Write your name here

Surname	Other names

Edexcel GCSE

Centre Number	Candidate Number

Mathematics A

Paper 1 (Non-Calculator)

Foundation Tier

Tuesday 11 June 2013 – Morning
Time: 1 hour 45 minutes

Paper Reference
1MA0/1F

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 100
- 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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6/5/5/

P 4 3 5 9 7 A 0 1 2 8

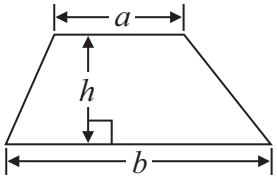
PEARSON

GCSE Mathematics 1MA0

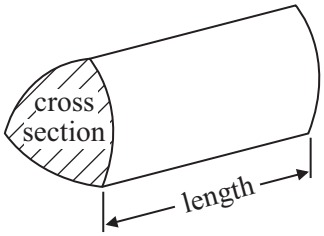
Formulae: Foundation Tier

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



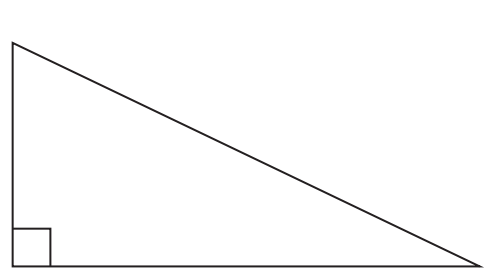
Answer ALL questions.

Write your answers in the spaces provided.

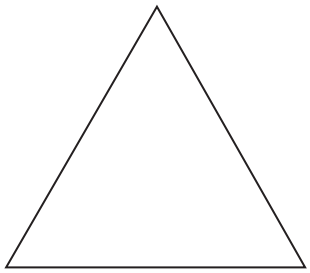
You must write down all stages in your working.

You must NOT use a calculator.

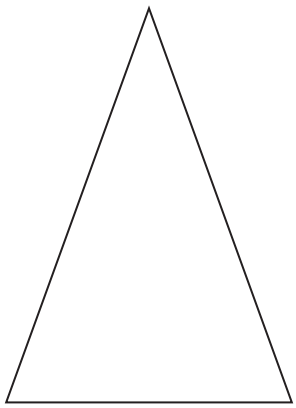
1 Here are four triangles.



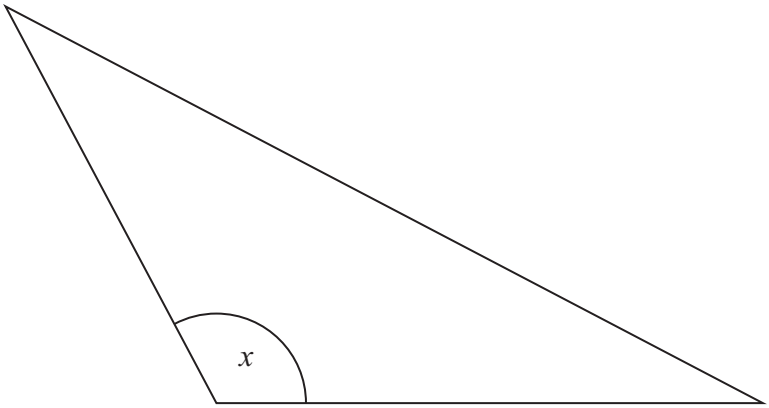
A



B



C



D

One of these triangles is an equilateral triangle.

(a) Write down the letter of the equilateral triangle.

.....

(1)

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

.....°

(1)

(c) Measure the length of the line EF.
Give your answer in centimetres.

