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.
*   Use blue or black ink. Pencil may be used for graphs and diagrams only.
*   Read each question carefully and make sure you know what you have to do before starting your answer.
*   In many questions marks will be given for a correct method even if the answer is incorrect.
*   Do **not** write in the bar code.
*   Do **not** write outside the box bordering each page.
*   WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED. ANSWERS WRITTEN ELSEWHERE WILL NOT BE MARKED.

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.

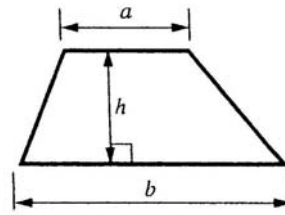**WARNING** You are not allowed to use a calculator in this paper.
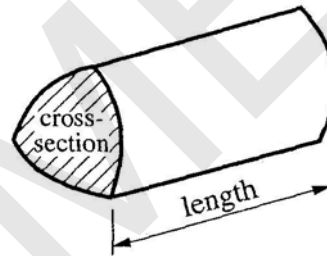
For Examiner's Use

Section A

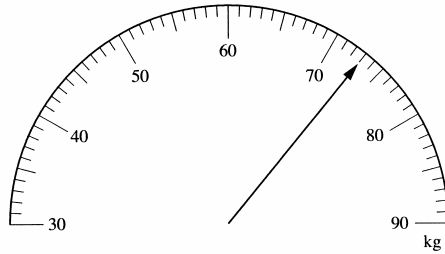**FORMULAE SHEET**

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

Volume of prism = (area of cross-section) x length

1 **(a)**

Paul weighs himself.
The scale shows Paul's weight.

How much does he weigh?

(a) _____ kg   [1]

(b) Paul now weighs himself carrying his rucksack.
The scale now shows 90 kg.

How much does the rucksack weigh?

(b) _____ kg   [1]

2

[Turn over

2 **(a)** Mary went to a garden centre. She bought 2 packets of seeds at 60p each.
She paid with a £5 note.

How much change did she receive?

(a) £ _____ [2]

(b) Martha bought 8 strawberry plants.
She paid 70p for each plant.

Work out the total cost of 8 plants.
Give your answer in pounds.

(b) £ _____ [2]

(c) Peter bought some raspberry canes.
He paid £16 for 10 canes.

Work out the cost of one cane.

(c) £ _____ [2]

6

3 Work out.

(a) $(9 \times 3) - (20 \div 5)$

(a) _____ [2]

(b) 4^2

(b) _____ [1]

(c) $\sqrt{36}$

(c) _____ [1]

4	

4 Solve.

(a) $4x = 12$

(a) _____ [1]

(b) $21 = t + 6$

(b) _____ [1]

2	

[Turn over

5 Hannah has these eight shapes.
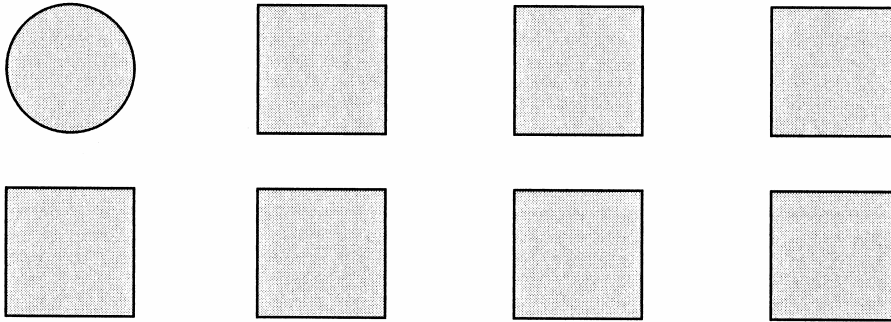
She picks one shape without looking.

(a) Hannah says

"The probability I pick a circle is $\frac{1}{2}$."

Is Hannah right or wrong?
Give a reason for your answer.

-- because _____

_____ [1]

(b) On the scale below, mark with arrows,

the probability she picks a square, S, [1]

the probability she picks a triangle, T. [1]

Label the arrows S and T.

3

6 Ishmael buys a packet of 40 balloons for a party.

(a) 25% of them are blue.

Work out 25% of 40.

(a) _____ % [2]
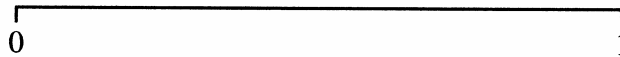
(b) $\frac{3}{5}$ of them are yellow.

