = \dots\dots\dots$

(3)

Q18

(Total 5 marks)

TOTAL FOR PAPER: 60 MARKS

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