Centre No.						Paper Reference							Surname	Initial(s)
Candidate No.						5	5	2	1	/	0	1	Signature	

Paper Reference(s)

5521/01

Examiner's use only

Team Leader's use only

Edexcel GCSE

Mathematics A – 1387

Paper 1 (Non-Calculator)

Foundation Tier

Tuesday 6 November 2007 – Morning

Time: 1 hour 30 minutes

Materials required for examination
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.
Tracing paper may be used.

Items included with question papers
Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initials and signature.
Check that you have the correct question paper.
Answer ALL the questions. Write your answers in the spaces provided in this question paper.
You must NOT write on the formulae page. Anything you write on the formulae page will gain NO credit.
If you need more space to complete your answer to any question, use additional answer sheets.

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. **(2)**.
There are 25 questions in this question paper. The total mark for this paper is 100.
There are 20 pages in this question paper. Any blank pages are indicated.
Calculators must not be used.

Advice to Candidates

Show all stages in any calculations.
Work steadily through the paper. Do not spend too long on one question.
If you cannot answer a question, leave it and attempt the next one.
Return at the end to those you have left out.

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Turn over

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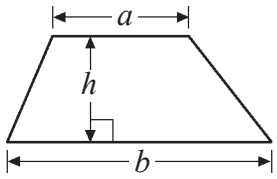
GCSE Mathematics 1387/8

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



Leave blank

Answer ALL TWENTY FIVE 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 the number 5250 in words.

.....

(1)

(b) Write 23 250 to the nearest thousand.

.....

(1)

(c) Write down the value of the 3 in the number 42 350

.....

(1)

(d) Write **six thousand three hundred and seventy four** in figures.

.....

(1) **Q1**

(Total 4 marks)

2. (a) Work out 500 – 107

.....

(2)

(b) Work out 327 × 4

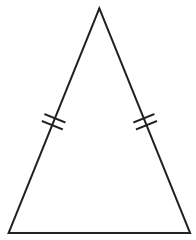
.....

(2) **Q2**

(Total 4 marks)

Leave blank

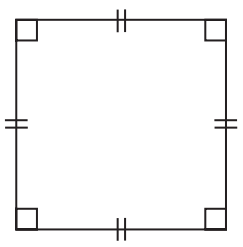
3. (a) Here is a triangle.
What type of triangle is it?



.....

(1)

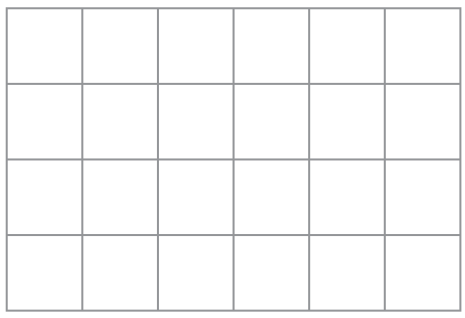
(b) Here is a quadrilateral.
What type of quadrilateral is it?



.....

(1)

(c) On the grid below, draw a trapezium.

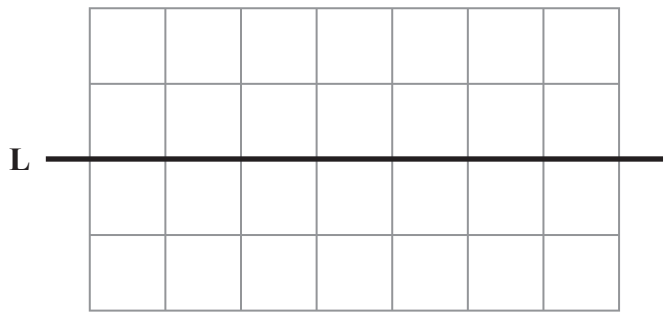


(1) **Q3**

(Total 3 marks)

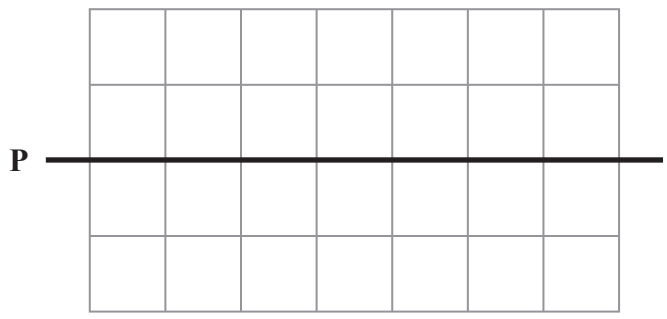
Leave blank

4. (a) On the grid, draw a line that is parallel to the line **L**.



