Write your name here

Surname	Other names

Edexcel GCSE

Centre Number	Candidate Number

Mathematics B

Unit 2: Number, Algebra, Geometry 1 (Non-Calculator)

Foundation Tier

Monday 4 March 2013 – Morning
Time: 1 hour 15 minutes

Paper Reference
5MB2F/01

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser. Tracing paper may be used.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- **Calculators must not be used.**

Information

- The total mark for this paper is 60
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed.

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶

P42052A

6/6/8/3/

P 4 2 0 5 2 A 0 1 2 0

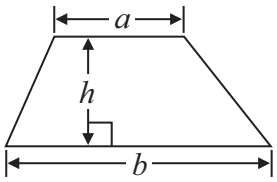
PEARSON

GCSE Mathematics 2MB01

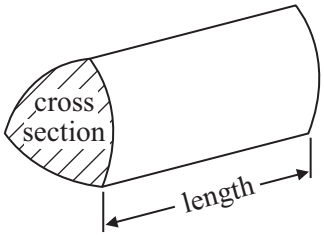
Formulae: Foundation Tier

You must not write on this formulae page.
Anything you write on this formulae page will gain NO credit.

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



Volume of prism = area of cross section × length



Answer ALL questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

You must NOT use a calculator.

1 (a) Work out $27 + 38$

.....

(1)

(b) Work out $202 - 75$

.....

(1)

(c) Work out $2 \times 3 \times 5$

.....

(1)

(Total for Question 1 is 3 marks)

2 Sam has £480

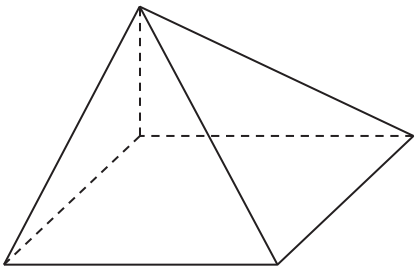
He spends $\frac{1}{4}$ of the £480

Work out how much money Sam has left.

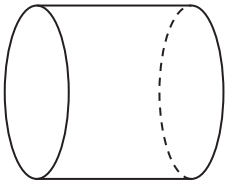
£ .....

(Total for Question 2 is 3 marks)

3 Here are two 3-D shapes.



Shape A



Shape B

(a) Write down the mathematical name of

(i) Shape A,

.....

(ii) Shape B.

.....

(2)

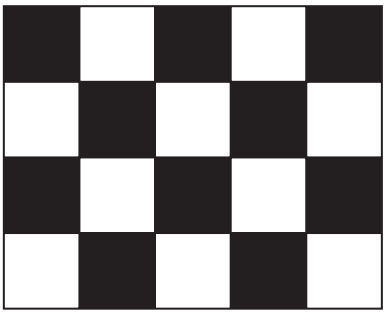
(b) Write down the number of edges that Shape A has.

.....

(1)

(Total for Question 3 is 3 marks)

4 Jim has a board made of squares.



Jim puts 50p on every black square.

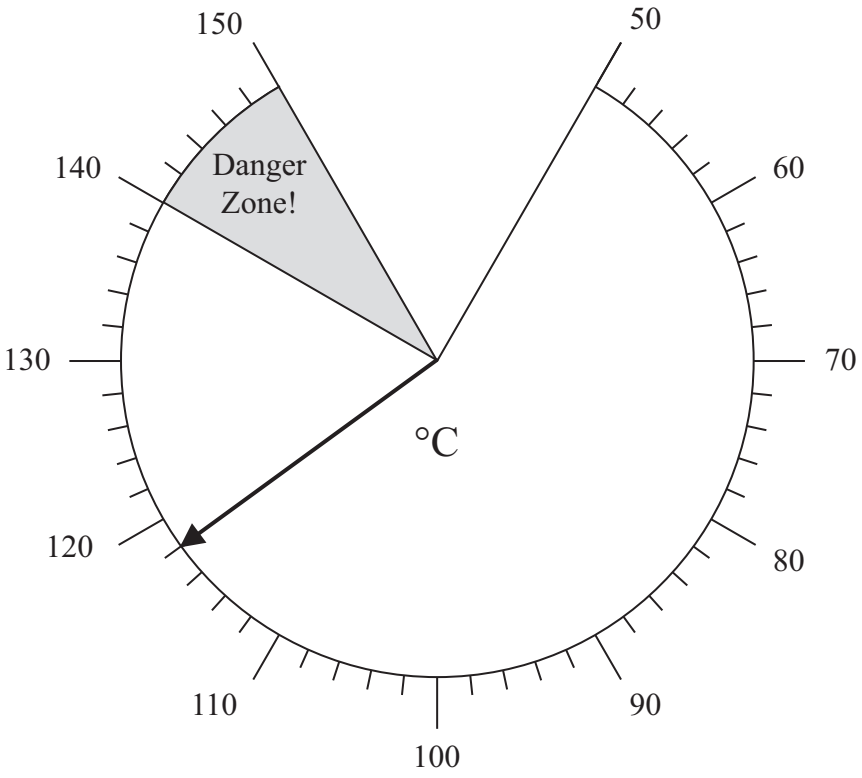
Sophie puts 20p on every white square.

