Write your name here

Surname	Other names

Pearson Edexcel GCSE

Centre Number | | | | | |

Candidate Number | | | | |

Mathematics B

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

Foundation Tier

Friday 6 November 2015 – 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 ▶

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P 4 5 9 0 6 A 0 1 1 6

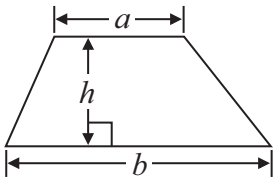
PEARSON

GCSE Mathematics 2MB01

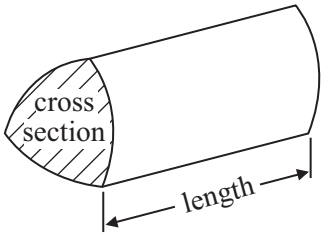
Formulae: Foundation Tier

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



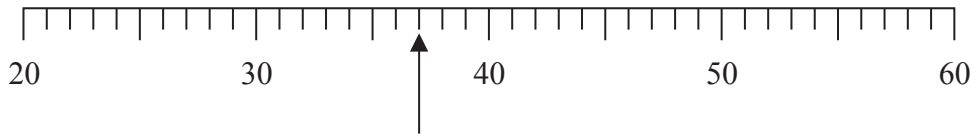
Answer ALL questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

You must NOT use a calculator.

1 (a) Write down the number marked with the arrow.



.....

(1)

(b) Write the number **twenty three thousand and seventy nine** in figures.

.....

(1)

(c) Write down the value of the **8** in 3876

.....

(1)

(Total for Question 1 is 3 marks)

---

2 Ruth is 1.23 m tall.

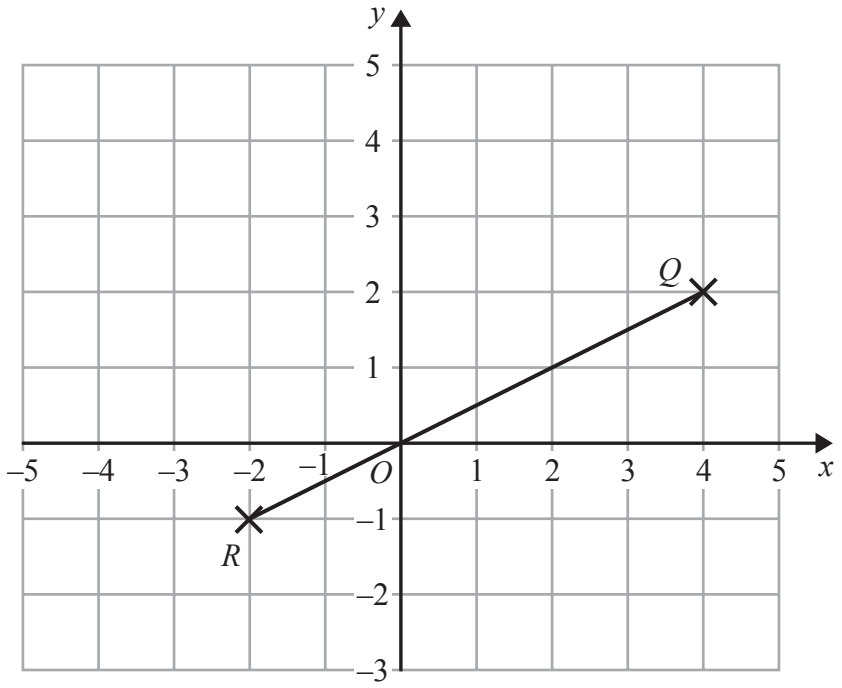
Lee is 6 cm shorter than Ruth.

How tall is Lee?

.....

(Total for Question 2 is 2 marks)

3



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

(..... , ...)

(1)

M is the midpoint of the line RQ.

(b) On the grid, mark with a cross (X) the point M.

(1)

(Total for Question 3 is 2 marks)

---

4 There are 120 people at a party.

$\frac{1}{3}$ of the people leave the party.

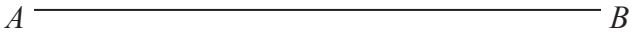
Work out the number of people still at the party.

.....

(Total for Question 4 is 3 marks)

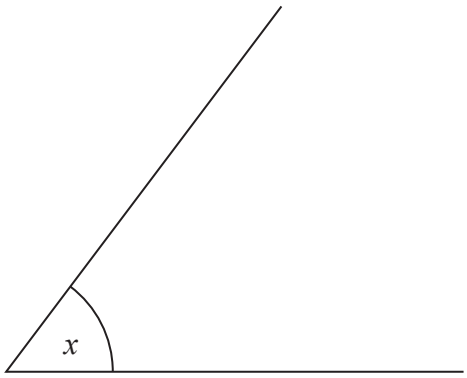
---

5 (a) Measure the length of the line AB.



