

**Oxford Cambridge and RSA Examinations**  
**General Certificate of Secondary Education**

**Mathematics C (Graduated Assessment)**  
MODULE M2- SECTION A

**1966/2332A**

**Specimen Paper 2003**

Candidates answer on the question paper.

Additional materials:

Geometrical Instruments  
Tracing Paper (optional)

**TIME** 30 minutes

Candidate Name	Centre Number	Candidate Number										
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; height: 20px;"></td> <td style="width: 20%; height: 20px;"></td> <td style="width: 20%; height: 20px;"></td> <td style="width: 20%; height: 20px;"></td> <td style="width: 20%; height: 20px;"></td> </tr> </table>						<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; height: 20px;"></td> <td style="width: 20%; height: 20px;"></td> <td style="width: 20%; height: 20px;"></td> <td style="width: 20%; height: 20px;"></td> <td style="width: 20%; height: 20px;"></td> </tr> </table>					

**INSTRUCTIONS TO CANDIDATES**

- Write your name, Centre number and Candidate number in the boxes above.
- Answer **all** the questions.
- Write your answers, in blue or black ink, in the spaces provided on the question paper.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- There is a space after most questions. Use it to do your working. In many questions marks will be given for a correct method even if the answer is incorrect.

**INFORMATION FOR CANDIDATES**

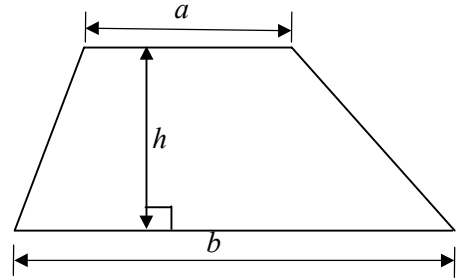
- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this section is 25.

For Examiners Use	
<b>Section A</b>	
<b>Section B</b>	
<b>Total</b>	

**WARNING**  
**You are not allowed to use a calculator in Section A of this paper**

## FORMULA SHEET: FOUNDATION TIER

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



- 1 A bag contains 1kg of sugar.



David uses 350 grams of the sugar.

How much sugar is left in the bag?

\_\_\_\_\_ g [1]

1
---

- 2 A cookery book gives these instructions for cooking a piece of meat.

*Cook for 20 minutes per pound and add on an extra 15 minutes.*

- (a) How long will it take altogether to cook a 2 pound piece of meat?

(a) \_\_\_\_\_ minutes [1]

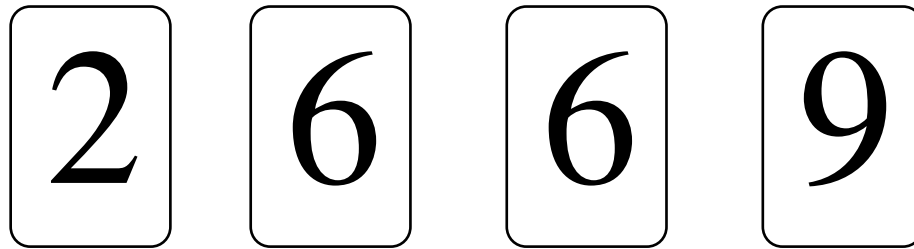
- (b) Jean is cooking a 2 pound piece of meat.  
She wants it to be ready at 1pm.

When must she start to cook it?

(b) \_\_\_\_\_ [1]

2
---

3 Charles is playing with these four cards.



The cards are shuffled.  
Charles then picks a card at random without looking.

(a) Look at these words.

likely      unlikely      evens  
impossible      certain

Choose the best word to complete the sentences below.

(i) It is \_\_\_\_\_ that Charles will pick a number greater than three. [1]

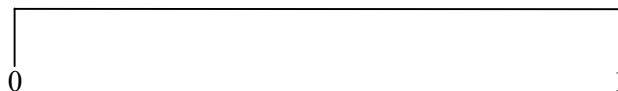
(ii) It is \_\_\_\_\_ that Charles will pick the number ten. [1]

(b) Use arrows to mark the probability of each of these events on the line below.

