MATHEMATICS B (MEI)   **1968/2314B**
PAPER 2 SECTION B
FOUNDATION TIER

Monday   **12 JUNE 2006**   Morning   1 hour

	Candidate Name	Centre Number	Candidate Number

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.
*   Unless otherwise instructed in the question, take π to be 3.142 or use the π button on your calculator.
*   The total number of marks for this section is 50.
*   Section B starts with question 14.

FOR EXAMINER'S USE	
Section B	

This question paper consists of 15 printed pages and 1 blank page.

Formula Sheet: Foundation Tier

Area of trapezium $= \frac{1}{2}(a+b)h$
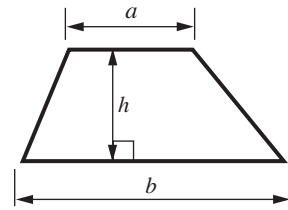
14 Talisha designed this logo.
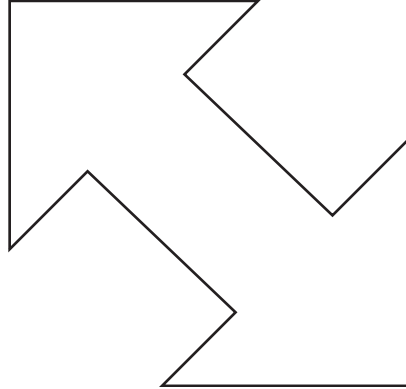
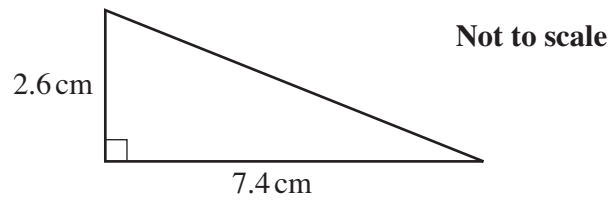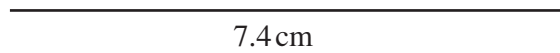Draw all the lines of symmetry on the logo. [2]

[Turn over

15 Here is a sketch of a right angled triangle.

2.6 cm

7.4 cm

Not to scale

Complete this accurate drawing of the triangle.
One side has been drawn for you.

7.4 cm

[2]

16 David and Rachel are preparing for a party.

(a) They buy some fillings to make sandwiches.

(i) Cheese costs £6.30 for a kilogram.
David buys 1.5 kg of cheese.

How much does David pay for the cheese?

(a)(i) £...............................[1]

(ii) Ham costs £7.88 for a kilogram.
Rachel buys 0.7 kg of ham.

How much does Rachel pay for the ham?
Give your answer to the nearest penny.
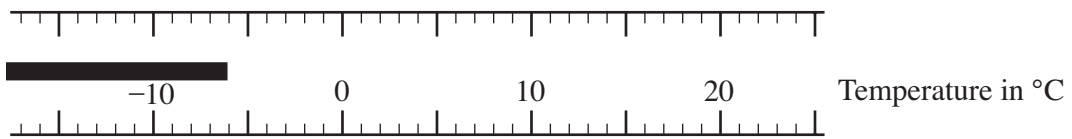
(ii) £ ....[3]

(b) They have £8 to spend on drinks.
Cans of drink cost 45 pence each.

What is the largest number of cans they can buy?

(b) ....[2]

[Turn over

17 **(a)** This diagram shows part of a thermometer.

Write down the temperature shown on the thermometer.

(a) ....°C [1]

(b) The temperatures in Leeds at midday during a week in January are shown below.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
–3°C	–2°C	4°C	6°C	0°C	–5°C	–1°C

Which was the coldest day?

(b) ....[1]

(c) This diagram shows part of a measuring tape.
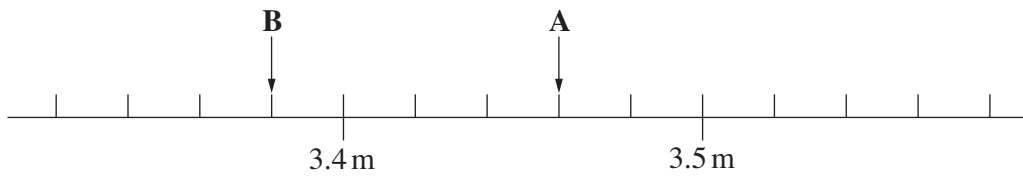
(i) What length does arrow **A** point to?