E ——————————————————— F

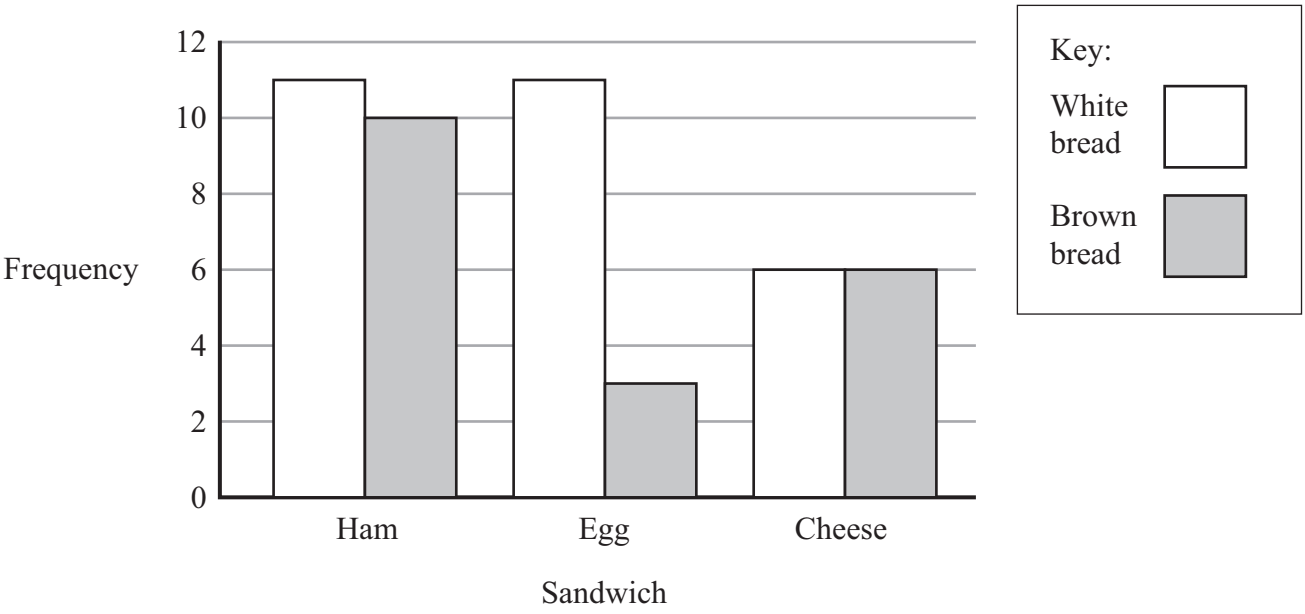
..... cm

(1)

(Total for Question 1 is 3 marks)

2 Ann works in a sandwich shop.

The dual bar chart shows information about the sandwiches sold.



(a) Write down the total number of cheese sandwiches sold.

.....

(1)

More white bread sandwiches were sold than brown bread sandwiches.

(b) Work out how many more white bread sandwiches.

.....

(2)

(Total for Question 2 is 3 marks)

3 The table shows some information about 6 caravans in a holiday park.

Caravan Name	Sleeps	Sea view	DVD player	Weekly hire price
Chestnut	8	No	No	£709
Seal	4	Yes	Yes	£579
Puffin	6	Yes	Yes	£629
Tern	5	Yes	No	£539
Heron	4	No	Yes	£519
Pearl	4	No	Yes	£449

(a) Write down the number of caravans that sleep 6 people or more than 6 people.

.....

(1)

(b) Write down the names of the caravans with a Sea view **and** a DVD player.

.....

(1)

Mike wants to hire a caravan that sleeps exactly 4 people.

(c) Work out the difference between the highest weekly hire price and the lowest weekly hire price he could pay.

£.....

(2)

Each caravan has a width of 12 feet.

(d) Use 1 foot = 30 centimetres to work out the width of a caravan.

Give your answer in metres.

..... metres

(3)

(Total for Question 3 is 7 marks)

4 At 7 am the temperature was –3 °C.
By noon the temperature was 11 °C higher.

(a) Write down the temperature at noon.

..... °C
(1)

At 9 pm the temperature was –5 °C.
By midnight the temperature had gone down by 7 °C.

(b) Write down the temperature at midnight.

..... °C
(1)

(Total for Question 4 is 2 marks)

5 There is enough space for 80 boxes of cornflakes in a stockroom.

On Monday there are 65 boxes of cornflakes in the stockroom.
On Tuesday 17 boxes of cornflakes are taken out of the stockroom.
On Wednesday 29 boxes of cornflakes are put into the stockroom.

Work out how many more boxes of cornflakes can now be put into the stockroom.

.....

(Total for Question 5 is 3 marks)

6 Here is part of a railway timetable.

New Street	10 13	10 30	10 33
Marston Green	10 26	↓	10 41
Birmingham International	10 29	10 39	10 45
Hampton-in-Arden	10 32	↓	10 48
Tile Hill	10 40	↓	10 55
Coventry	10 47	10 49	11 00

(a) Work out how long the 10 13 train takes to go from New Street to Coventry.

..... minutes

(1)

Harry is at Birmingham International.
He needs to be at Tile Hill by 11 00

(b) What time is the latest train from Birmingham International he can catch?

.....

(1)

(Total for Question 6 is 2 marks)

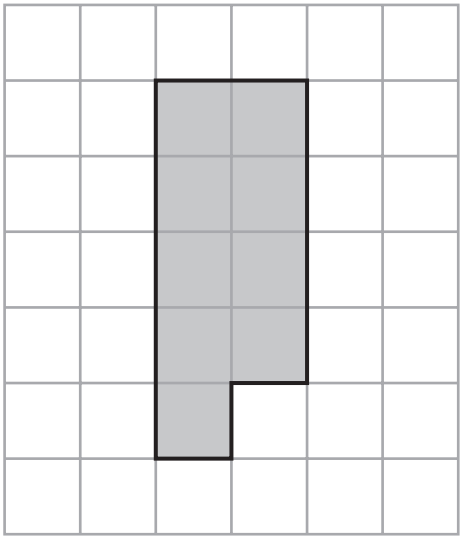
7 Jack is 1.78 m tall.
Amy is 5 cm taller than Jack.

How tall is Amy?

.....