Label the arrows A and B

A: Charles picks a number greater than 3.

B: Charles picks the number 10.



[2]

4
---

- 4 A shop has this special offer on cola.

The cost of one can is 38p.



Jenny buys two cans of cola.

What does she pay for the two cans?

\_\_\_\_\_ p [2]

2
---

- 5 (a) Dipak has a hospital appointment at 9.45am.  
The appointment ends at 10.20am.

How long does the appointment last?

(a) \_\_\_\_\_ minutes [1]

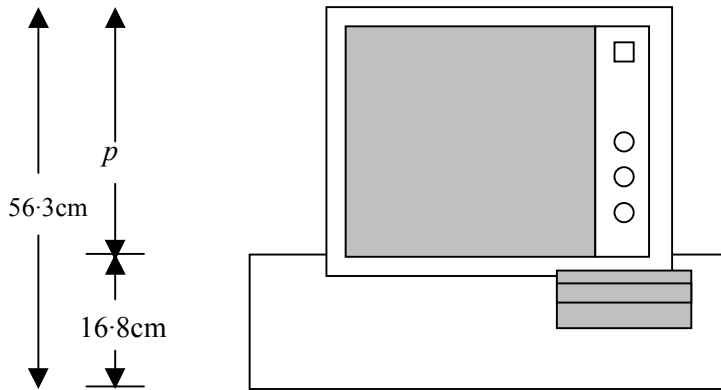
- (b) Dipak leaves the hospital at 10.40am.  
His journey home takes 45 minutes.

At what time does he arrive home?

(b) \_\_\_\_\_ [1]

2
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6 Work out the length marked  $p$ .



$p =$  \_\_\_\_\_ cm [2]

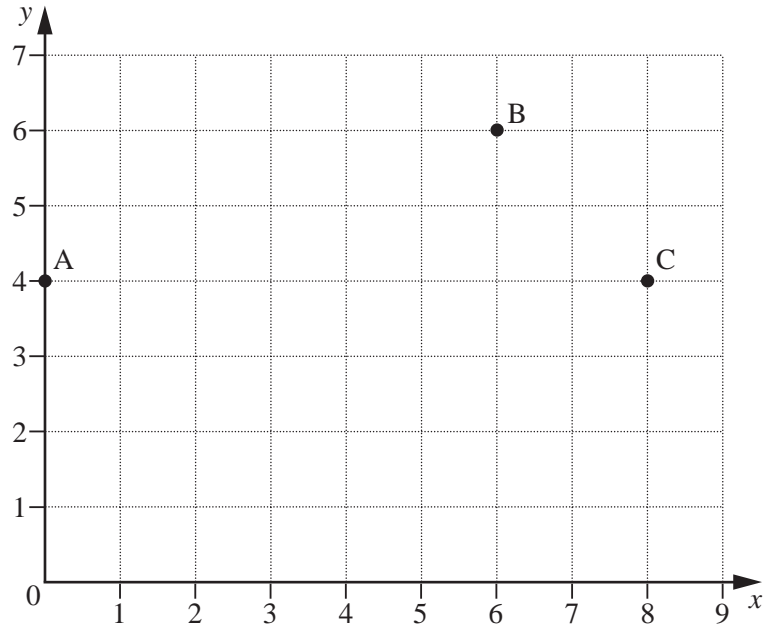
2	
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7 Fill in the missing numbers in this pattern.

$$\begin{array}{rclclcl}
 1 & \times & 9 & + & 11 & = & 20 \\
 12 & \times & 9 & + & 12 & = & 120 \\
 123 & \times & 9 & + & 13 & = & 1120 \\
 1234 & \times & 9 & + & 14 & = & 11120 \\
 12345 & \times & 9 & + & 15 & = & \underline{\hspace{2cm}} \\
 \underline{\hspace{2cm}} & \times & 9 & + & \underline{\hspace{2cm}} & = & 1111120
 \end{array}$$

[2]

2	
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(a) Write down the co-ordinates of the point C.