(c)(i) ....m [1]

(ii) What length does arrow **B** point to?

(ii) ....m [1]

18 Gurpal drew these triangles on a square grid.
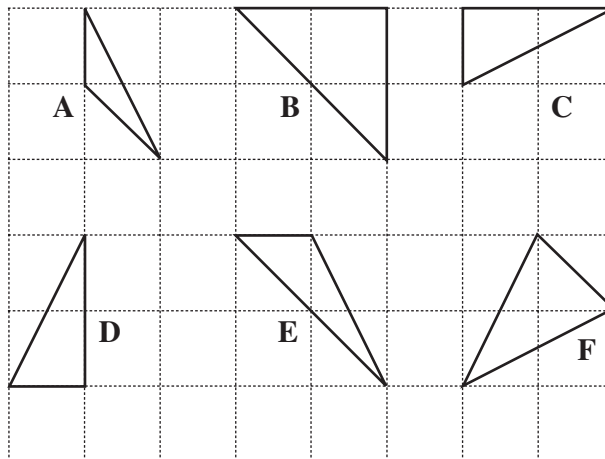
(a) Which two triangles are isosceles?

(a) .... and ....[1]

(b) Which two triangles have an obtuse angle?

(b) .... and ....[1]

(c) Which two triangles are congruent?

(c) .... and ....[1]

19 Lawrence is drawing a kite.
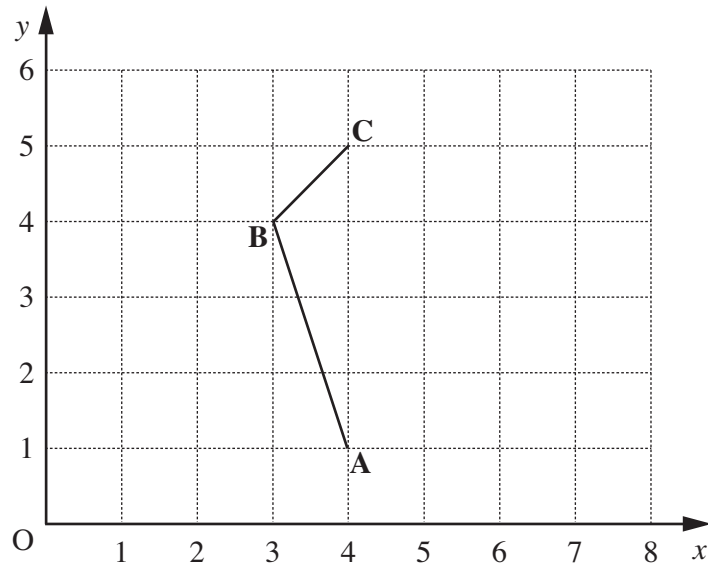
He draws three corners A, B and C. He will complete the kite with corner D.

(a) Write down the coordinates of D.

(a) (............... , ...) [2]

(b) Write down the coordinates of the midpoint of the line joining A to C.

(b) (............... , ...) [1]