(Total for Question 7 is 2 marks)

8 The shaded shape is drawn on a grid of centimetre squares.

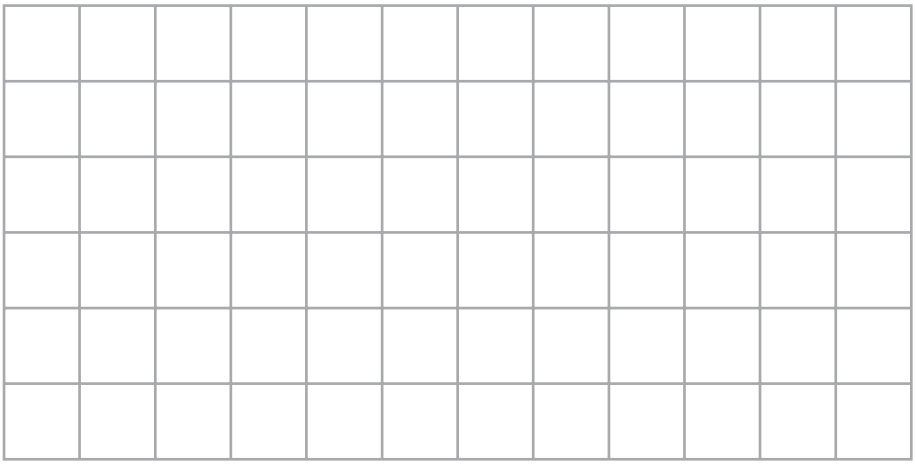


(a) Find the perimeter of the shaded shape.

.....

(2)

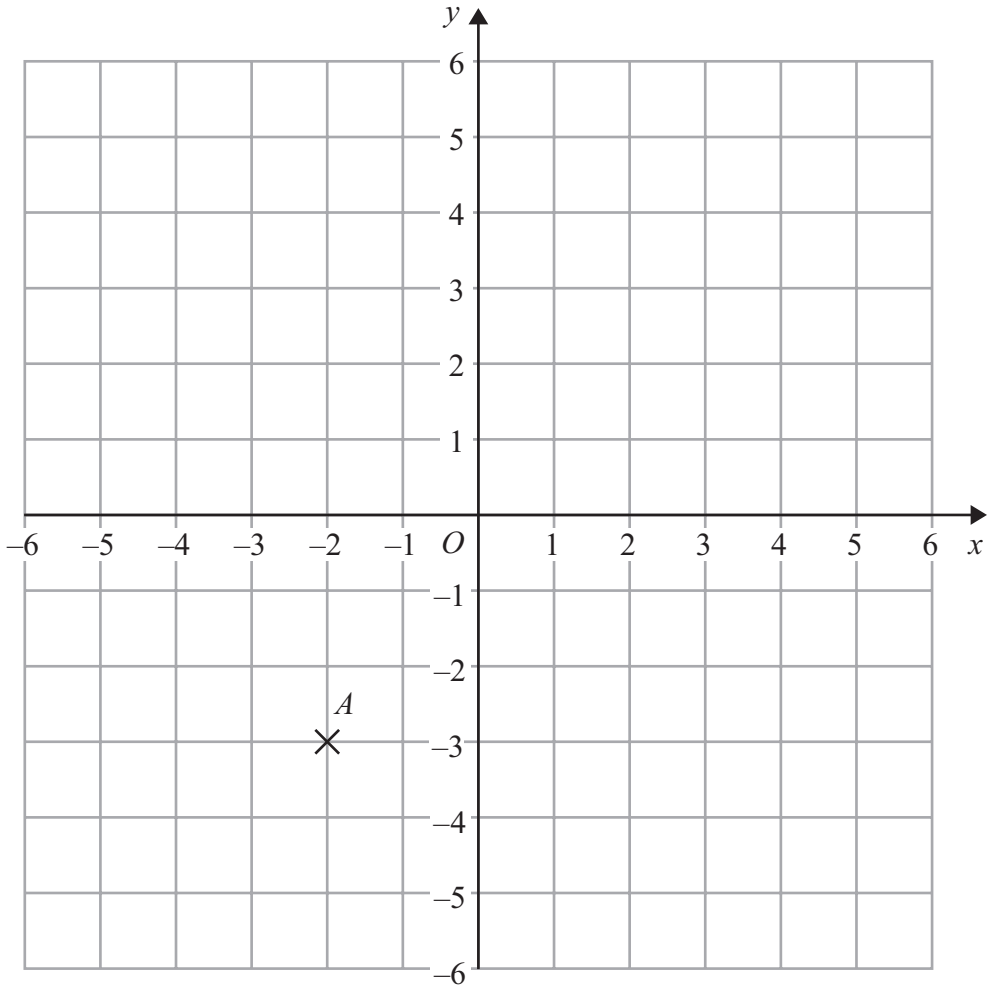
(b) On the grid below, draw a square with the same **area** as the shaded shape.



(1)

(Total for Question 8 is 3 marks)

9



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

(.....,.....)

(ii) On the grid, mark with a cross (×) the point with coordinates (5, 2). Label this point B.

(2)

(b) On the grid, draw the line with equation $y = 3$

(1)

(Total for Question 9 is 3 marks)

10 Fareeda has four types of fruit

bananas
apples
pears
oranges

Fareeda is going to choose 2 different types of fruit.

Write down all the possible combinations of fruit she can choose.

.....

.....

.....

.....