(a) ( \_\_\_\_\_ , \_\_\_\_\_ ) [1]

(b) D is the point (6,2).

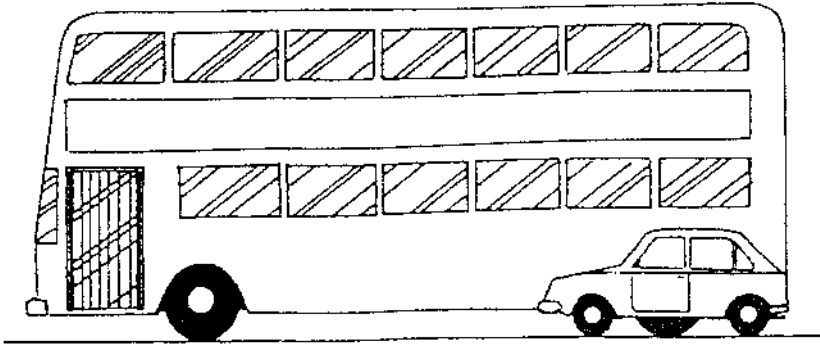
Mark the point on the grid and label it D. [1]

(c) Join A to B to C to D to A.

Draw in the line of symmetry of your shape. [1]

3	

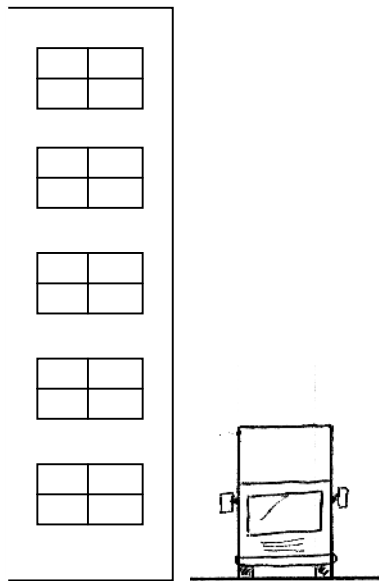
- 9 (a) The car in this picture is about 3 m long.



About how long is the bus?

(a) \_\_\_\_\_ m [1]

- (b) The building in this picture is about 16 m high.



About how high is the lorry?

(b) \_\_\_\_\_ m [1]

2
---



- 10 Tom buys five packets of sweets and one bottle of lemonade.  
The packets of sweets cost 53p each and the lemonade costs 89p.  
He pays with a £10 note.

How much change does he receive?

\_\_\_\_\_ [3]

3
---

- 11 Mary asked seven of her friends how many CDs they owned.  
Here are her results.

8    7    12    10    4    7    11

Find the median of these numbers.

\_\_\_\_\_ [2]

2
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**Oxford Cambridge and RSA Examinations**  
**General Certificate of Secondary Education**

**Mathematics C (Graduated Assessment)**  
MODULE M2- SECTION B

**1966/2332B**

**Specimen Paper 2003**

Candidates answer on the question paper.

Additional materials:

Geometrical Instruments  
Tracing Paper (optional)  
Electronic Calculator

**TIME** 30 minutes

Candidate Name
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Centre Number
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Candidate Number
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**INSTRUCTIONS TO CANDIDATES**

- Write your name, Centre number and candidate number in the boxes above.
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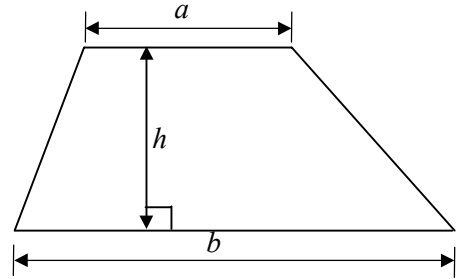
**INFORMATION FOR CANDIDATES**

- You are expected to use a calculator in Section B of this paper.
- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this section is 25.