Work out the total amount of money on the board.

.....

(Total for Question 4 is 3 marks)

5



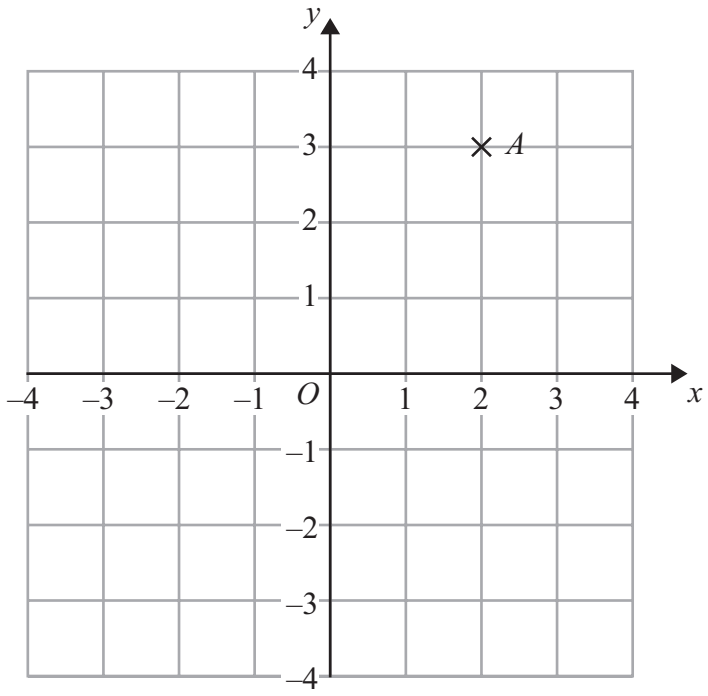
The diagram shows a temperature gauge.

How many degrees does the temperature have to rise to get to the danger zone?

..... °C

(Total for Question 5 is 2 marks)

6 Here is a grid.



(a) Write down the coordinates of the point A.

(..... , ...)

(1)

(b) On the grid, mark with a cross (×), the point with coordinates (−3, 3).
Label this point B.

(1)

(Total for Question 6 is 2 marks)

---

7 (a) Write 0.41 as a fraction.

.....

(1)