[Turn over

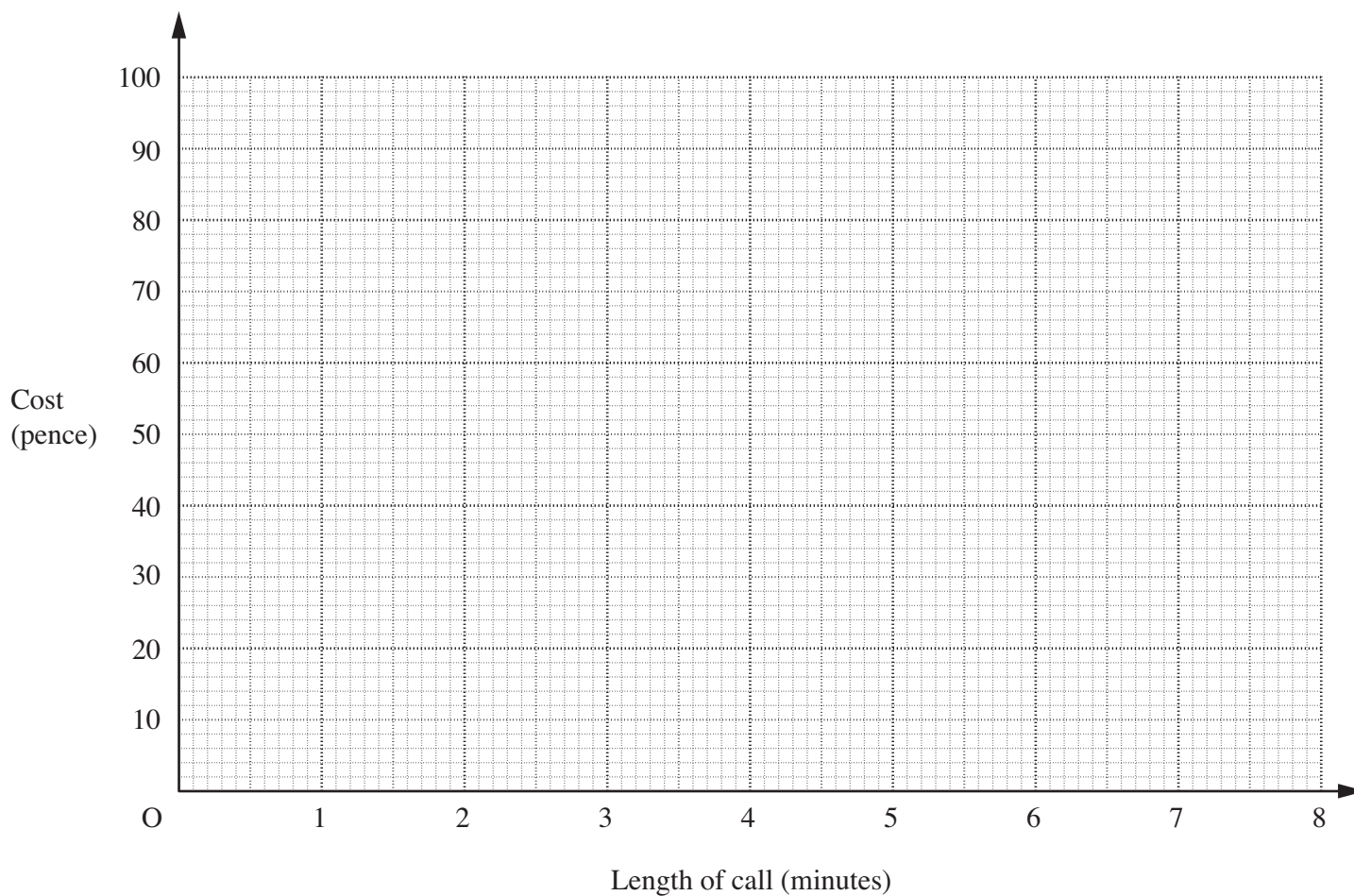20 **(a)** A mobile phone operator, *Mobophone*, charges 10 pence for each minute a phone is used.

    (i) Complete this table to show the cost of different length calls.

Length of call (minutes)	1	2	3	4	5	6	7	8
Cost (pence)	10			40				

[1]

    (ii) Use the table to draw a graph to show this information.

[2]

(b) (i) Another mobile phone company, *Genthree*, has these charges:
- 15 pence for each minute a phone is used for the **first three minutes**.
- 5 pence for each minute **after this**.

Complete this table to show the cost of different length calls.