(1)

(b) On the grid, draw a line perpendicular to the line **P**.

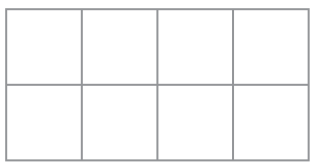


(1)

(Total 2 marks)

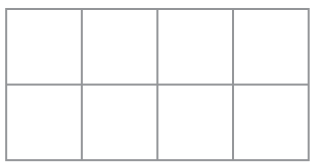
Q4

5. (a) Shade $\frac{3}{4}$ of this shape.



(1)

(b) Shade 0.25 of this shape.



(1)

(c) Change 0.3 into a fraction.

.....

(1)

(d) Change 0.7 into a percentage.

..... %

(1)

(e) Work out $\frac{3}{4}$ of £36

£ .....

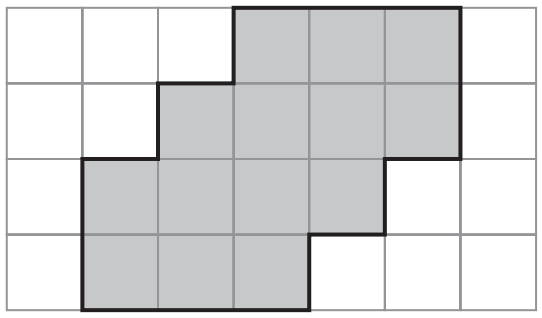
(2)

(Total 6 marks)

Q5

Leave blank

6. This shaded shape is drawn on a grid of centimetre squares.



(a) Find the perimeter of the shaded shape.

..... cm
(1)

(b) Find the area of the shaded shape.

..... cm^2
(1)

This solid prism is made from centimetre cubes.

(c) Find the volume of the prism.

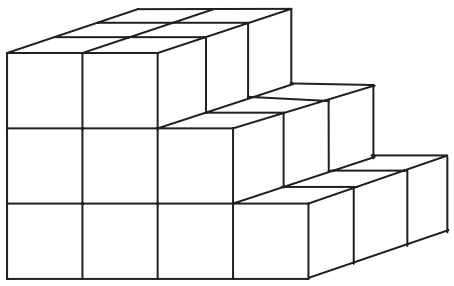


Diagram **NOT** accurately drawn

..... cm^3
(2)

Q6

(Total 4 marks)

Leave blank

7. Here are the first four terms of a number sequence.

2 7 12 17

(a) Write down the next two terms of this number sequence.

..... , ...

(2)