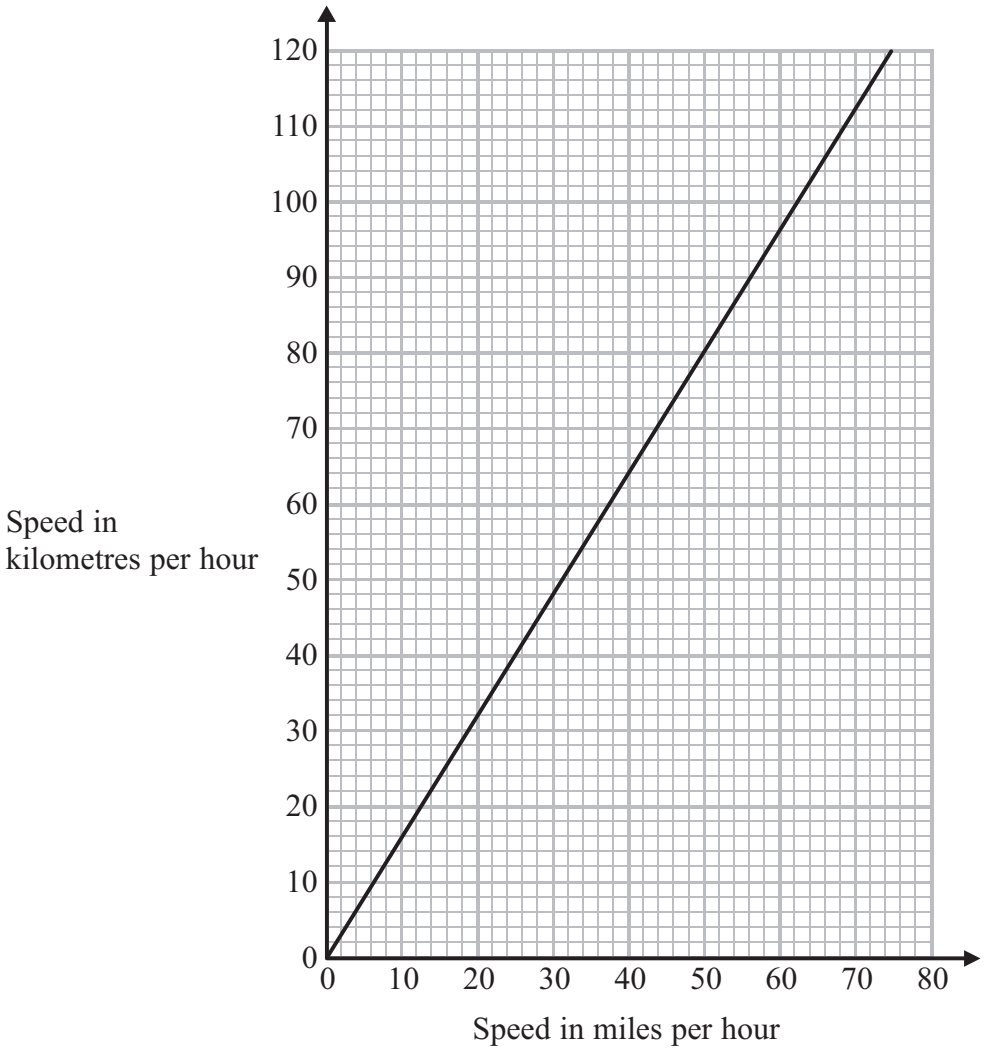
(b) Work out 20% of 80

.....

(2)

(Total for Question 7 is 3 marks)

8 Here is a conversion graph.



You can use the graph to change between speed in miles per hour and speed in kilometres per hour.

(a) Change 30 miles per hour to kilometres per hour.

..... kilometres per hour
(1)

(b) Change 72 kilometres per hour to miles per hour.

..... miles per hour
(1)

Jack is in France.
He has to drive 180 miles to the ferry.
He has 3 hours to get to the ferry.

In France, Jack must not drive at a speed greater than 90 kilometres per hour.

*(c) Can Jack drive to the ferry in 3 hours?
You must show all your working.

(3)

(Total for Question 8 is 5 marks)

9 (a) Work out the value of $5 \times 2 + 8$

.....

(1)