Work out $\frac{3}{5}$ of 40.

(b) _____ [2]

4

[Turn over

7 Josh surveyed some students at his school about their favourite type of film.
The bar chart shows his results.
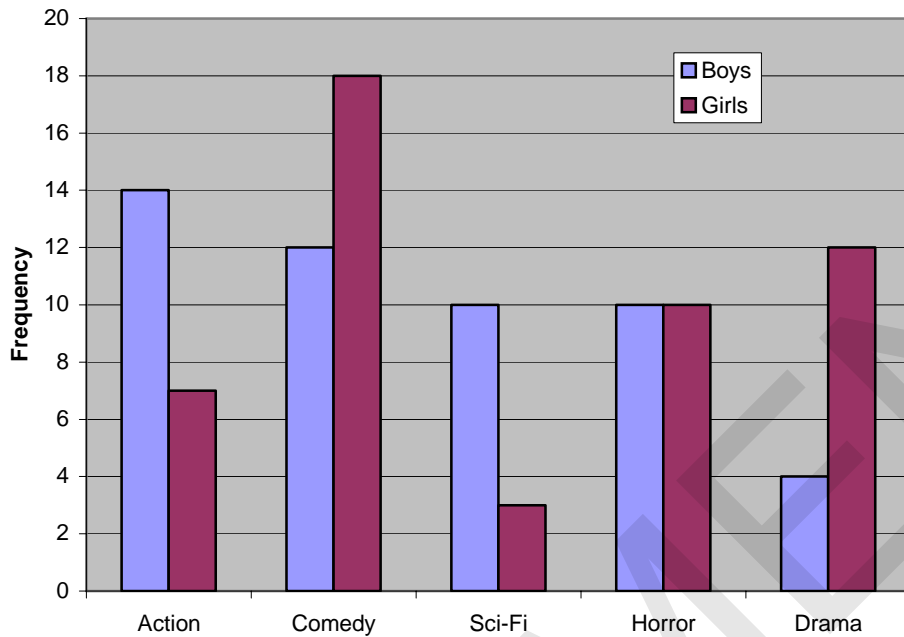
(a) How many girls chose Drama?

(a) _____ [1]

(b) How many more boys than girls chose Sci-Fi?

(b) _____ [1]

(c) Josh says
'The most popular type of film is Comedy.'
Explain how the bar chart shows that this is true.

--- [1]

(d) Comment on one **difference** between boys' and girls' favourite type of film.

--- [1]

4

Section A Total [25]

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10

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12

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MATHEMATICS C

B273/A

MODULE M3 – SECTION A

Specimen Mark Scheme

The maximum mark for this paper is 25.

This document consists of **3** printed pages and **1** blank page.

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1	a)	73	1			
	b)	17	1			f.t. for 90 – their (a)
			2			

2	a)	£3·80	2			**B1** for digits '38' Or **M1** for (£)5 – their 2 x 60(p)
	b)	5·60	2			**M1 f**or 8 x 70 seen or figs 56 seen
	c)	1·60	2			**M1 f**or 16 ÷ 10
			6			

3	a)	23	2			**M1** for 27 or 4 seen *or* for answer 31
	b)	16	1			
	c)	6	1			
			4			

4	a)	3	1			**Accept** embedded answers in either part
	b)	15	1			
			2			

5	a)	Wrong: 1 circle out of 8	1			Reason essential
	b)	**S** at between 0·5 and 2·5 cm from [1]	1			No labels scores a maximum of 1 mark in (b)
		T at between 0 and 0·5 cm from [0]	1			
			3			

6	a)	10	2			**M1** for $\frac{25}{100}$ x 40 *or* **W1 f**or 50% = 20
	b)	24	2			**M1** for $\frac{3}{50}$ x 40 *or* **W1** for 8 seen
			4			

7	a)	12	1			
	b)	7	1			
	c)	Greater total for girls + boys than for any other type	1			Must mention total of both bars
	d)	Comment about a difference	1			Must include a comparison
			4			

Section A Total 25

Assessment Objectives Grid

Question	AO2	AO3	AO4	Total
1		2		**2**
2	6			**6**
3	4			**4**
4	2			**2**
5			3	**3**
6	4			**4**
7			4	**4**
Totals	**16**	**2**	**7**	**25**

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