Mathematics C (Graduated Assessment)   **1966/2334A**
MODULE M4 – SECTION A

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

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

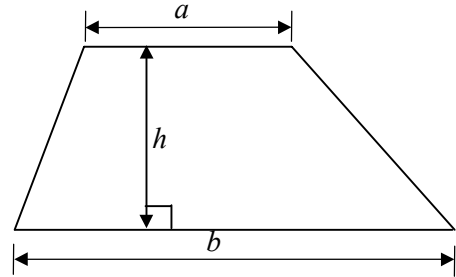- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this Section is 25.

For Examiner's Use	
Section A	
Section B	
Total	

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, B, C** and **D** are the corners of a rectangle.
      A is plotted on the grid below.
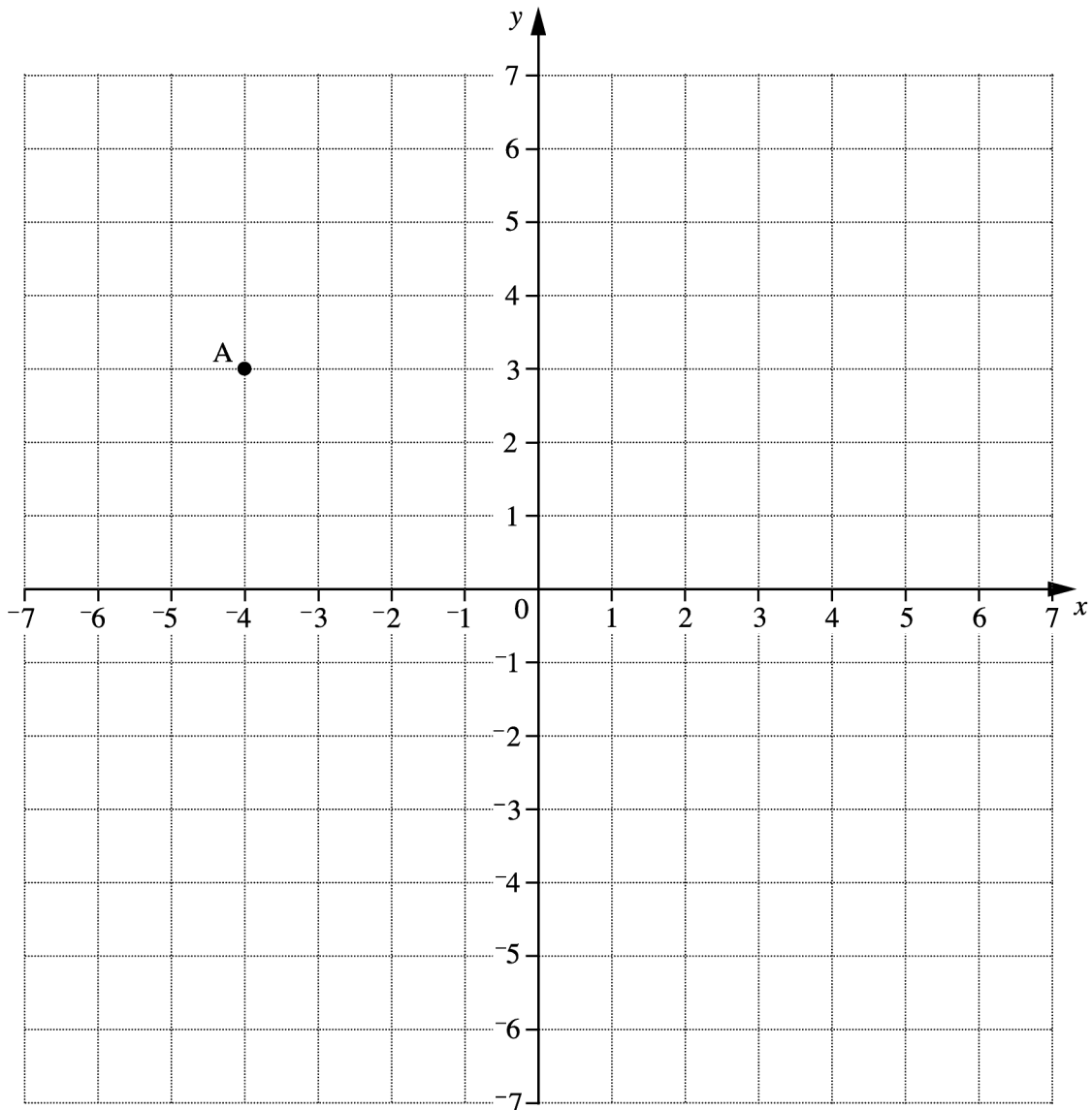
(a)   **B** is the point (4, 3) and **C** (4, ⁻2).

