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 7 November 2014 – 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 ▶

P44590A

©2014 Pearson Education Ltd.

6/7/6/

P 4 4 5 9 0 A 0 1 1 6

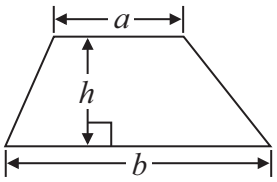
PEARSON

GCSE Mathematics 2MB01

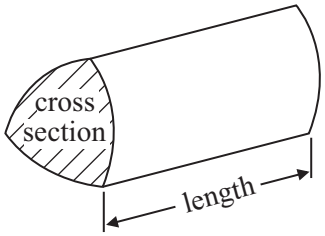
Formulae: Foundation Tier

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 these numbers in order of size.
Start with the smallest number.

3007 4435 399 4011 3333

.....

(1)

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

3.7 5.62 0.7 14.3

.....

(1)

(c) Write $\frac{9}{10}$ as a decimal.

.....

(1)

(d) Write $\frac{11}{8}$ as a mixed number.

.....

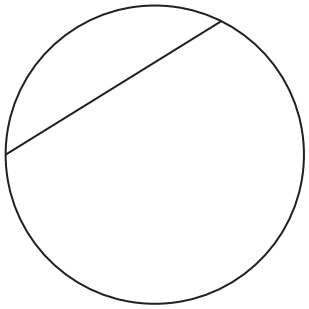
(1)

(Total for Question 1 is 4 marks)

2 (a) In the space below, draw a sketch of a rectangle.

(1)

(b)

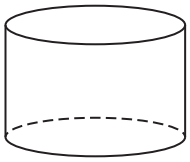


Write down the mathematical name for the straight line inside this circle.

.....

(1)

(c) Here is a solid shape.



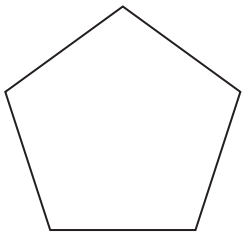
Write down the mathematical name for this solid shape.

.....

(1)

(Total for Question 2 is 3 marks)

3 Here is a regular pentagon.



A regular pentagon has rotational symmetry.

(a) Write down the order of rotational symmetry.

.....

(1)

(b) Draw a line of symmetry on this pentagon.

(1)

(Total for Question 3 is 2 marks)

---

4 A shop sells computers.

The table shows the number of laptops and the number of tablets sold in June, in July and in August.

	June	**July**	**August**
Laptops	38	55	41
Tablets	54	43	65

The shop sold more tablets than laptops.

How many more tablets?

.....

(Total for Question 4 is 3 marks)

---

5 Here is a list of names of some quadrilaterals.

square rectangle rhombus parallelogram trapezium

(a) Write down the names of the quadrilaterals that **must** have a right angle at each vertex.

.....

(1)

(b) Write down the names of the quadrilaterals that **must** have four sides the same length.

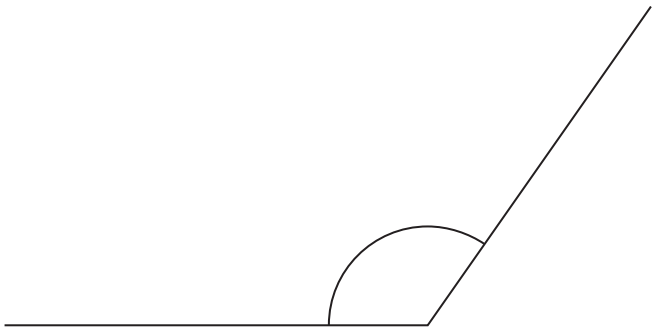
.....

(1)

(Total for Question 5 is 2 marks)

6 An angle is marked below.

(i) What type of angle is it?



.....

(ii) Measure the size of the angle.

..... °

(Total for Question 6 is 2 marks)

7 The diagram shows five towns.
It also shows the time it takes to drive between the towns.

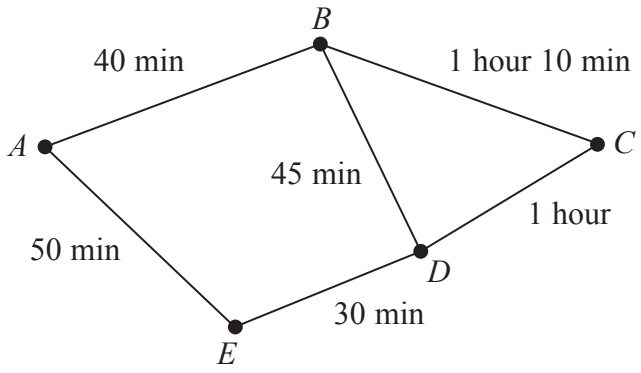


Diagram **NOT** accurately drawn

Sue drives a delivery van.

She will start at A, and drive from A to B
then from B to C
then from C to D
then from D to E
and from E back to A.