(Total for Question 10 is 2 marks)

***11** Here are the costs of pens in two shops.

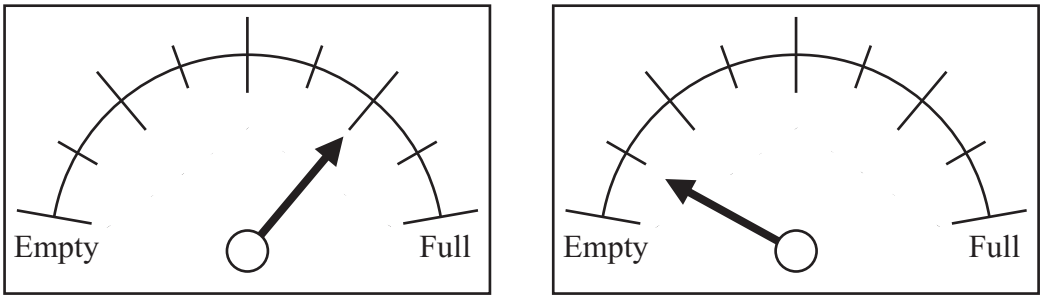
Shop A	**Shop B**
3 pens for £2	5 pens for £3

Mrs Evans wants to buy 30 pens for the cheapest possible cost.

Which shop should she buy the pens from?
You must show all your working.

(Total for Question 11 is 4 marks)

12 The diagram shows a car fuel gauge at the start of a journey and at the end of the journey.



Start **End**

There are 80 litres of fuel in the fuel tank when it is full.

(a) Work out how many litres of fuel the car used on this journey.

..... litres

(3)

On a different journey, the car went 180 kilometres.
The car went 15 kilometres for each litre of fuel used.

(b) How many litres of fuel did the car use?

..... litres

(2)

(Total for Question 12 is 5 marks)

***13** An ice cream van has this price list.

Price List	
Choc Ice	£1.25
Tub	£1.15
Cone	85p

Mitch only has these three coins.
He has no other money.



Mitch wants to buy a choc ice, a tub and 2 cones.

Has Mitch got enough money?
You must show your working.

(Total for Question 13 is 3 marks)

14 Here are the first five terms of a number sequence.

2 7 12 17 22

(a) (i) Write down the next term in the sequence.

.....

(ii) Explain how you worked out your answer.

.....

.....

(2)

(b) 45 is **not** a term in this number sequence.
Explain why.

.....

.....

(1)

(Total for Question 14 is 3 marks)

15 Here is a number machine.



Complete this table for the number machine.

Input	Output
0.5	.....
2	15
3	.....
.....	33

(Total for Question 15 is 3 marks)

16 (a) Work out $2 \times (8 - 3)$

.....

(1)

(b) Work out $3^2 + 4 \times 5$

.....

(2)

(c) Find the value of 5^3

.....

(1)

(d) Find the square root of 16

.....

(1)

(Total for Question 16 is 5 marks)

17 A ticket for a seat at a school play costs £2.95

There are 21 rows of seats.
There are 39 seats in each row.

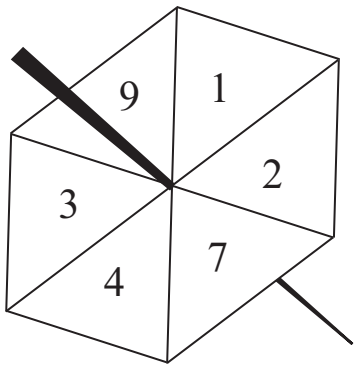
The school will sell all the tickets.

Work out an estimate for the total money the school will get.

£.....

(Total for Question 17 is 3 marks)

18 Here is a fair 6-sided spinner.



Jake is going to spin the spinner once.

(a) Write down the probability that the spinner will land

(i) on 4

.....

(ii) on a number greater than 10

.....

(2)

Liz is going to spin the spinner 120 times.

(b) Work out an estimate for the number of times the spinner will land on 7

.....

(2)

(Total for Question 18 is 4 marks)

19 One kilogram of cheese costs £5.60
Jane buys 200 g of cheese.

Work out how much Jane pays.

£.....

(Total for Question 19 is 3 marks)

20 Ed has 4 cards.
There is a number on each card.



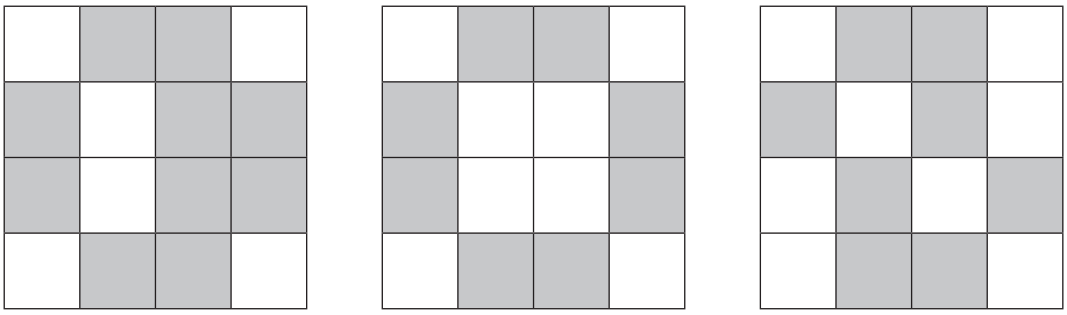
The mean of the 4 numbers on Ed's cards is 10

Work out the number on the 4th card.

.....

(Total for Question 20 is 3 marks)

21 The diagrams show patterns made from grey tiles and white tiles.



A B C

One of the patterns has exactly 1 line of symmetry.

(a) Write down the letter of this pattern.

.....