        Plot and label the points **B** and **C**.   [1]

(b)   Draw the complete rectangle and label the fourth corner **D**.   [1]

(c)   Write down the co-ordinates of **D**.

        (c) (_____,_____) [1]

        3

2 This table shows the equivalent female clothing sizes used in Britain, America and France.

Britain (B)	10	12	14	16	18
America (A)	8	10	12	14	16
France (F)	40	42	44	46	48

Write down the formula connecting

(a) the British size (B) with the American size (A),

(a) _____ [1]

(b) the French size (F) with the American size (A).

(b) _____ [1]

2

3   Darren is measuring the length of screws using a ruler marked in inches.

A

B
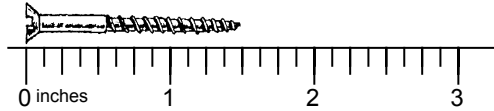
(a)   What is the length of screw A?

(a)_____inches [1]

(b)   How much longer is screw B than screw A?

(b)_____inches [2]

3	

4   Vanilla ice cream contains 20% carbohydrate.

(a)   Write 20% as a fraction.

(a)_____ [1]

(b)   Matt has a 120 g portion of ice cream.

How much is carbohydrate?

(b)_____ g [2]

3	

5 Janet throws two ordinary 6-sided dice.
Her score is the difference between the numbers on the two dice.
She throws the dice 50 times.

This bar chart shows her scores.
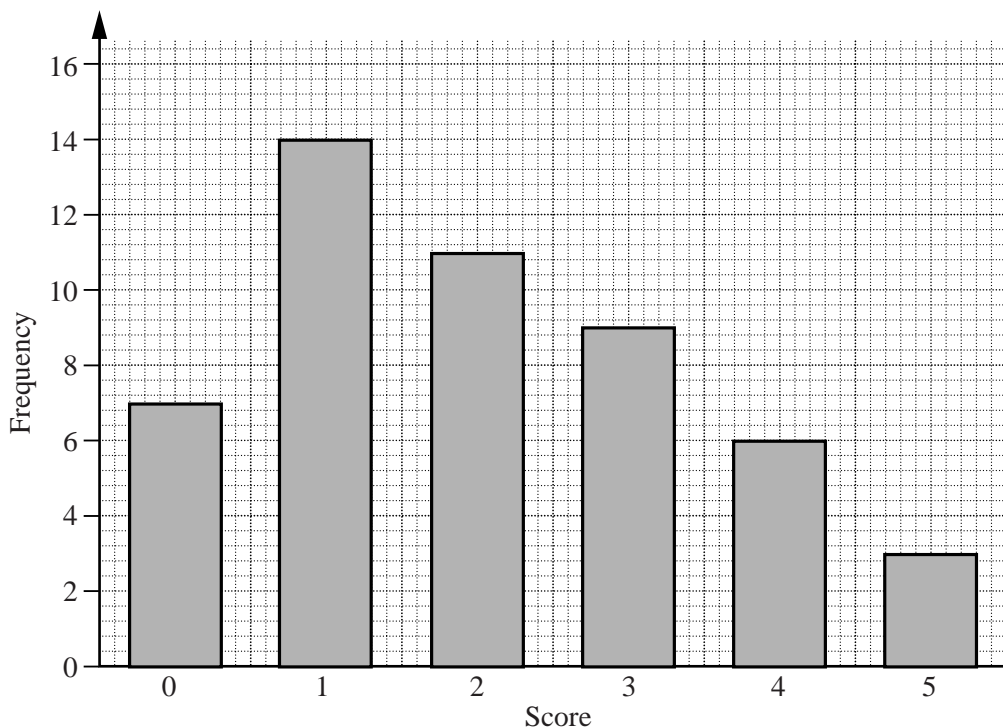
(a) Which score is most likely to occur?