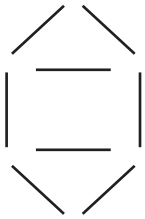
She will stop for 5 minutes in each town to make the delivery.
There is no delivery at A.
She wants to be back at A by 4 pm.

What is the latest time Sue can start from A to make the deliveries then drive back to A by 4 pm?

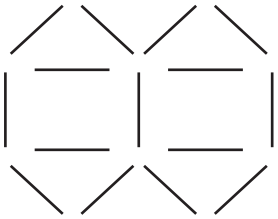
.....

(Total for Question 7 is 4 marks)

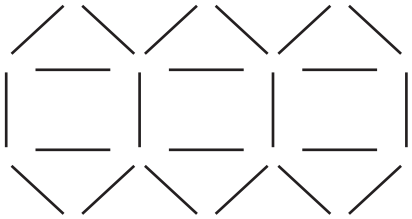
8 Here is a sequence of patterns made from sticks.



pattern number 1



pattern number 2



pattern number 3

(a) In the space below, draw pattern number 4

(1)

(b) How many sticks are needed for pattern number 10?

.....

(2)

(Total for Question 8 is 3 marks)

9 (a) Simplify $d + d + d + d$

.....

(1)

(b) Simplify $3 \times e \times f$

.....

(1)

(c) Simplify $2x + 3y + 3x - y$

.....

(2)

(Total for Question 9 is 4 marks)

10

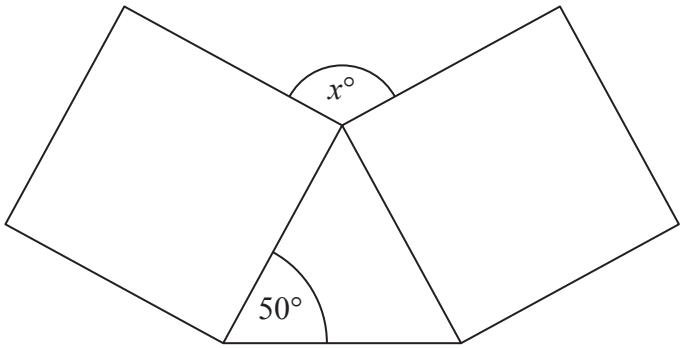


Diagram **NOT** accurately drawn

The diagram shows two identical squares and a triangle.

Find the size of the angle marked $x°$.

.....°

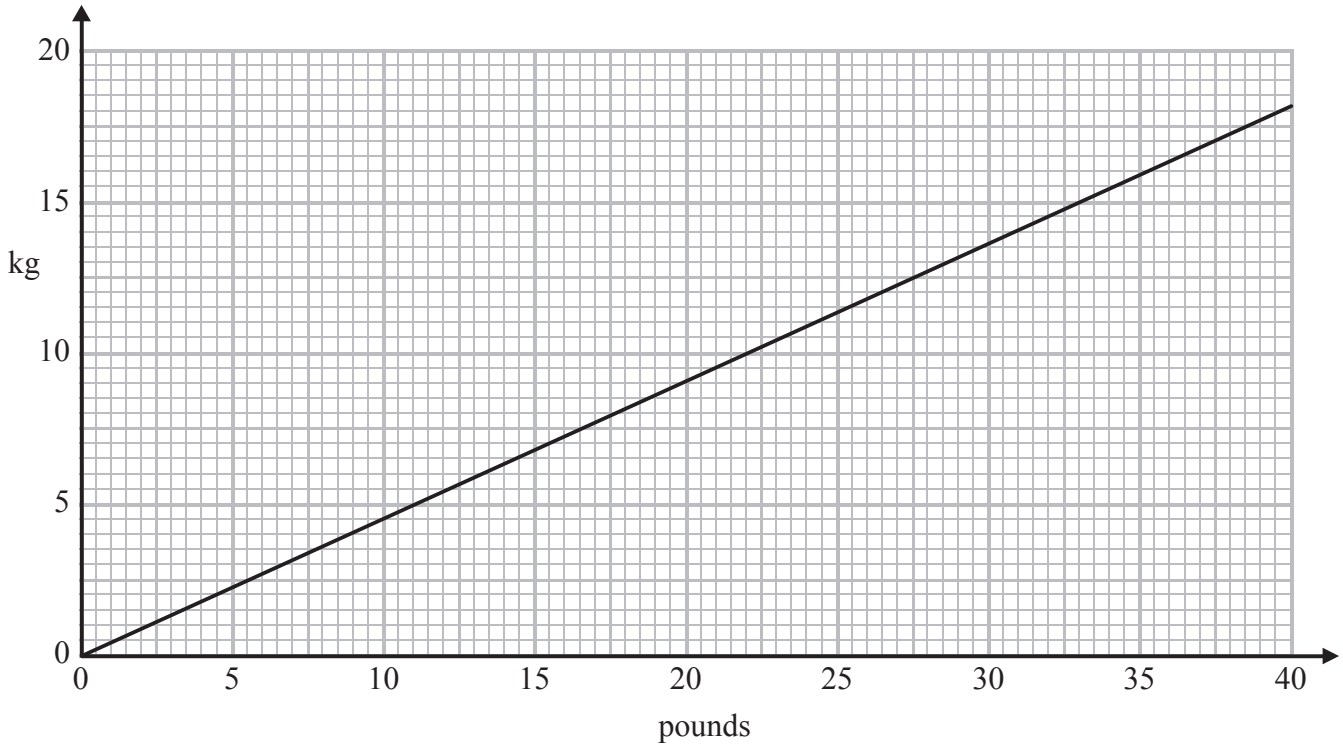
(Total for Question 10 is 4 marks)