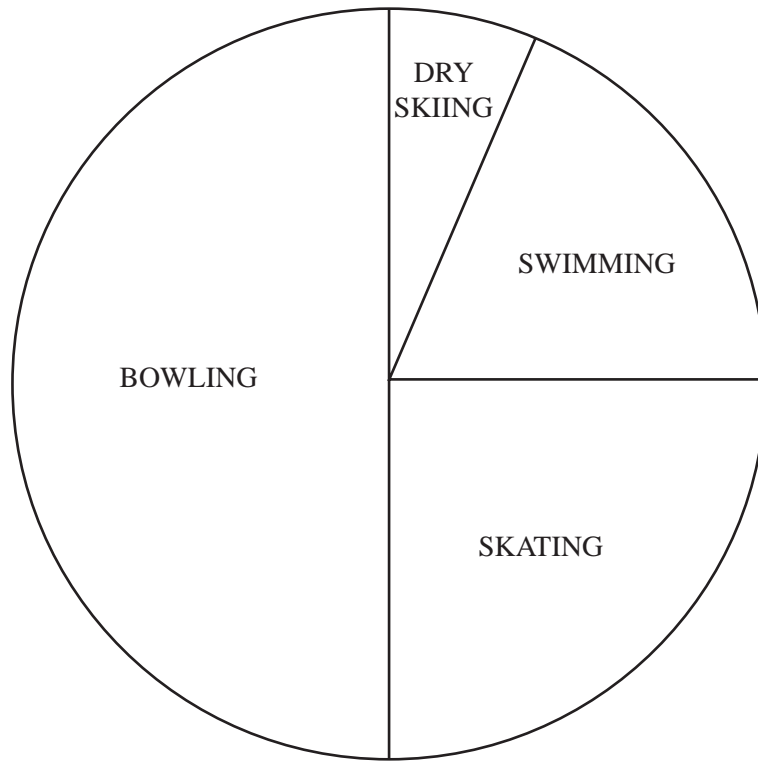
For Examiners Use	
<b>Section B</b>	

**FORMULA SHEET: FOUNDATION TIER**

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



12 This pie chart shows which end of term activity a class of pupils preferred.



(a) Half of the pupils prefer bowling.  
What percentage is this?

(a) \_\_\_\_\_% [1]

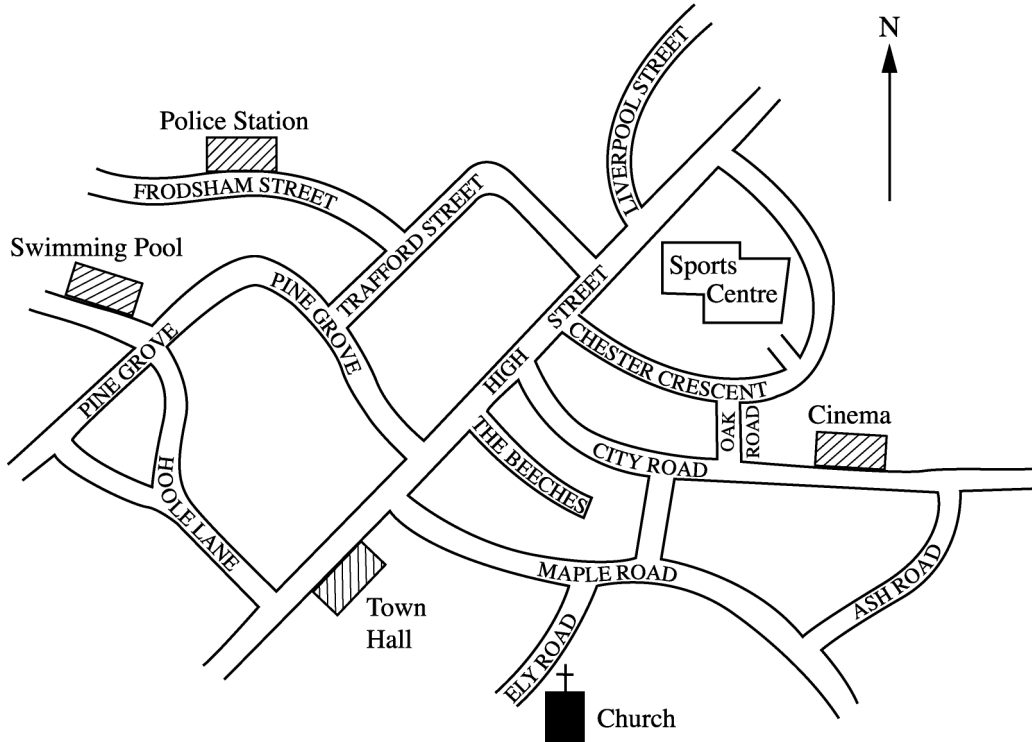
(b) What percentage prefer skating?