(a)_____[1]

(b) What is the probability of getting a score of 4?

(b)_____[2]

(c) Which is more likely, a score of 0 or a score of 5?
Give a reason for your answer.

_____ because _____

_____[1]

4

6   One length of a local swimming pool is 25 metres.

(a)   Amy wants to swim 800 metres in this pool.

How many lengths does she have to swim?

(a) _____ lengths [2]

(b)   Another day she swam 121 lengths.

How many metres is this?

(b) _____ m [3]

5

7 Neelesh travelled from Liverpool to Carlisle.

The graph shows his journey.
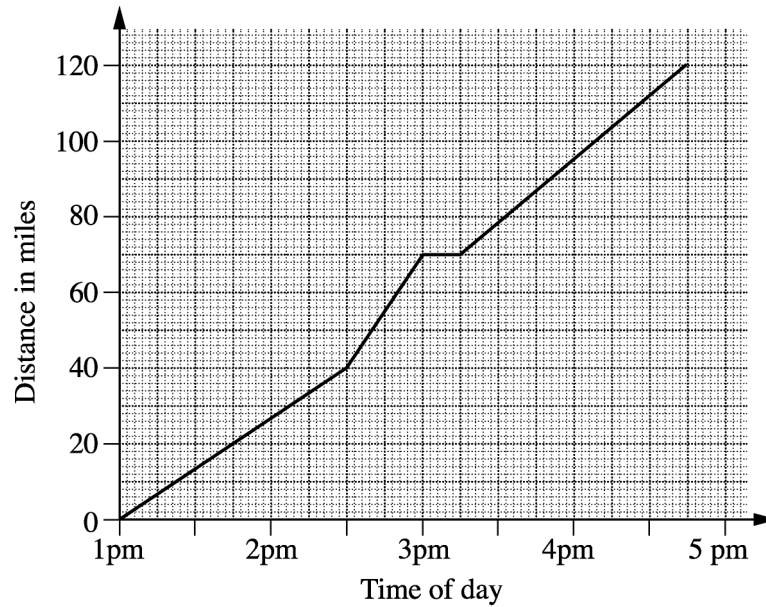
(a) How far had he travelled by 2.30pm?

(a)_____miles [1]

(b) He stopped for tea on the journey.

    (i) At what time did he stop?

(b)(i)_____[1]

    (ii) For how long did he stop?

(ii)_____minutes [1]

(c) For 30 minutes he travelled fast on a motorway.
What was his average speed for this part of the journey?

(c)_____mph [2]

Mathematics C (Graduated Assessment) **1966/2334B**
MODULE M4 – SECTION B

Specimen Paper 2003

Candidates answer on the question paper.

Additional materials:

Geometrical Instruments
Tracing Paper (optional)
Electronic Calculator

TIME 30 minutes.

Candidate Name	Centre Number	Candidate Number

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.
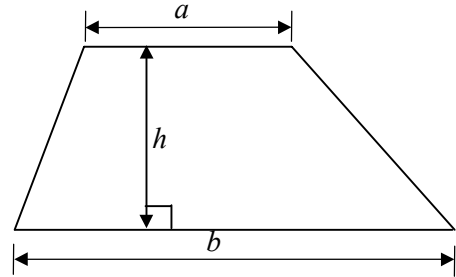
INFORMATION FOR CANDIDATES

- 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 Examiner's Use	
Section B	

FORMULA SHEET: FOUNDATION TIER

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

8   Here are five lengths in centimetres.

   2·01   2·1   2·09   2·19   2·091

   Write these lengths in order, smallest first

                                                                                              [2]