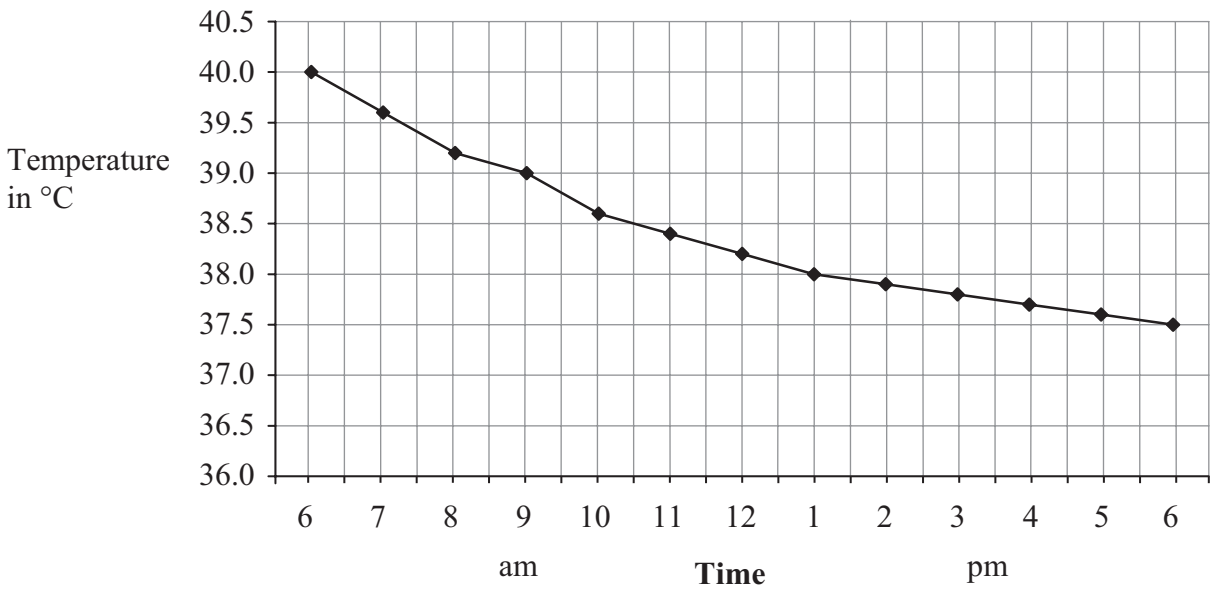
(b) Work out the 10th term of this number sequence.

.....

(2) Q7

(Total 4 marks)

8. José is in hospital.
Here is his temperature chart during one day.



(a) At what time was José's temperature 39.0 °C?

.....

(1)

(b) What can you say about José's temperature from 6 am to 6 pm?

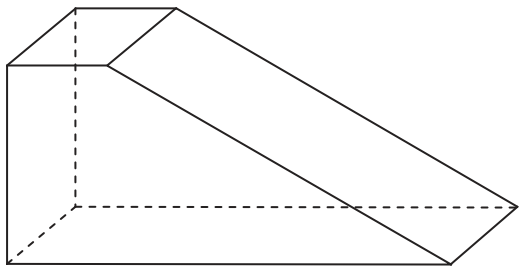
.....

(1) Q8

(Total 2 marks)

Leave blank

9. Here is a diagram of a 3-D prism.



Write down the number of (i) faces, ...

(ii) edges, ...

(iii) vertices. .....

(Total 3 marks)

Q9

10. Here is part of a bus timetable.

Bus Station	07 00	07 30	08 00
Castle Street	07 10	07 40	08 15
High Street	07 25	07 55	08 25
Station Road	07 37	08 07	08 37
Church Street	07 50	08 20	08 50
Wharf Inn	07 55	08 25	08 55

A bus leaves the Bus Station at 07 00

(a) At what time should the 07 00 bus arrive at Station Road?

.....

(1)

Jill arrives at High Street at 07 45
She wants to catch a bus to Wharf Inn.

(b) How long should she have to wait for the next bus?

..... minutes

(1)

A bus leaves Station Road at 08 37

(c) How long should this bus take to travel from Station Road to Wharf Inn?

..... minutes

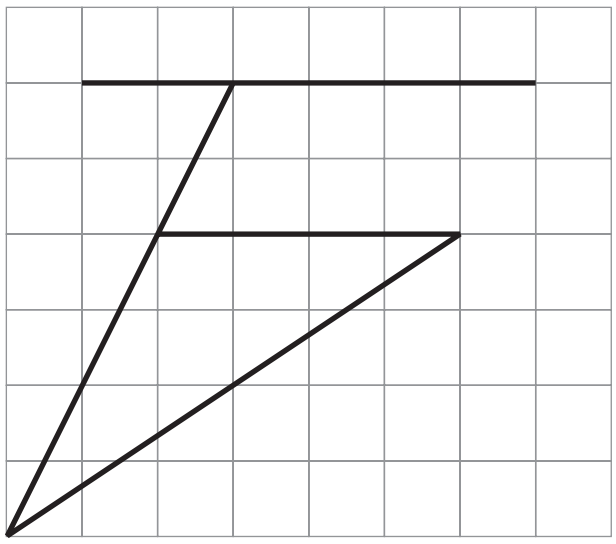
(1)

(Total 3 marks)

Q10

Leave blank

11. Here is a diagram drawn on a square grid.



(a) Mark, with arrows (>>), a pair of parallel lines.