(b) \_\_\_\_\_% [1]

(c) There are 32 pupils in the class.  
How many pupils prefer skating?

(c) \_\_\_\_\_ [2]

4
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- (a) Howard leaves the cinema and turns right into City Road. He takes the second turning on the left and then the first turning on the right.

What is the name of the road he is in now?

(a) \_\_\_\_\_ [1]

- (b) A policeman is on duty at the Town Hall.

Complete these instructions to get from the Town Hall to the Police Station.

Turn right out of the Town Hall, then \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ [1]

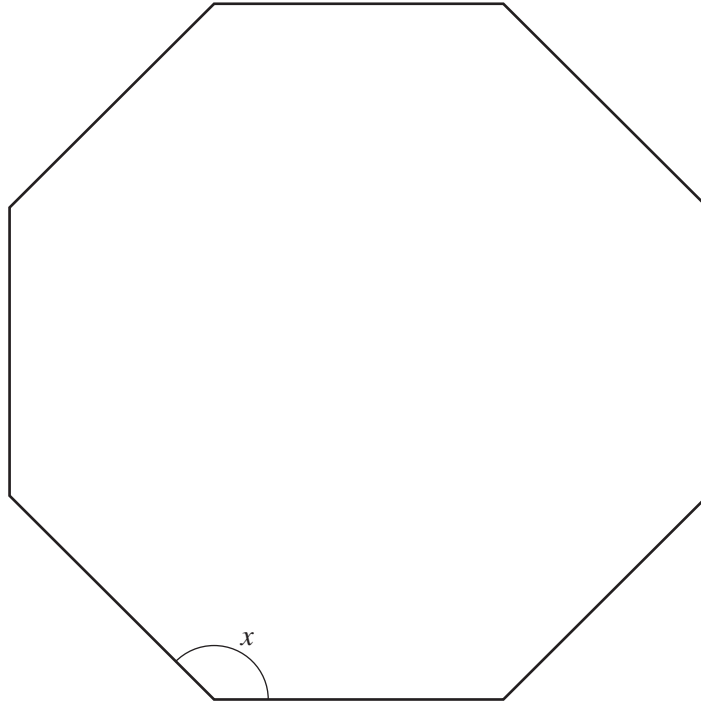
- (c) A bus turns right out of Liverpool Street and travels along High Street.

In which compass direction is the bus travelling?

(c) \_\_\_\_\_ [1]

3	

14 (a) Look at this shape.



(i) Measure the size of angle  $x$ .

(a)(i)  $x =$  \_\_\_\_\_<sup>°</sup> [1]

(ii) One of these words is the name of the shape.  
Draw a ring round the correct name.

hexagon

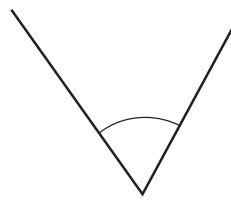
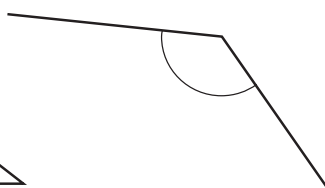
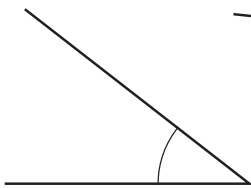
square

pentagon

octagon

[1]

(b) Which of these angles are acute?



Write Yes  
or No

.....