   2 ☐

9   For each of these shapes write down the order of rotation symmetry.
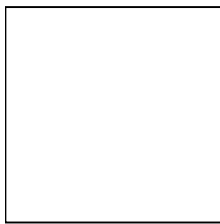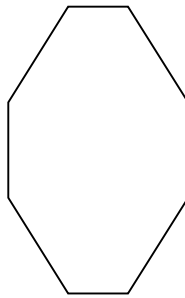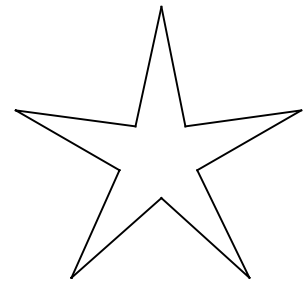
   _____   _____   _____   [3]

                                                             3 ☐

10 This graph shows the lengths of cars' skid marks for different speeds.
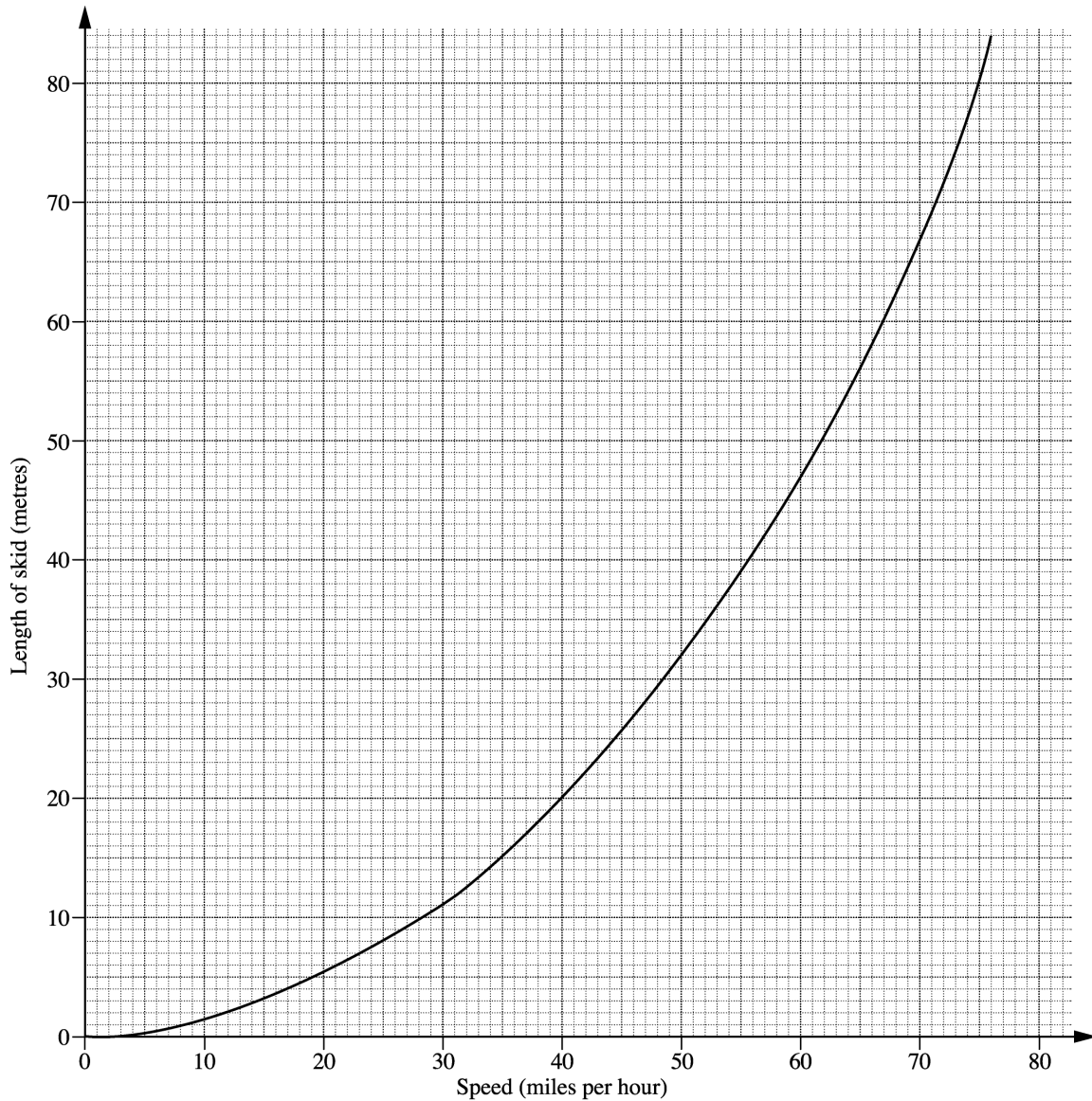
Use the graph to answer these questions.