(1)

(b) Mark, with the letter A, an acute angle.

(1)

(c) Mark, with the letter O, an obtuse angle.

(1) **Q11**

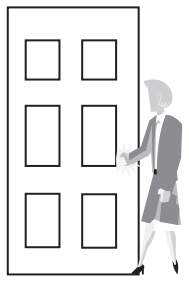
(Total 3 marks)

12. (a) Complete this table.
Write a sensible unit for each measurement.
Three have been done for you.

	Metric	Imperial
Distance from London to Cardiff	km	.....
Weight of a bag of potatoes	.....	pounds
Volume of fuel in a car's fuel tank	.....	gallons

(3)

(b) Here is a picture of a woman opening a door that is 2 m high.
Estimate the height of the woman.



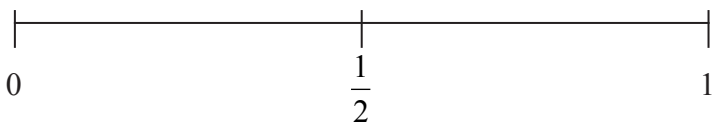
..... m

(2) **Q12**

(Total 5 marks)

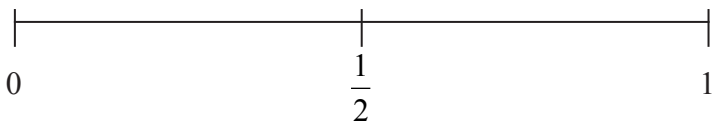
Leave blank

13. (a) On the probability scale below, mark with a cross (×)
the probability that it will rain on at least one day in London in 2008.



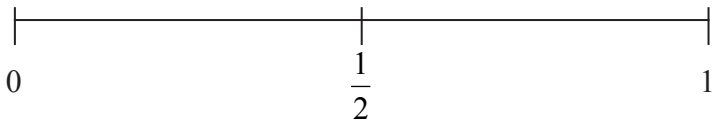
(1)

(b) On the probability scale below, mark with a cross (×)
the probability that you will get a 10 when you roll an ordinary 6-sided dice.



(1)

(c) On the probability scale below, mark with a cross (×)
the probability that you will get a head when you throw a coin.



(1) **Q13**

(Total 3 marks)

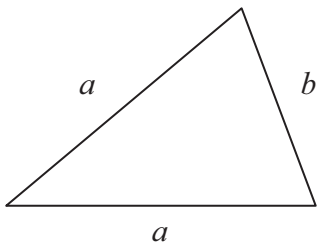
Leave blank

14. Kalim thinks of a number.
He multiplies the number by 2
He then adds 3

His answer is 27
(a) What number did Kalim think of?

.....
(2)

Emma uses the formula $P = 2a + b$
to find the perimeter P of this triangle.



(b) Find the value of P when

$a = 5$ and $b = 3$

$P =$ .....
(2)

Q14

(Total 4 marks)

15. (a) Work out the value of

(i) 4^2

.....

(ii) $\sqrt{64}$

.....

(iii) 3×2^3

.....
(3)

(b) Work out

(i) $-2 + 5$

.....

(ii) $-2 - 3$

.....
(2)

Q15

(Total 5 marks)

Leave blank

16. (a) Work out £3.75 × 24

£ .....

(3)

(b) Divide £135 by 20

£ .....

£ .....

(3) **Q16**

(Total 6 marks)

Leave blank

17. The two-way table shows some information about the colours of Ford cars and of Toyota cars in a garage.

	white	blue	red	Total
Ford	5			21
Toyota		7		
Total	9	16		40

(a) Write down the total number of white cars.

.....

(1)

(b) Complete the two-way table.

(3)

One of these 40 cars is to be picked at random.

(c) Work out the probability that this car will be blue.

.....