.....

(2)



(b) (i) Write down the special name for the angle marked x.

.....

(ii) Measure the size of the angle marked x.

..... °

(2)

(Total for Question 5 is 4 marks)

6 Jack and Lewis are in a singing competition.
5 judges each give Jack and Lewis points.

These points are shown below.

Jack	4	6	2	4	6

Lewis	2	6	7	0	4

Jack gets more points than Lewis.

Work out how many more points.

.....

(Total for Question 6 is 2 marks)

7 Here is a quadrilateral.

(a) Write down the mathematical name for this quadrilateral.

.....

(1)

(b) Write down the order of rotational symmetry of this quadrilateral.

.....

(1)

(Total for Question 7 is 2 marks)

***8** Ahmed is going to catch the bus that leaves at 8.16 am.
This bus takes 25 minutes to get to the bus stop in town.
It will then take Ahmed 12 minutes to walk from the bus stop in town to the train station.

Work out if Ahmed will be able to catch the 8.50 am train.
Show how you get your answer.

(Total for Question 8 is 3 marks)

9 (a) Write these numbers in order of size.
Start with the smallest number.

0.401 0.46 0.37 0.439

.....

(1)

(b) Write these numbers in order of size.
Start with the smallest number.

75% $\frac{7}{8}$ 0.25 $\frac{1}{2}$ $\frac{2}{3}$

.....

(2)

(Total for Question 9 is 3 marks)

10 Ashley takes his 2 children to the cinema.
He has £30 to spend.

Ticket prices	
adult	£8.20
child	£6.10

Drink prices	
large	£3.45
medium	£3.15
small	£2.70

Ashley buys 1 adult ticket and 2 child tickets.
He buys 3 drinks with the money he has left.

The 3 drinks are all the same size.
The size of each drink is as big as possible.

What is the price of each drink?
You must show all your working.

£ .....

(Total for Question 10 is 4 marks)

11 Work out

(i) $3 + 4 \times 2$

.....

(ii) $(13 - 3) \times 5$

.....

(iii) $5^2 + 6$

.....

(Total for Question 11 is 3 marks)

12 $a = 2$
$b = 3$

Work out the value of $6a + 5b$

.....

(Total for Question 12 is 2 marks)

13 (a) Simplify $r + r + r + 2r$

.....

(1)

(b) Simplify $7 \times 2t$

.....

(1)

(c) Simplify $6ab - 4ab$

.....

(1)

(Total for Question 13 is 3 marks)

14 Here is an equilateral triangle.

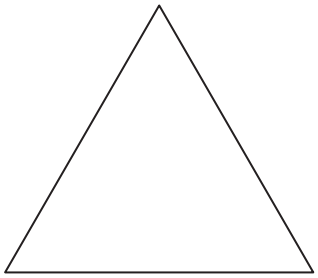
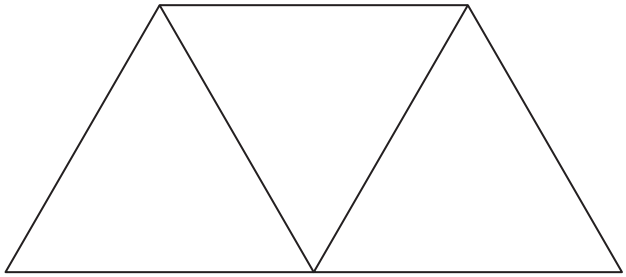


Diagram **NOT** accurately drawn

The equilateral triangle has a perimeter of 24 cm.

Three of these equilateral triangles are used to make this trapezium.



Work out the perimeter of the trapezium.

..... cm

(Total for Question 14 is 3 marks)

15 Liz's age is a square number.
Howard's age is a cube number.
Howard is 2 years older than Liz.

How old are Liz and Howard?

Liz .....

Howard .....

(Total for Question 15 is 2 marks)

***16** This shape is made from an equilateral triangle and 3 identical isosceles triangles.

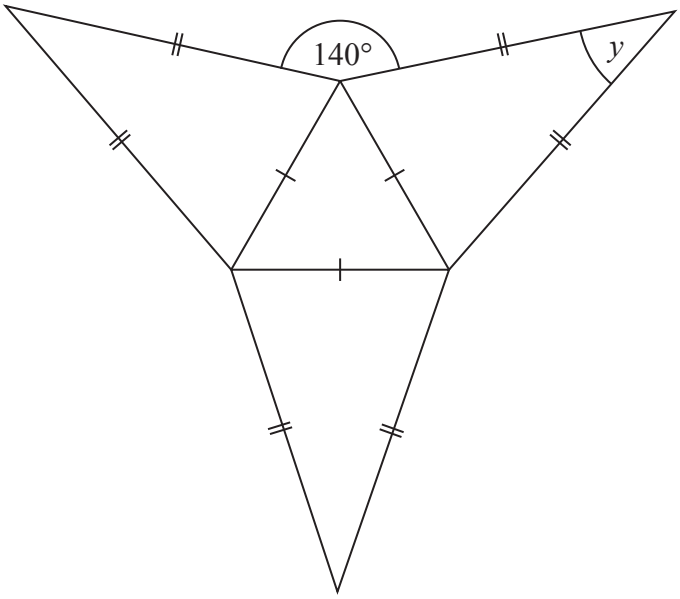


Diagram **NOT** accurately drawn

Work out the size of the angle marked *y*.
Give reasons for your answer.