(a) A car is travelling at 60 miles per hour when it starts to skid.

How long will the skid be?

(a)_____m [1]

(b) After an accident the skid marks were 40 m long.

How fast was the car travelling?

(b)_____mph [1]

2

11 Look at these numbers.

$$2 \qquad 4 \qquad 5 \qquad 9 \qquad 11 \qquad 12$$

Use numbers from this list to complete these sentences.

(a) _____ is a multiple of 6. [1]

(b) _____ is a factor of 6. [1]

(c) _____ is a common factor of 15 and 30. [1]

3

12 This is a rough sketch of a piece of land.
It is in the shape of a right-angled triangle.

64 m

85 m
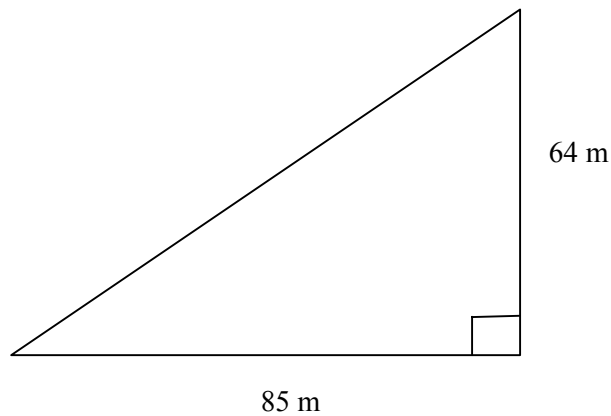
Calculate the area of the piece of land.

_____ [3]

3

13 This bar chart compares the average amount spent per person in a week eating out with the amount spent on takeaways.
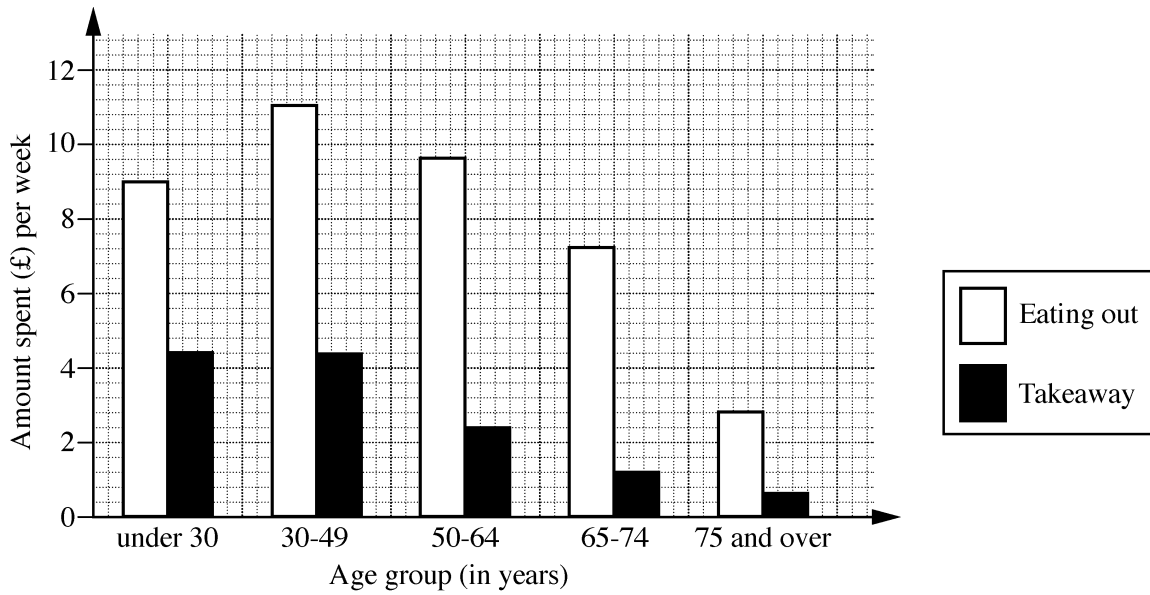
(a) Which age group spent the most on eating out?