(1)

(Total 5 marks)

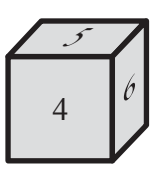
Q17

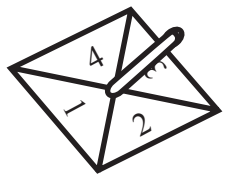
Leave blank

18. Joe rolls a 6-sided dice and spins a 4-sided spinner.

The dice is labelled 1, 2, 3, 4, 5, 6

The spinner is labelled 1, 2, 3, 4





Joe adds the score on the dice and the score on the spinner to get the total score.

He records the possible total scores in a table.

+	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3					
3	4					
4	5					

(a) Complete the table of possible total scores.

(2)

(b) Write down all the ways in which Joe can get a total score of 5
One of them has been done for you.

(1, 4), ...

(2)

(c) Write down all the ways Joe can get a total score of 8 or more.

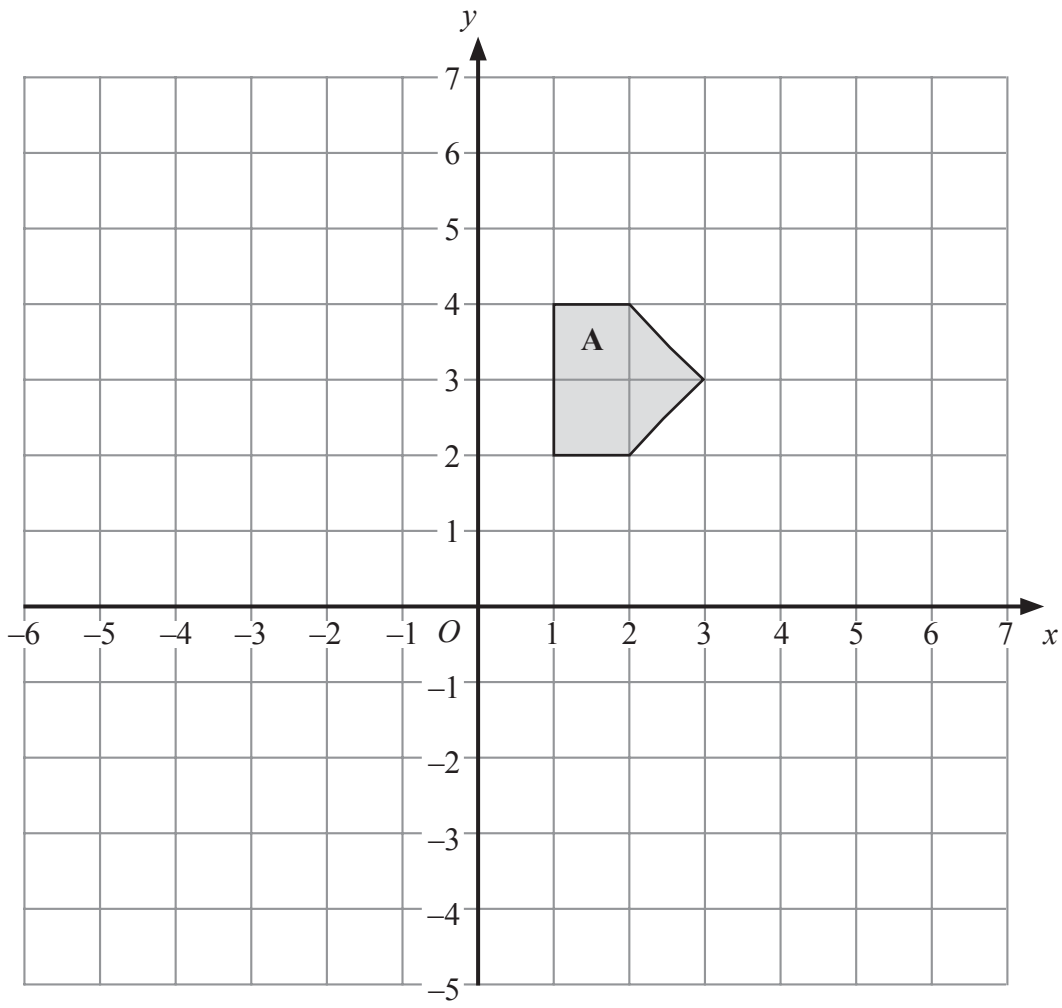
.....

