

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
General Certificate of Secondary Education

MATHEMATICS B (MEI)
PAPER 2 SECTION A
FOUNDATION TIER

1968/2314A

Wednesday **15 JUNE 2005** Morning 1 hour

Candidates answer on the question paper.

Additional materials:

Geometrical instruments

Tracing paper (optional)

Candidate Name	Centre Number	Candidate Number											
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> </tr> </table>							<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> <td style="width: 15px; height: 15px;"></td> </tr> </table>					

TIME 1 hour

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.
- Show all your working. Marks may be given for working which shows that you know how to solve the problem, even if you get the answer wrong.

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 50.



WARNING

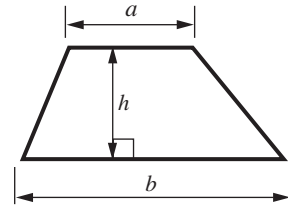
You are not allowed to use a calculator in Section A of this paper.

FOR EXAMINER'S USE	
Section A	
Section B	
TOTAL	

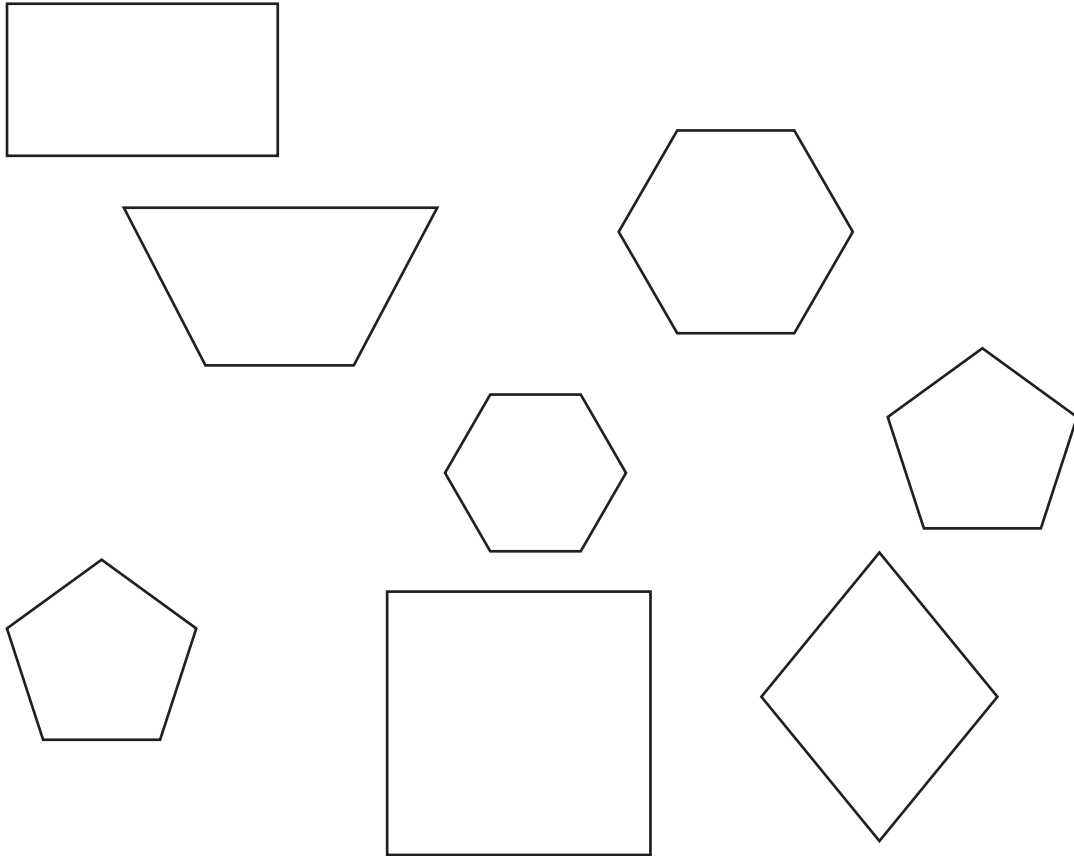
This question paper consists of 12 printed pages.

Formula Sheet: Foundation Tier

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



1



(a) Two of these shapes are congruent.

Put a tick [✓] in these two shapes.

[1]

(b) One of these shapes is a trapezium.

Put a cross [X] in this shape.

[1]



- (a) Measure the length of the line AB.
Give the units of your answer.

(a)[2]

- (b) Draw a line through point C which is perpendicular to the line AB. [1]

- (c) Draw a line through point D which is parallel to the line AB. [1]

3 (a) Keith's flower bed has 100 plants in it.

It has 48 geraniums,
27 busy lizzies,
20 dahlias.

The rest are fuchsias.

(i) How many fuchsias are there?

(a)(i)[2]

(ii) What fraction of the 100 plants are busy lizzies?

(ii)[1]

(b) Linda's flower bed has 60 plants in it.

(i) 50% of them are asters.

How many asters are there?

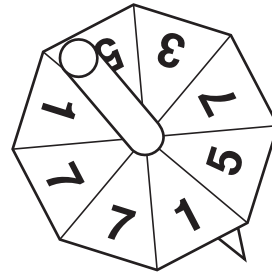
(b)(i)[1]

(ii) $\frac{2}{5}$ of the 60 plants are marigolds.

How many marigolds are there?

(ii)[2]

4 (a) This spinner is spun once.



certain

impossible

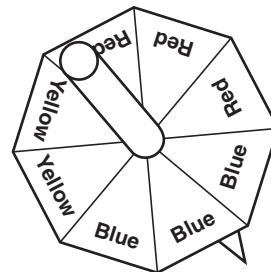
likely

unlikely

Choose the best of these words to complete the following for the spinner.