(a) _____ [1]

(b) Which age groups spent less than £4 a week on takeaways?

_____ [1]

(c) About how much per person did the 65 to 74 year olds spend on eating out?

(c) £_____ [1]

3

14   Jane bought £22·65 worth of petrol. It cost 75·5 pence per litre.

   How many litres of petrol did she buy?

_____ litres [3]

3

15   The Beeches hotel caters for wedding parties.
   The hotel uses this formula to work out the cost.

$$C = 10n + 50$$

   C is the cost in pounds,
   n is the number of people in the party.

(a)   What will it cost for a party of 30 people?

(a) £ _____ [1]

   Another hotel, The Oaks, uses this formula.
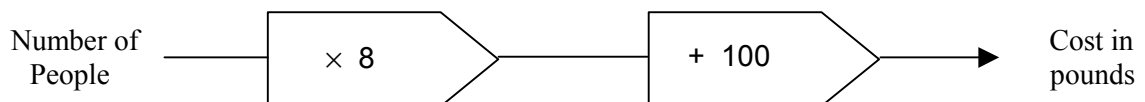
(b)   Write this formula connecting *C* and *n.*

   C is the cost in pounds,
   n is the number of people in the party.

(b) _____ [2]

3

16 In this diagram LM and NP are straight lines.

Not drawn accurately
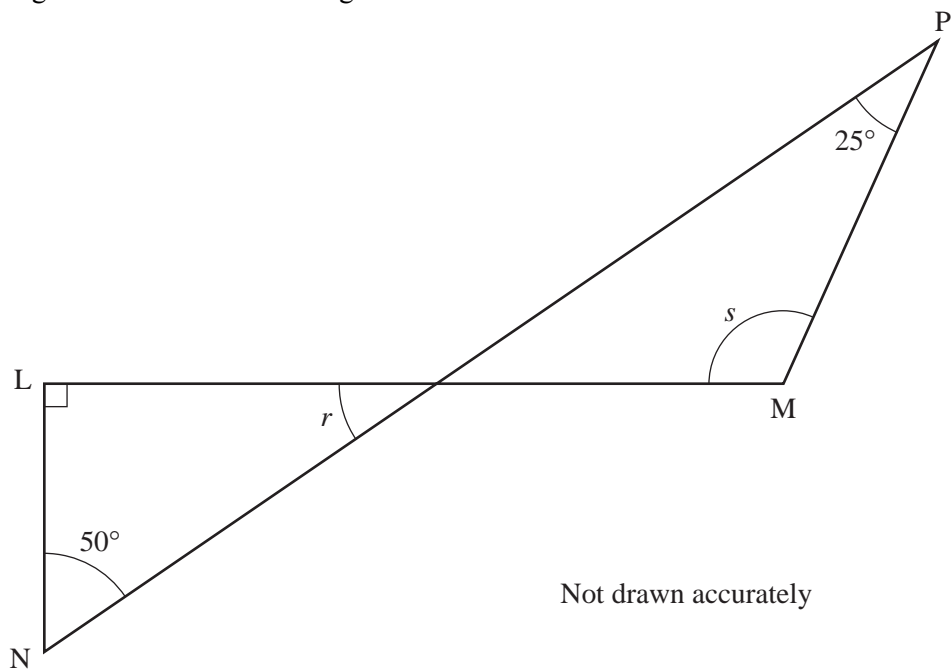
(a) Work out the size of angle *r*.

$r =$ _____ ° [1]

(b) Work out the size of angle *s*.