(1)

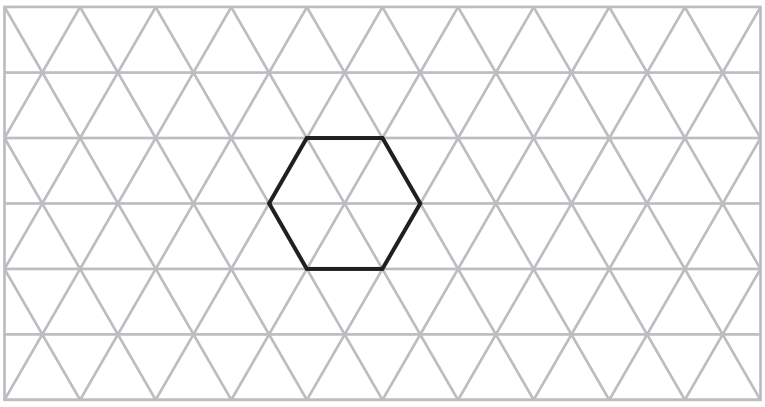
(b) Write down the order of rotational symmetry of pattern C.

.....

(1)

The diagram on the grid shows a tile in the shape of a hexagon.

(c) On the grid, show how the tile will tessellate.
You should draw at least 6 tiles.



(2)

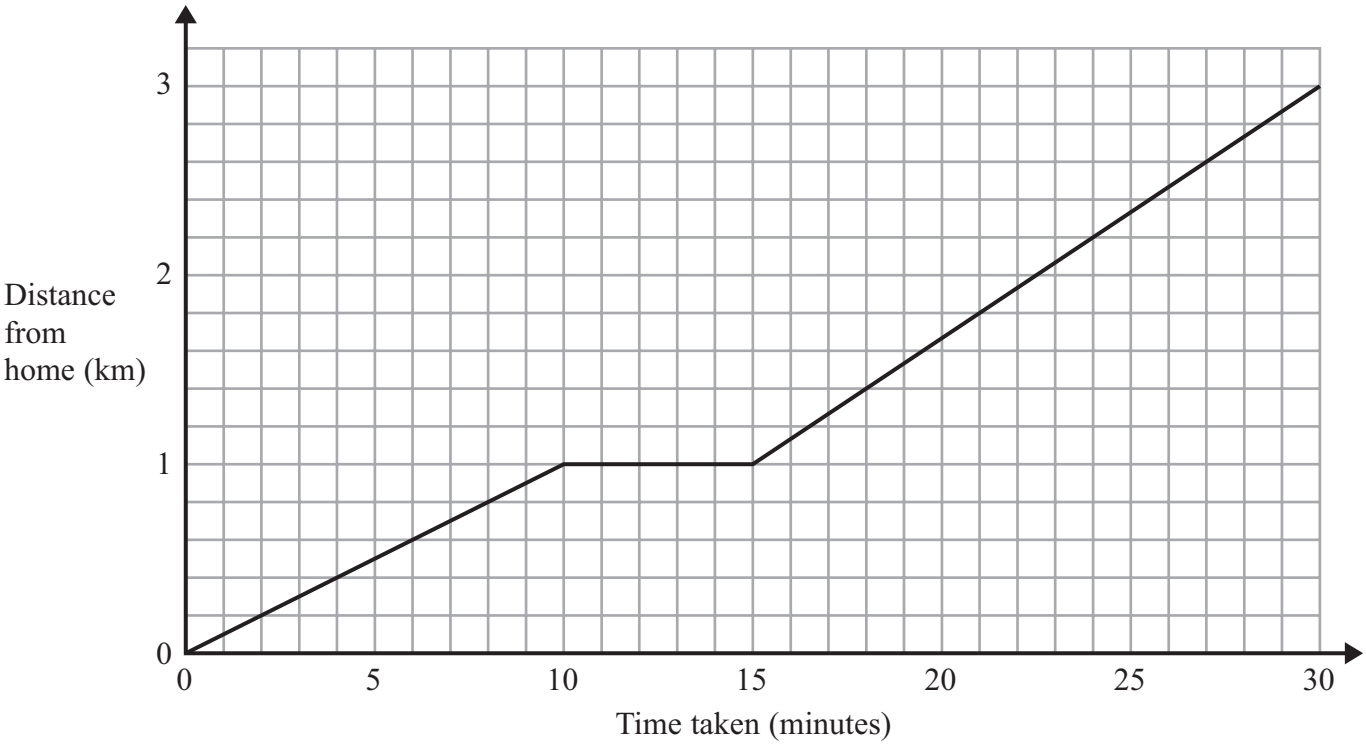
(Total for Question 21 is 4 marks)