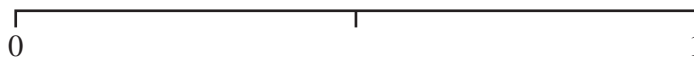
- (i) Landing on an odd number is [1]
- (ii) Landing on 10 is [1]
- (iii) Landing on a number less than 2 is [1]

(b) Another spinner is coloured as shown.



(i) This spinner is spun once.

Here is a probability scale.



Mark with Y the probability that the spinner lands on Yellow. [1]

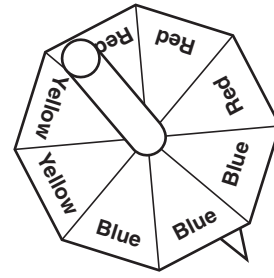
Mark with G the probability that the spinner lands on Green. [1]

- (ii) The same spinner is spun twice.

List all the pairs of colours that can be obtained.

One has been done for you.

You may not need all the rows in the table.



First spin	Second spin
R	Y

[2]

- 5 (a) Find 2^3 .

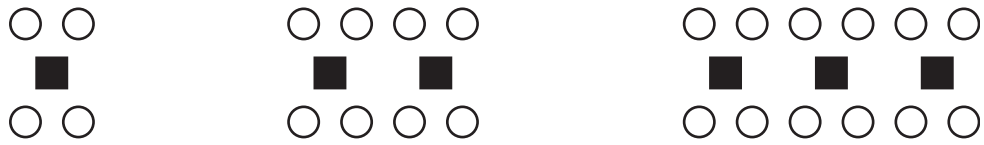
(a)[1]

- (b) Work this out, giving your answer as a fraction in its simplest terms.

$$\frac{2}{3} \times \frac{1}{10}$$

(b)[2]

6 Here is a sequence of patterns.



(a) Draw the next pattern in the sequence.

[2]

(b) Complete this table for the sequence.

Number of squares	1	2	3	4	5
Number of circles	4				

[1]

(c) One pattern has 12 squares.

How many circles does it have?

(c)[1]

(d) Describe the rule for continuing the sequence for the number of circles.

.....
[1]

7 Work out the cost of 1.6 kg of tomatoes at £1.50 per kg.

£[2]

8 Work out the following.

(a) $4 + 6 \times 5$

(a)[1]

(b) $12 - (6 + 1)$

(b)[1]

(c) 542×61

(c)[3]

- 9 (a) This table shows the ages of people who use the gym at the health club one day. There are 189 people altogether.

Age in years on last birthday	Number of people
0 to 9	5
10 to 19	16
20 to 29	23
30 to 39	37
40 to 49	43
50 to 59	30
60 to 69	20
70 to 79	13
80 to 89	2

One of these people is chosen at random.
Find the probability that this person's age on the survey day is

- (i) under 10,

(a)(i)[1]

- (ii) 50 or over.

(ii)[2]

- (b) This notice was at the health club in January.

Battle of the sexes!
450 males
660 females
had a swim over the Christmas period.

Write the ratio of males to females as simply as possible.

(b) :[2]

- (c) There were 50 people at the health club one lunchtime.
30 of them were female.

What percentage of the people at the health club were female?

(c)[2]

- 10 Una takes 4 minutes to knit 140 stitches.

At this rate, how many stitches will she knit in 30 minutes?

.....[3]

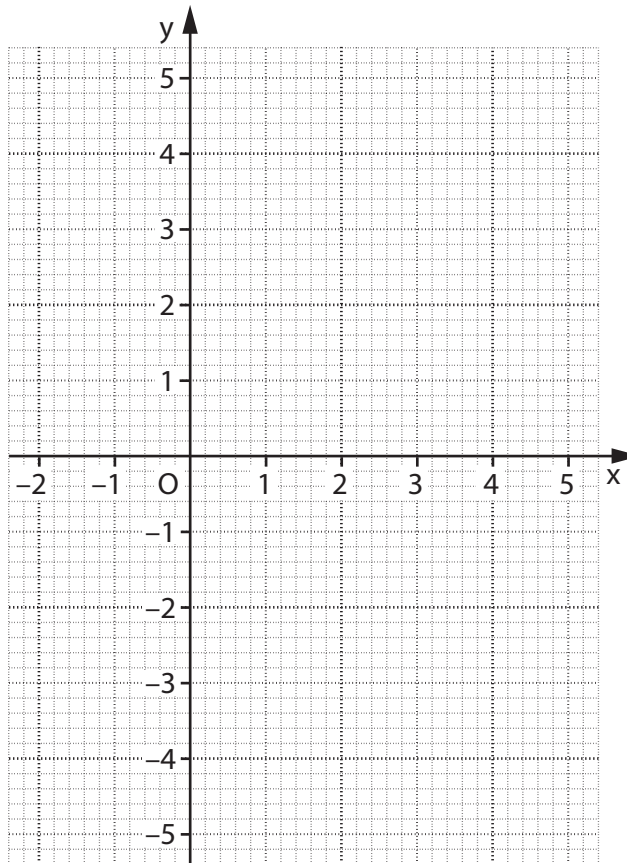
TURN OVER FOR QUESTION 11

11 (a) Solve this equation.

$$3(2x - 5) = 9$$

(a)[3]

(b) On the grid, draw the line $y = 2x - 1$.



[3]

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