.....

.....

.....

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

[2]

4	
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- 15 Janet has £3.  
Bags of crisps cost 46p.



- (a) How many bags could Janet buy?

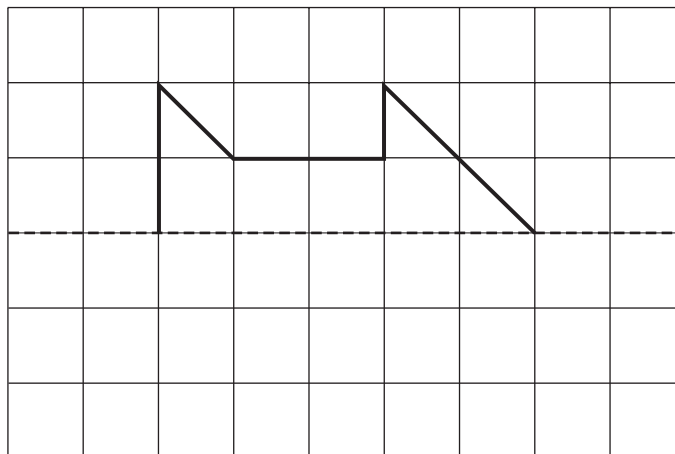
(a) \_\_\_\_\_ [2]

- (b) How much change would she get?

(b) \_\_\_\_\_ p [1]

3	

- 16 Complete this diagram so the dashed line is the only line of symmetry.



[2]

2	



17 The diagram shows some patterns made with matches.



(a) Complete the table.

<b>Pattern</b>	1	2	3	4	5
<b>Number of matches</b>	3	5			

[1]

(b) Which pattern can be made with exactly 15 matches?

(b) \_\_\_\_\_ [1]

(c) Explain how you could work out the number of matches needed for Pattern 12 without doing any drawing.

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[2]

4	
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- 18 This table shows the price of one weeks holiday at two hotels.

Dates	PRICES (£) FOR ONE ADULT	
	HOTEL ISIS	HOTEL REGENT
8 May – 11 June	384	348
12 June – 2 July	420	371
3 July – 19 July	443	396
20 July – 24 Aug	481	418
25 Aug – 14 Sept	465	393
15 Sept – 30 Sept	395	370
<b>Children under 15 – HALF PRICE</b>		

Mr and Mrs Evans plan to stay at the Hotel Regent for one week.  
They have three children aged 10, 11 and 13.  
Their holiday will start on 22 July.

- (a) What is the price for one child?

(a) £ \_\_\_\_\_ [2]

- (b) Work out the total cost of the holiday for the family.

(b) £ \_\_\_\_\_ [3]

5
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**Oxford Cambridge and RSA Examinations**

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**Mathematics C (Graduated Assessment)**  
MODULE M2

**1966/2332**

**MARK SCHEME**

**Specimen Paper 2003**

**SECTION A**

<b>1</b>	650	W1			<b>[1]</b>
<b>2</b>	<b>(a)</b> 55	W1			
	<b>(b)</b> 1205 o.e	W1			<b>[2]</b>
<b>3</b>	<b>(a) (i)</b> Likely	W1			
	<b>(ii)</b> Impossible	W1			
	<b>(b)</b> A at 5.5 – 6.5 cm from 0 B at 0	W1 W1			<b>[4]</b>
<b>4</b>	57	W2	M1 19 seen	A1 57	<b>[2]</b>
<b>5</b>	<b>(a)</b> 35	W1			
	<b>(b)</b> 11.25(am)	W1			<b>[2]</b>
<b>6</b>	39.5	W2	M1 56.3 – 16.8	A1 39.5	<b>[2]</b>
<b>7</b>	111120 123456, 16	W1 W1			<b>[2]</b>
<b>8</b>	<b>(a)</b> (8,4)	W1			
	<b>(b)</b> D plotted	W1			
	<b>(c)</b> Line of symmetry drawn	W1			<b>[3]</b>
<b>9</b>	<b>(a)</b> 9 – 11m	W1			
	<b>(b)</b> 3.5 – 5 m	W1			<b>[2]</b>
<b>10</b>	£6.46 or 646p	W3	M1 5 × 53 or 265 seen M1 10 – ‘their total’	W2 646 or 6.46	<b>[3]</b>
<b>11</b>	8	W2	M1	ordering	<b>[2]</b>