(Total for Question 16 is 4 marks)

17 Bhavna drives 200 miles in 4 hours.

Work out her average speed.

..... mph

(Total for Question 17 is 2 marks)

18 Andy is going to cover a wall with tiles.

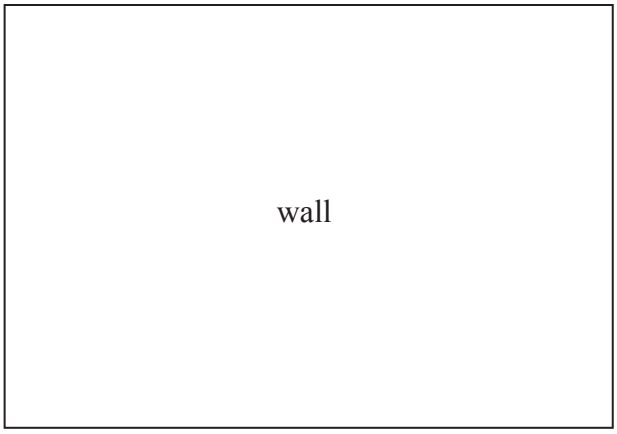
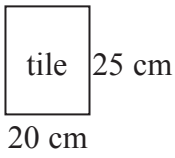


Diagram **NOT** accurately drawn



The wall is in the shape of a rectangle.
The wall is 3 m wide and 2.5 m high.
The tiles are rectangles 20 cm wide and 25 cm high.

The tiles are sold in boxes.
There are 20 tiles in each box.
Each box of tiles costs £8.50

Work out the total cost of the boxes of tiles Andy needs to buy.
You must show all your working.

£ .....

(Total for Question 18 is 5 marks)

***19** The nth term of sequence A is $3n - 2$
The nth term of sequence B is $10 - 2n$

Sally says there is only one number that is in both sequence A and sequence B.

Is Sally right?
You must explain your answer.

(Total for Question 19 is 2 marks)

20 Tom and Amy set the alarms on their phones to sound at 6.45 am.

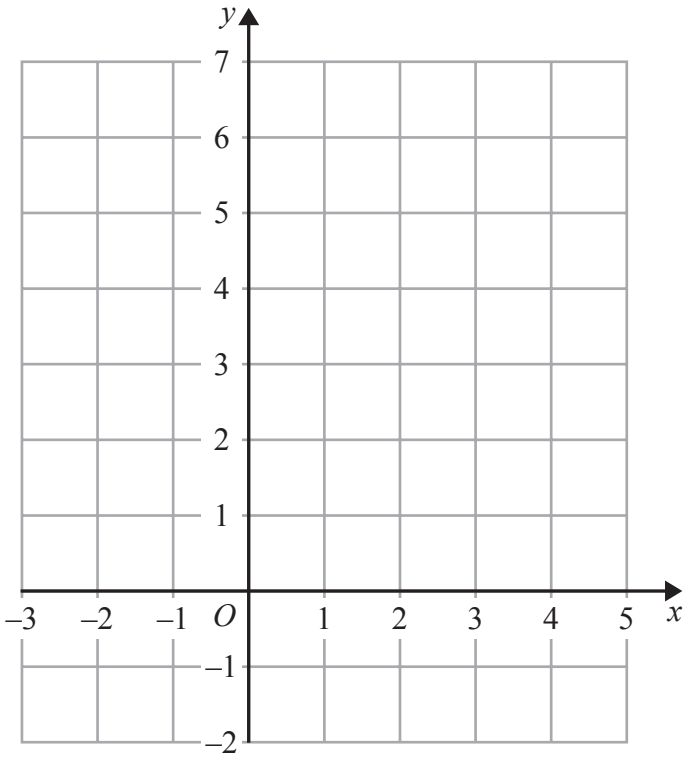
Both alarms sound together at 6.45 am.
Tom's alarm then sounds every 9 minutes.
Amy's alarm then sounds every 12 minutes.

At what time will both alarms next sound together?

.....

(Total for Question 20 is 3 marks)

21 On the grid, draw the graph of $y = \frac{1}{2}x + 3$ for values of x from –2 to 4



(Total for Question 21 is 3 marks)

TOTAL FOR PAPER IS 60 MARKS

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