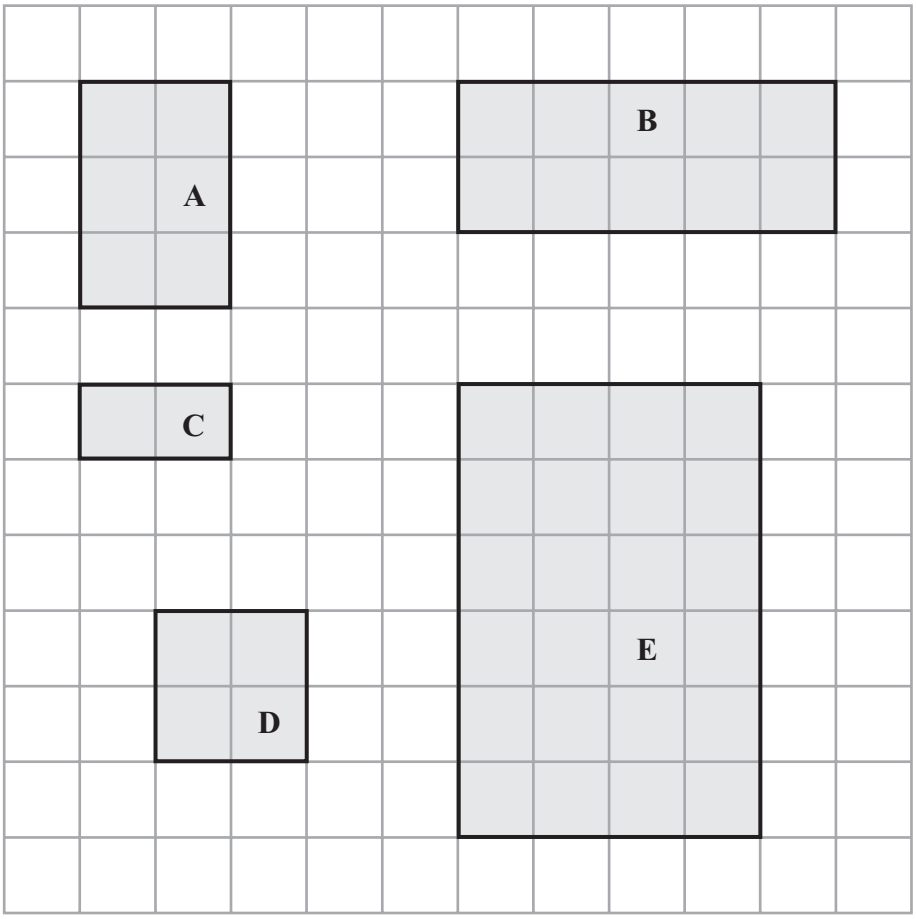
(b) Work out the value of $(13 - 6) \times 2$

.....

(1)

(Total for Question 9 is 2 marks)

10 Here are some shaded shapes drawn on a centimetre grid.



(a) Write down the letters of the two similar shapes.

..... and .....

(1)

(b) Find the perimeter of shape **C**.

.....

(2)

(Total for Question 10 is 3 marks)

11 Here is a rectangle.

Draw all the lines of symmetry on this rectangle.

(Total for Question 11 is 2 marks)

12 (a) Simplify $y + y + y + y + y$

.....

(1)

(b) Simplify $5 \times 2k$

.....

(1)

(Total for Question 12 is 2 marks)

13 Mr Pole is organising a school trip to London.

The table shows the number of students going on the trip.

Year	Number of Students
7	112
8	65
9	38
10	0
11	0

Mr Pole needs to book coaches for the trip.

Each coach has seats for 50 passengers.

There are going to be 3 adult helpers on each coach.

Work out the least number of coaches needed.

.....

(Total for Question 13 is 3 marks)

***14**

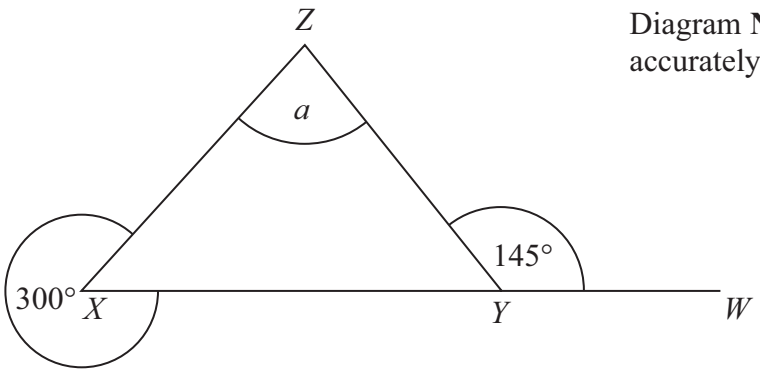


Diagram **NOT** accurately drawn

XYW is a straight line.

Work out the size of the angle marked *a*.
You must give reasons for your answer.

(Total for Question 14 is 4 marks)

***15** Orange squash is used to make orange drink.
Jill is going to make orange drink for 50 people.

She is going to make 2 full glasses of orange drink for each person.
She needs 250 millilitres of orange drink for each glass.

Here are the instructions for making orange drink.

Mix 1 part of orange squash with 4 parts of water.

A one litre bottle of orange squash costs £2

Work out the total cost of the bottles of orange squash Jill needs to buy.

(1 litre = 1000 millilitres)

(Total for Question 15 is 5 marks)

16 Here is a list of the names of five types of quadrilateral.

trapezium parallelogram square rhombus rectangle

(a) From the list, write down the names of two quadrilaterals which must have all four sides the same length.