(2) **Q18**

(Total 6 marks)

Leave blank

19.



(a) Reflect Shape **A** in the *y* axis.
Label your new shape **B**.

(2)

(b) Translate Shape **A** by 3 squares right and 2 squares down.
Label your new shape **C**.

(2) **Q19**

(Total 4 marks)

Leave blank

20. The cost of hiring a car can be worked out using this rule.

Cost = £90 + 50p per mile

Bill hires a car and drives 80 miles.

(a) Work out the cost.

£ .....

(2)

The cost of hiring a car and driving m miles is C pounds.

(b) Complete the formula for C in terms of m.

C = ...

(2)

Q20

(Total 4 marks)

Leave blank

21.

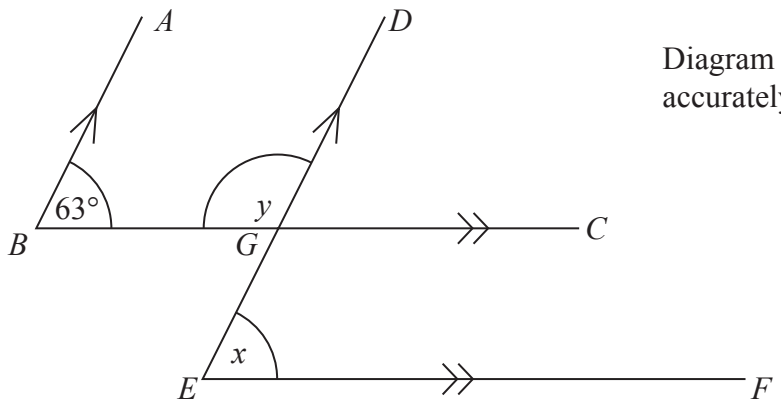


Diagram **NOT** accurately drawn

BA is parallel to *EGD*.
BGC is parallel to *EF*.
Angle *ABC* = 63°.

(a) (i) Find the size of angle *x*.

..... °

(ii) Give a reason for your answer.

.....

.....

(2)

(b) Work out the size of angle *y*.

..... °

(1)