22 On Monday, Holly walked from her home to school.
She stopped at her friend's house on the way to school.

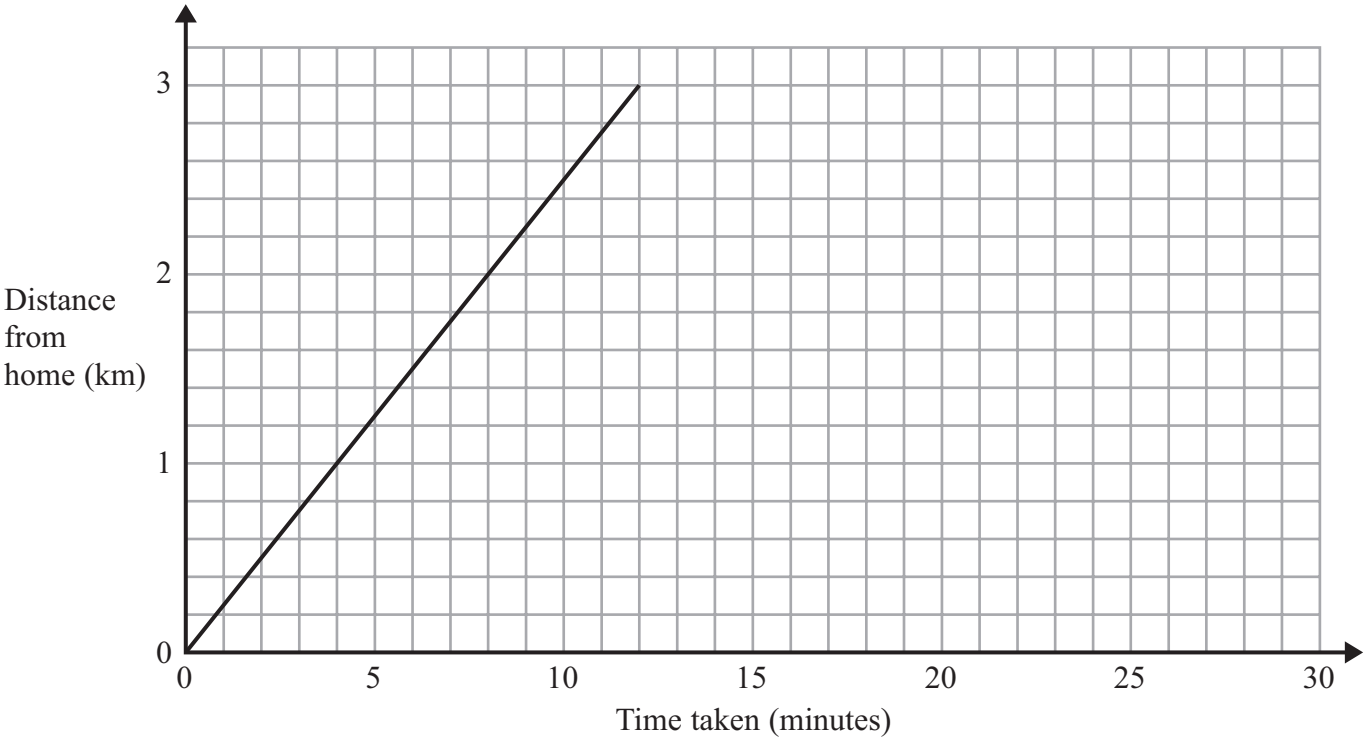
On Tuesday, Holly cycled from her home to school.

The travel graphs show Holly's journey on Monday and on Tuesday.

Monday



Tuesday



(a) Write down the distance from Holly's home to school.

..... km
(1)

(b) Write down how long Holly stopped at her friend's house on Monday.

..... minutes
(1)

Holly took less time to get to school on Tuesday than on Monday.

(c) How many minutes less?

..... minutes
(2)

(Total for Question 22 is 4 marks)

23 (a) Solve $x + 9 = 19$

.....
(1)

(b) Solve $2y = 17$

.....
(1)

(c) Solve $\frac{w}{4} = 8$

.....
(1)

(d) Expand $3(2 + t)$

.....
(1)

(Total for Question 23 is 4 marks)

24 There are 40 people at a meeting.
Each person travelled to the meeting either by car or by train.

13 of the people are male.
10 females travelled by train.
8 males travelled by car.

Work out the total number of people who travelled by car.

.....

(Total for Question 24 is 3 marks)