**Section A total: 25**

**SECTION B**

<b>12</b>	<b>(a)</b> 50	W1	
	<b>(b)</b> 25	W1	
	<b>(c)</b> 8	W2	M1 $\div$ by 4 A1 8
<b>[4]</b>			
<hr/>			
<b>13</b>	<b>(a)</b> Pine Grove	W1	
	<b>(b)</b> 1 <sup>st</sup> left, 1 <sup>st</sup> right, 1 <sup>st</sup> left	W1	
	<b>(c)</b> South west	W1	
<b>[3]</b>			
<hr/>			
<b>14</b>	<b>(a) (i)</b> $135 \pm 2^\circ$	W1	
	<b>(ii)</b> Octagon	W1	
	<b>(b)</b> Yes, No, Yes, No	W2	W1 three correct
<b>[4]</b>			
<hr/>			
<b>15</b>	<b>(a)</b> 6	W2	M1 $300 \div 46$ A1 6
	<b>(b)</b> 24	W1	
<b>[3]</b>			
<hr/>			
<b>16</b>	Completed shape	W2	W1 3 lines correct
<b>[2]</b>			
<hr/>			
<b>17</b>	<b>(a)</b> 7, 9, 11	W1	
	<b>(b)</b> Pattern 7	W1	
	<b>(c)</b> Add 2 seven times o.e	W2	W1 add 2
<b>[4]</b>			
<hr/>			
<b>18</b>	<b>(a)</b> 209	W2	M1 $418 \div 2$
	<b>(b)</b> 1463	W3	M1 $2 \times 418$ or $3 \times$ their 'a' M1 $836 + 627$ A1 1463
<b>[5]</b>			

**Section B total: 25****Total mark available: 50**

<b>MODULE: M2</b>														Grades				
Question	Topic	Syll ref	Mod Ref	N	22	0	6	14	7	3	2	2	4	Units	Acc	<G	G	F
1	Units	F3/4a	S2.2					1										1
2	Rule / Time	F2/4a, 5f	A2.2, N2.5	1		1											2	
3	Probabilities	F4/5g, 4c	D1.1, D2.1						4								2	2
4	Money	F2/3a, 3c, 3j	N1.5, N1.4	2													2	
5	Time	F2/4a	N2.5	2													2	
6	Decimals	F2/3a, 3l, 3j	N2.1	2														2
7	Pattern	F2/1j	A2.1			2											2	
8	Coords / Sym	F2/6b, F3/3a, 3b	A1.3, S2.5					3									3	
9	Estimation	F3/4a	S2.1					2									2	
10	Money	F2/3a, 3l, 3j	N2.1, N2.2	3						2			3	1			3	
11	Median	F4/4b	D2.2						2								2	
	<b>Section A</b>			<b>10</b>			<b>3</b>	<b>6</b>	<b>6</b>	<b>2</b>			<b>3</b>	<b>1</b>				
12	Pie Chart	F2/3c	N2.4	4							3						4	
13	Directions	F3/4b	S2.6					3									3	
14	Angles	F3/1f, 2b, 4d	S2.3					4									3	1
15	Money	F2/3a, 4b, 4d	N2.3	3														3
16	Symmetry	F3/3b	S2.5					2									2	
17	Pattern	F2/1j, 6a	A2.1				4										2	2
18	Two-way table/money	F4/3c, F2 3j, 3k	D2.3	4					1	2		2	3				5	
	<b>Section B</b>			<b>11</b>			<b>4</b>	<b>9</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>					
	<b>Total</b>			<b>21</b>			<b>7</b>	<b>15</b>	<b>7</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>1</b>			<b>39</b>	<b>11</b>