11 Work out 65% of 300

.....

(Total for Question 11 is 2 marks)

12 This graph can be used to change between pounds and kg.



(a) Change 16 kg to pounds.

..... pounds

(1)

(b) Change 15 pounds to kg.

..... kg

(1)

Bill has to put 4 boxes in his van.
The weights of the boxes are

360 kg 300 kg 280 kg 340 kg

The van can carry a maximum weight of 2800 pounds.

*(c) Can Bill put all the boxes in the van?
You must show all your working.

(4)

(Total for Question 12 is 6 marks)

***13** Sandeep and her 3 friends are going shopping in town.

Sandeep finds out these costs of getting to town.

Tram	Taxi
£3.50 each	£2.20 booking fee plus £1.20 per mile

The journey to town is 10 miles.

Is it cheaper for all 4 people to go to town by tram or to go to town by taxi?
You must show your working.

(Total for Question 13 is 4 marks)

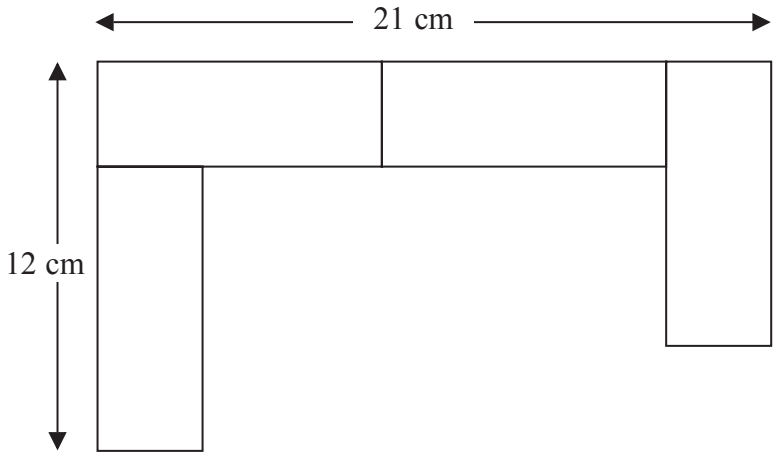
14 Work out $\frac{1}{3} + \frac{5}{9}$

.....

(Total for Question 14 is 2 marks)

15 A pattern is made using four identical rectangular tiles.

Diagram **NOT** accurately drawn

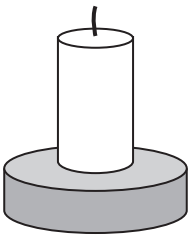


Find the total area of the pattern.

..... cm^2

(Total for Question 15 is 5 marks)

16 Caroline is making some table decorations.
Each decoration is made from a candle and a holder.



candle and holder

Caroline buys some candles and some holders each in packs.

There are 30 candles in a pack of candles.
There are 18 holders in a pack of holders.

Caroline buys exactly the same number of candles and holders.

(i) How many packs of candles and how many packs of holders does Caroline buy?

..... packs of candles

..... packs of holders

Caroline uses all her candles and all her holders.

(ii) How many table decorations does Caroline make?

..... table decorations

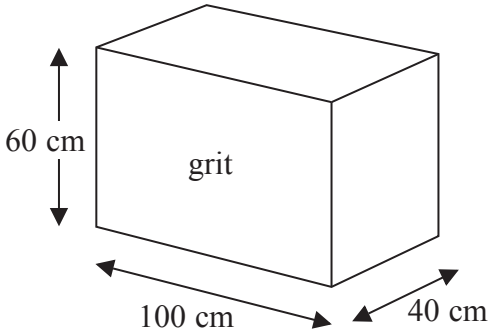
(Total for Question 16 is 5 marks)

***17** The diagram shows a box for winter grit.
The box is in the shape of a cuboid.
The box is empty.

Jon wants to fill the box with grit.
A bag of grit costs £2.50
There are 8000 cm^3 of grit in a bag.

Jon has £70 to spend on the grit.

Diagram **NOT** accurately drawn



Does Jon have enough money to buy all the grit he needs to fill the box completely?

(Total for Question 17 is 5 marks)

TOTAL FOR PAPER IS 60 MARKS

BLANK PAGE