***25**

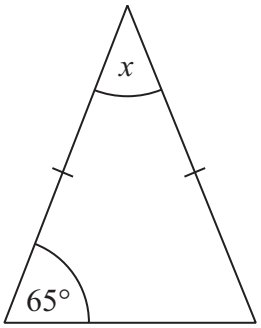
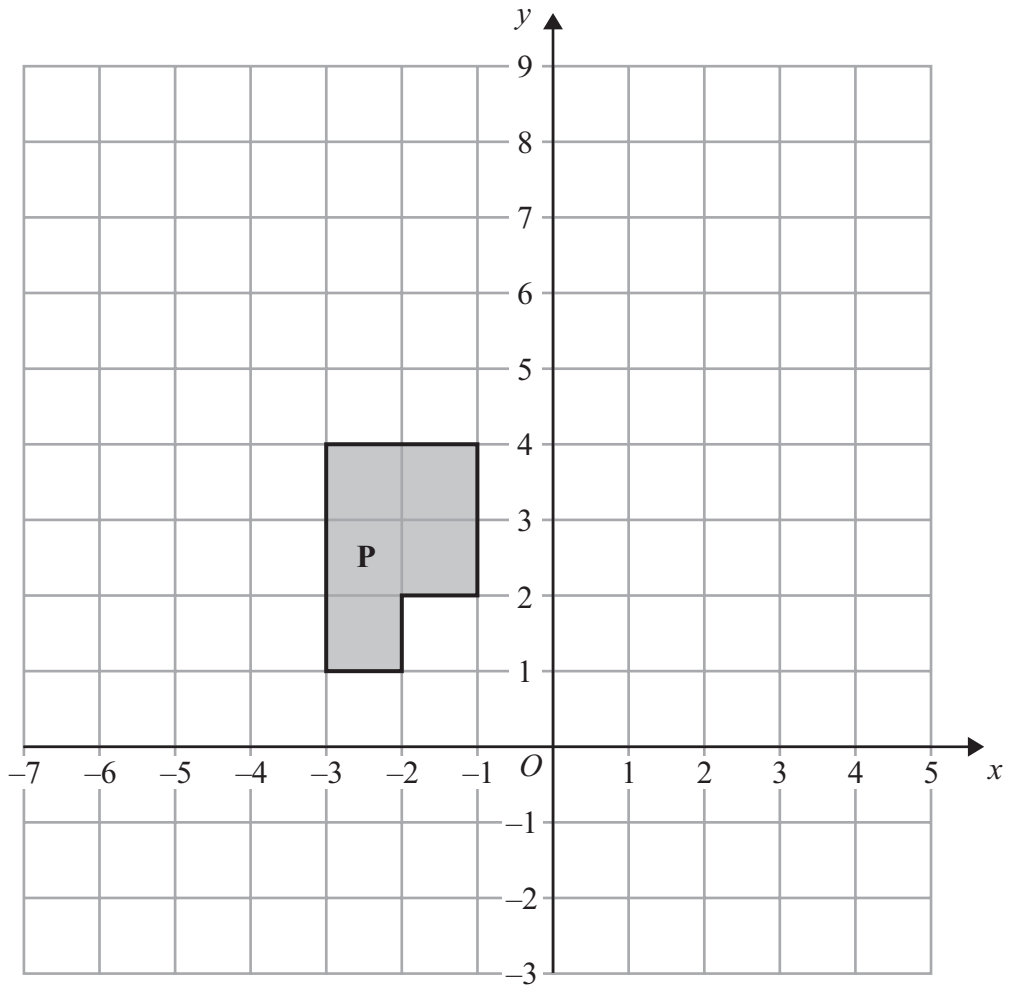


Diagram **NOT** accurately drawn

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

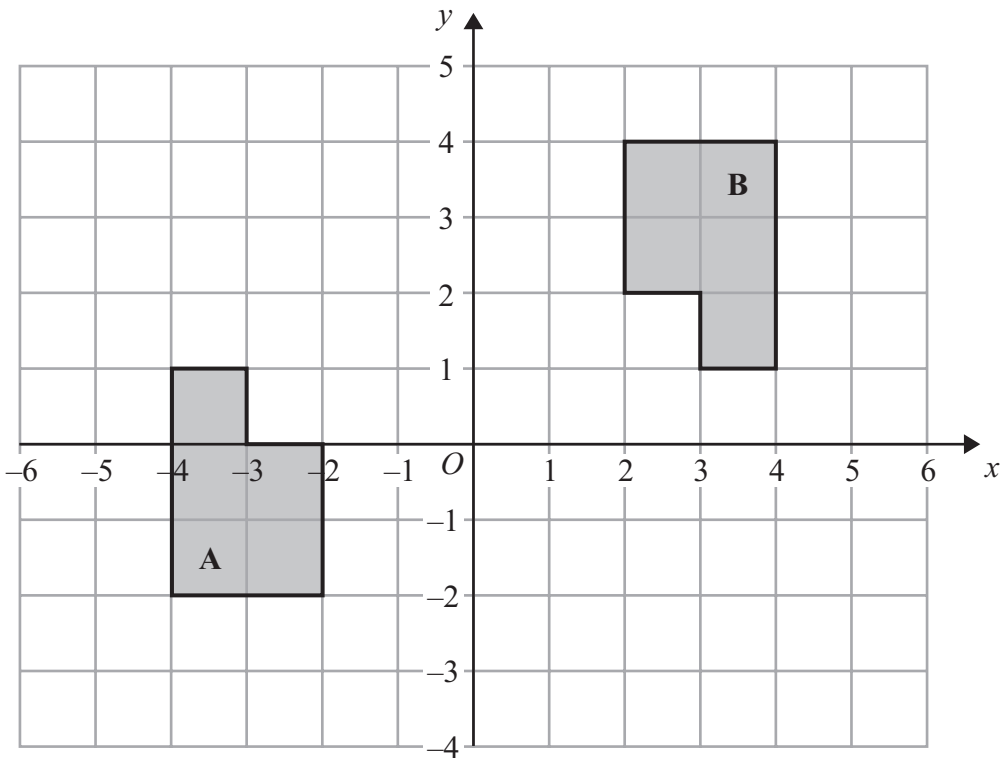
(Total for Question 25 is 3 marks)

26



(a) Translate shape **P** by the vector $\begin{pmatrix} 5 \\ -2 \end{pmatrix}$

(2)



(b) Describe fully the single transformation that maps shape **A** onto shape **B**.

.....

.....

(3)

(Total for Question 26 is 5 marks)

27 Mr Mason asks 240 Year 11 students what they want to do next year.

15% of the students want to go to college.

$\frac{3}{4}$ of the students want to stay at school.

The rest of the students do not know.

Work out the number of students who do not know.

.....