..... and .....

(1)

trapezium parallelogram square rhombus rectangle

(b) From the list, write down the name of the quadrilateral that has only one pair of parallel sides.

.....

(1)

trapezium parallelogram square rhombus rectangle

For one of these quadrilaterals,

the corners are not right angles,
the quadrilateral has rotational symmetry of order 2
and the diagonals cross at right angles.

(c) Write down the name of this quadrilateral.

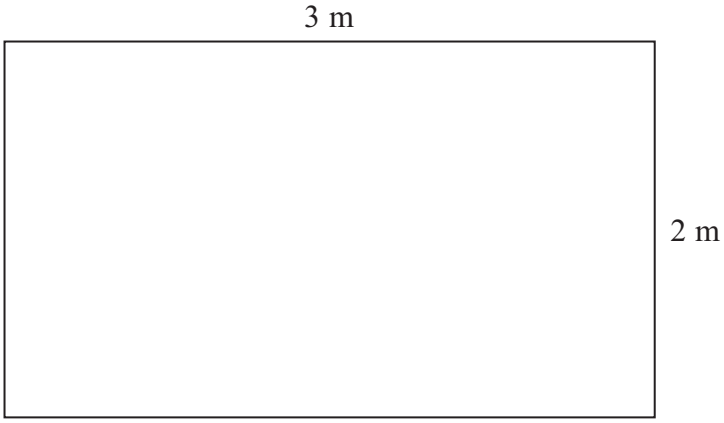
.....

(1)

(Total for Question 16 is 3 marks)

17 Here is a diagram of part of a wall in Sarah's house.

Diagram **NOT** accurately drawn



Sarah is going to cover this part of the wall with square tiles.
The square tiles have sides of 20 cm.

Work out the number of tiles Sarah needs.

..... tiles

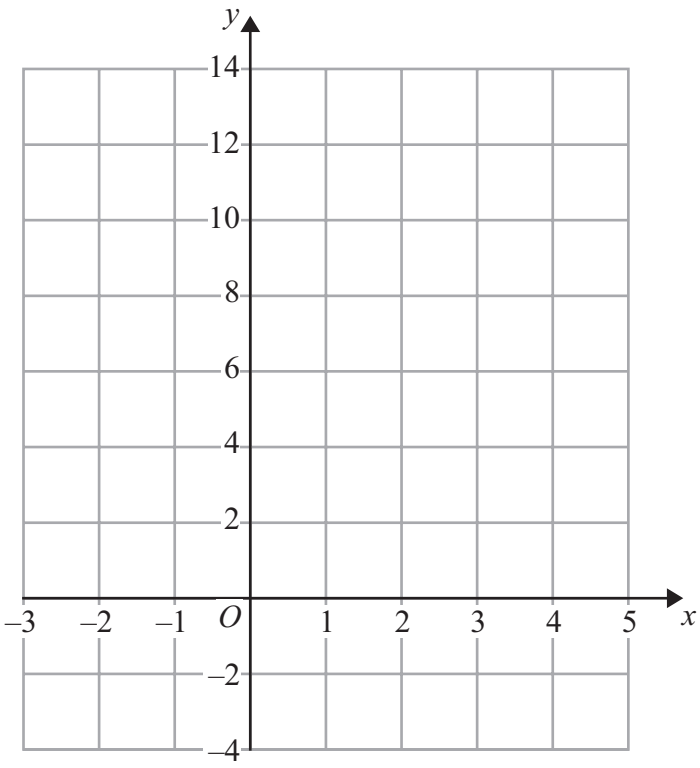
(Total for Question 17 is 3 marks)

18 (a) Complete the table of values for $y = 2x + 2$

x	−2	−1	0	1	2	3	4
y	−2				6		

(2)

(b) On the grid, draw the graph of $y = 2x + 2$



(2)

(Total for Question 18 is 4 marks)

Turn over for Questions 19 and 20

19 Work out $\frac{3}{8} + \frac{1}{2}$

.....

(Total for Question 19 is 2 marks)

20 (a) Factorise $3t + 12$

.....

(1)

(b) Expand and simplify $7(2x + 1) + 6(x + 3)$

.....

(2)

(Total for Question 20 is 3 marks)

TOTAL FOR PAPER IS 60 MARKS

BLANK PAGE

BLANK PAGE