Length of call (minutes)	1	2	3	4	5	6	7	8
Cost (pence)	15			50				

[2]

    (ii) On the same grid, draw a graph to show this information. [2]

**(c)** Which mobile phone company, *Mobophone* or *Genthree*, is cheaper for a 7 minute call, and by how much?

(c) .... is cheaper by ....p [1]

21 Sarah bought 5.4 kg of potatoes at 75p per kg.
She also bought some peaches at 39p each.
She gave the shop assistant a £10 note and received £1.27 change.

How many peaches did she buy?
Show your method clearly.

....[4]

[Turn over

22 **(a)** There are 30 students in class 10A.
They were each asked which was their favourite colour fruit gum.
The results are represented on this bar chart.
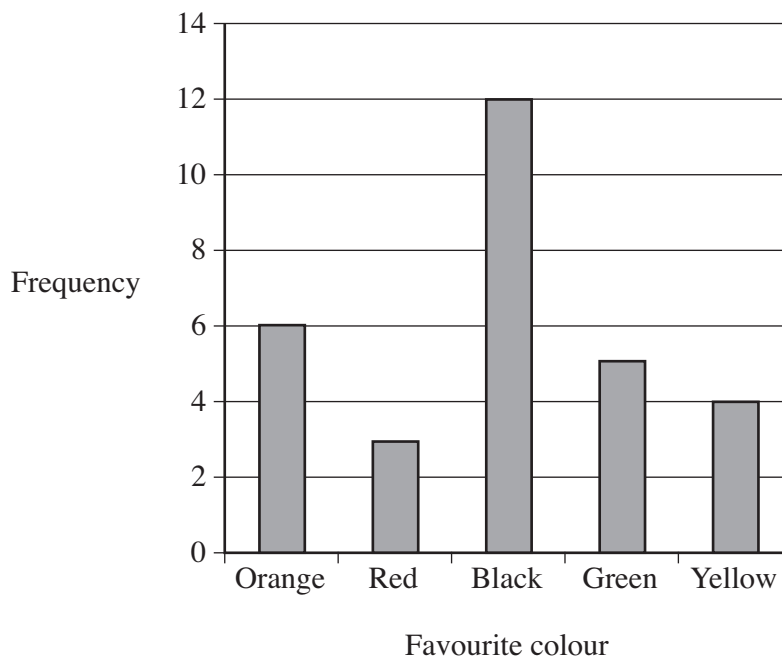
A student is chosen at random from this class.

What is the probability that their favourite colour fruit gum is

(i) black,

(a)(i) ....[2]

(ii) orange or green?

(ii) ....[2]

(b) Students in class 10T were asked the same question.
This table shows favourite colour fruit gums and their probabilities, for a student chosen at random from this class.

Colour	Probability
Orange	0.25
Red	0.15
Black	0.3
Green	0.2
Yellow	

   (i) Complete the table. [2]

   (ii) There are 20 students in class 10T.

     How many of them have red as their favourite colour fruit gum?

                                                              (b)(ii) ....[2]

[Turn over

14

23 Calculate.

(a) $3.7^2 + 4.4$

(a) ....[1]

(b) $79.6 - 31.4 \times 2.3$

(b) ....[1]

(c) $\dfrac{3.9}{7.8 - 2.6}$

(c) ....[1]

24 (a) Multiply out.

$$3(x + 5)$$

(a) ....[1]

(b) Factorise.

$$4p + 10$$

(b) ....[1]

25 Mr Edwards is constructing a regular polygon.
He draws a circle.
He marks a point every 30°.
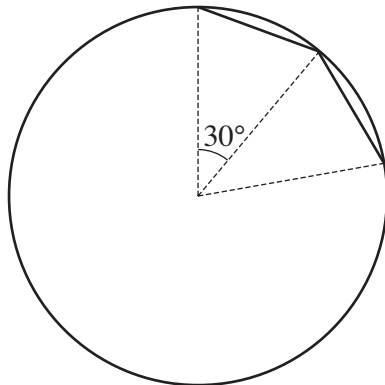
Not to scale

Mr Edwards joins the points on the circle to complete the regular polygon.

How many sides will the polygon have?

....[2]

26 A train fare was £74.50.
It has been increased by 12%.

Calculate the new fare.

£ ....[3]

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