(Total for Question 27 is 4 marks)

28 The diagram shows a garden in the shape of a rectangle.

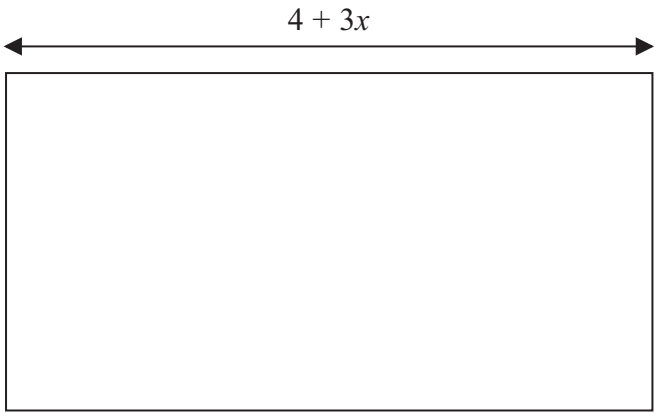


Diagram **NOT** accurately drawn

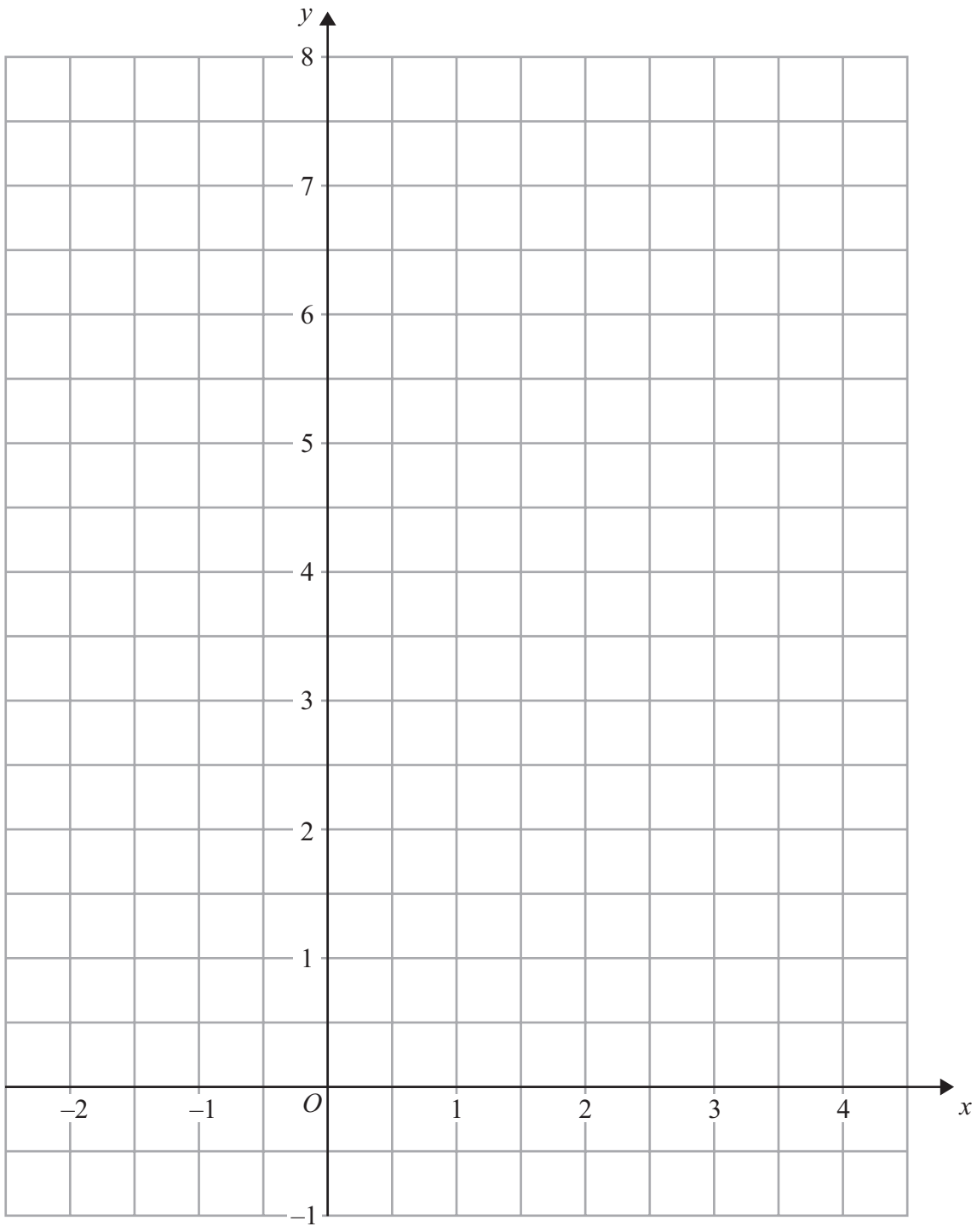
All measurements are in metres.
The perimeter of the garden is 32 metres.

Work out the value of x

.....

(Total for Question 28 is 4 marks)

29 On the grid, draw the graph of $y = \frac{1}{2}x + 5$ for values of x from –2 to 4



(Total for Question 29 is 3 marks)

TOTAL FOR PAPER IS 100 MARKS

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