$s =$ _____ ° [2]

3

Oxford Cambridge and RSA Examinations

General Certificate of Secondary Education

Mathematics C (Graduated Assessment)
MODULE M4

1966/2334

MARK SCHEME

Specimen Paper 2003

SECTION A

1	**(a)** B and C plotted		W1	
	(b) D at (− 4 , − 2)		W1	
	(c) (− 4 , − 2)		W1	f.t. their B
			[3]	

2	**(a)** B = A + 2		W1	
	(b) F = A + 32		W1	
			[2]	

3	**(a)** 5/8		W1	
	(b) 7/8		W2	M1 $1\frac{1}{2} - \frac{5}{8}$ seen
			[3]	

4	**(a)** $\frac{1}{5}$ or $\frac{2}{10}$		W1	
	(b) 24		W2	M1 10% of 120 = 12
			[3]	

5	**(a)** 1		W1	
	(b) $\frac{6}{50}$		W2	M1 6 or 50
	(c) 0 because it occurs more often		W1	
			[4]	

6	**(a)** 32		W2	M1 800 ÷ 25
	(b) 3025		W3	M1 121 × 25
				M1 2420 or 605
			[5]	

7	**(a)** 40		W1	
	(b) **(i)** 3 pm		W1	
	(ii) 15 minutes		W1	
	(c) 60 m.p.h		W2	M1 30 miles seen
			[5]	

Total for Section A: 25

8	2.01, 2.09, 2.091, 2.1, 2.19	W2	W1 for 2.01 first, 2.19 last
		[2]	

9	4	W1	
	2	W1	
	5	W1	
		[3]	

10	**(a)** 46 – 48	W1	
	(b) 55 - 56	W1	
		[2]	

11	**(a)** 12	W1	
	(b) 2	W1	
	(c) 5	W1	
		[3]	

12	2720 m^2 (or square metres)	W3	M1 $85 \times 64 \div 2$
			or W2 2720
		[3]	

13	**(a)** 30 – 49	W1	
	(b) 50 – 64, 65 – 74, 75 and over	W1	
	(c) £7·10 – £7·30	W1	
		[3]	

14	30	W3	M2 22.65 ÷ 0.755
		[3]	or M1 22.65 ÷ 75.5

15	**(a)** £350	W1	
	(b) C = 8n + 100	W2	W1 8n
		[3]	

16	**(a)** 40º	W1	M1 180-(25+40)
	(b) 115º	W2	
		[3]	

Total for Section B: 25

Total mark available: 50

MODULE: M4

				18	0	10	14	7	3	2	2	4			Grades		
Question	Topic	Syll Ref	Mod Ref	N	Man A	nMan A	SSM	HD	UA1	UA2	UA3	Multi-s	Units	Acc	G	F	E
1	Coordinates	F3/3e, F2/6b	S4.3				3									3	
2	Formula	F2/5f, F2/1c	A4.2			2			2							2	
3	Fractions	F2/3c, F2/1c	N4.4	3						2						1	2
4	Percentages	F2/2e, 3e	N3.5,N4.2	3												3	
5	Probabilty	F4/4d, 1h	D4.1					4			2					1	3
6	Multiplication/Division	F2/3k	N4.3	5												5	
7	Travel Graph	F2/6e, 1a, F3/4c	A4.3			3	2		2			2				1	4
	Section A Totals			**11**		**5**	**5**	**4**	**4**	**2**	**2**	**2**					
8	Decimals	F2/2d	N4.2	2												2	
9	Rotation	F3/3a, 3b	S4.5				3									3	
10	Graph	F2/6c	A4.3			2										2	
11	Numbers	F2/2a	N4.5	3												2	1
12	Area	F3/4f	S4.2				3						1				3
13	Graph	F4/5b	D4.3					3								3	
14	Division	F2/3a	N4.1	3												3	
15	Formula	F2/5f	A4.1,N4.2			3										3	
16	Angles	F3/2a, 2d, 1b	S4.1				3		2			2					3
	Section B Totals			**8**		**5**	**9**	**3**	**2**			**2**	**1**				
	Total			**19**		**10**	**14**	**7**	**6**	**2**	**2**	**4**	**1**			**34**	**16**

Mathematics C (Graduated Assessment)
Specimen Mark Scheme Paper M4