Q21

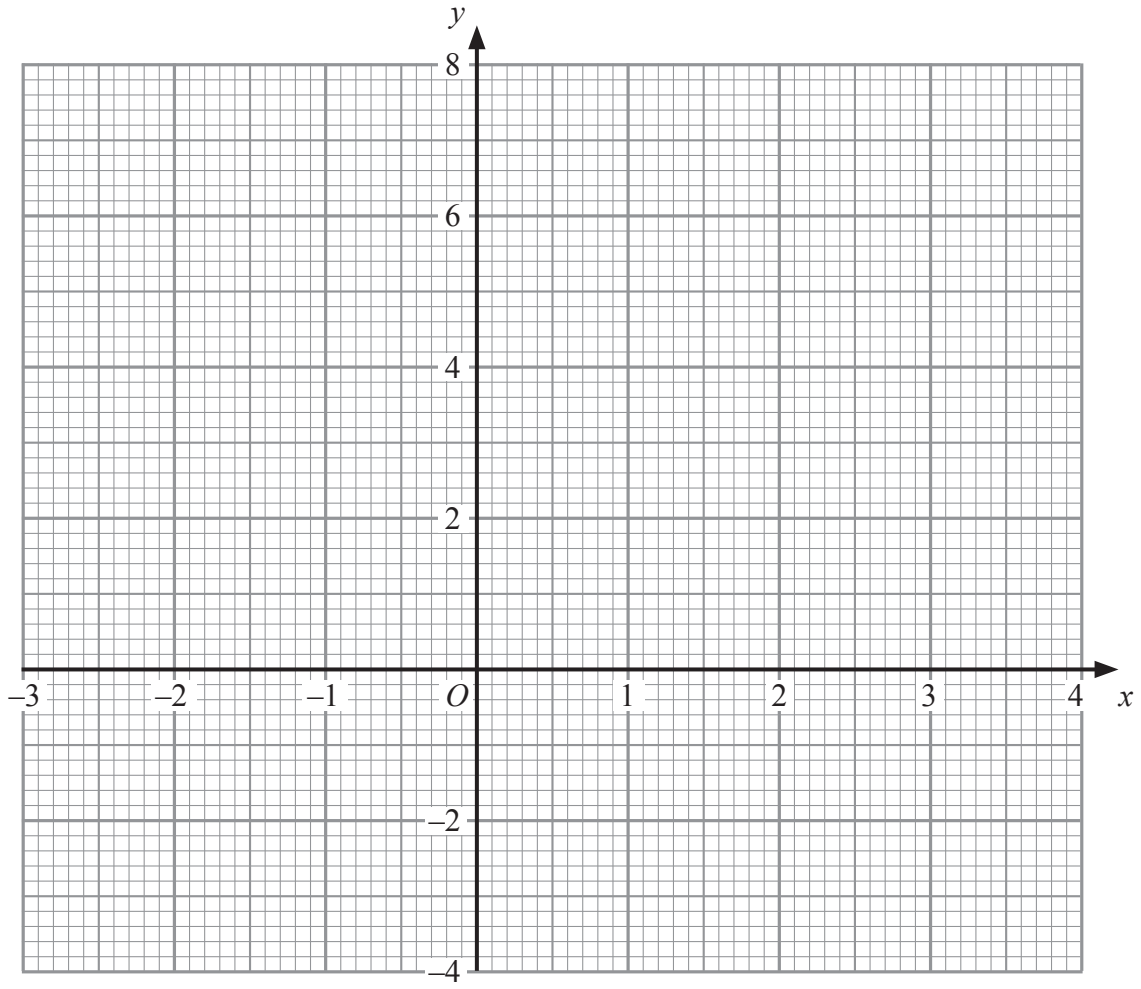
(Total 3 marks)

Leave blank

22. (a) Complete this table of values for $y = 2x - 1$

x	–1	0	1	2	3	4
y		–1		3	5	

(2)



(b) On the grid, draw the graph of $y = 2x - 1$

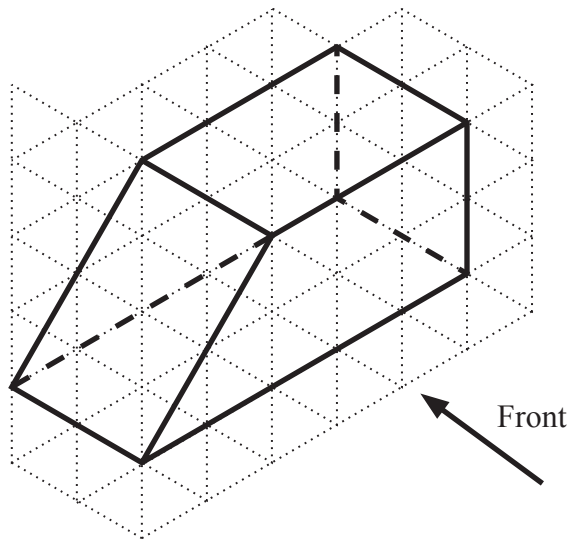
(2)

(Total 4 marks)

Q22

Leave blank

23. The diagram shows a prism drawn on a centimetre isometric grid.



(a) On the centimetre grid, draw the front elevation of the prism from the direction marked by the arrow.

(2)

(b) On the centimetre grid draw a plan of the prism.

(2) **Q23**

(Total 4 marks)

Turn over

Leave blank

24. (a) Factorise $x^2 - 5x$

.....

(2)

(b) Expand $3(5x - 2)$

.....

(1) **Q24**

(Total 3 marks)

25. A hotel has 56 guests.
35 of the guests are male.

(a) Work out 35 out of 56 as a percentage.

..... %

(2)

40% of the 35 male guests wear glasses.

(b) Write the number of male guests who wear glasses as a fraction of the 56 guests.
Give your answer in its simplest form.

.....

(4) **Q25**

(Total 6 marks)

TOTAL FOR PAPER: 100 MARKS

END