

Centre No.						Paper Reference					Surname	Initial(s)	
Candidate No.						1	3	8	0	/	1	Signature	

Paper Reference(s)

**1380/3H**

**Edexcel GCSE**

**Mathematics (Linear) – 1380**

Paper 3 (Non-Calculator)

**Algebra for Foundation**

Past Paper Questions

Arranged by Topic

Examiner's use only

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Team Leader's use only

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**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 26 questions in this question paper. The total mark for this paper is 100.

There are 24 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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**1. Kalim thinks of a number.**

He multiplies the number by 2

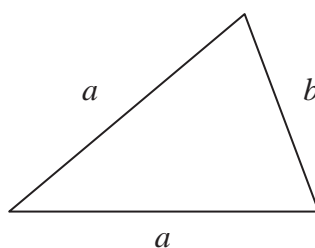
He then adds 3

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)

**Q1**

**(Total 4 marks)**

**2. (a) Work out the value of**

(i)  $4^2$

.....

(ii)  $\sqrt{64}$

.....

(iii)  $3 \times 2^3$

.....  
(3)

(b) Work out

(i)  $-2 + 5$

.....

(ii)  $-2 - 3$

.....  
(2)

**Q2**

**(Total 5 marks)**

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

$$\text{Cost} = \text{£}90 + 50\text{p per mile}$$

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  $m$ .

$C = \dots\dots\dots$   
(2)

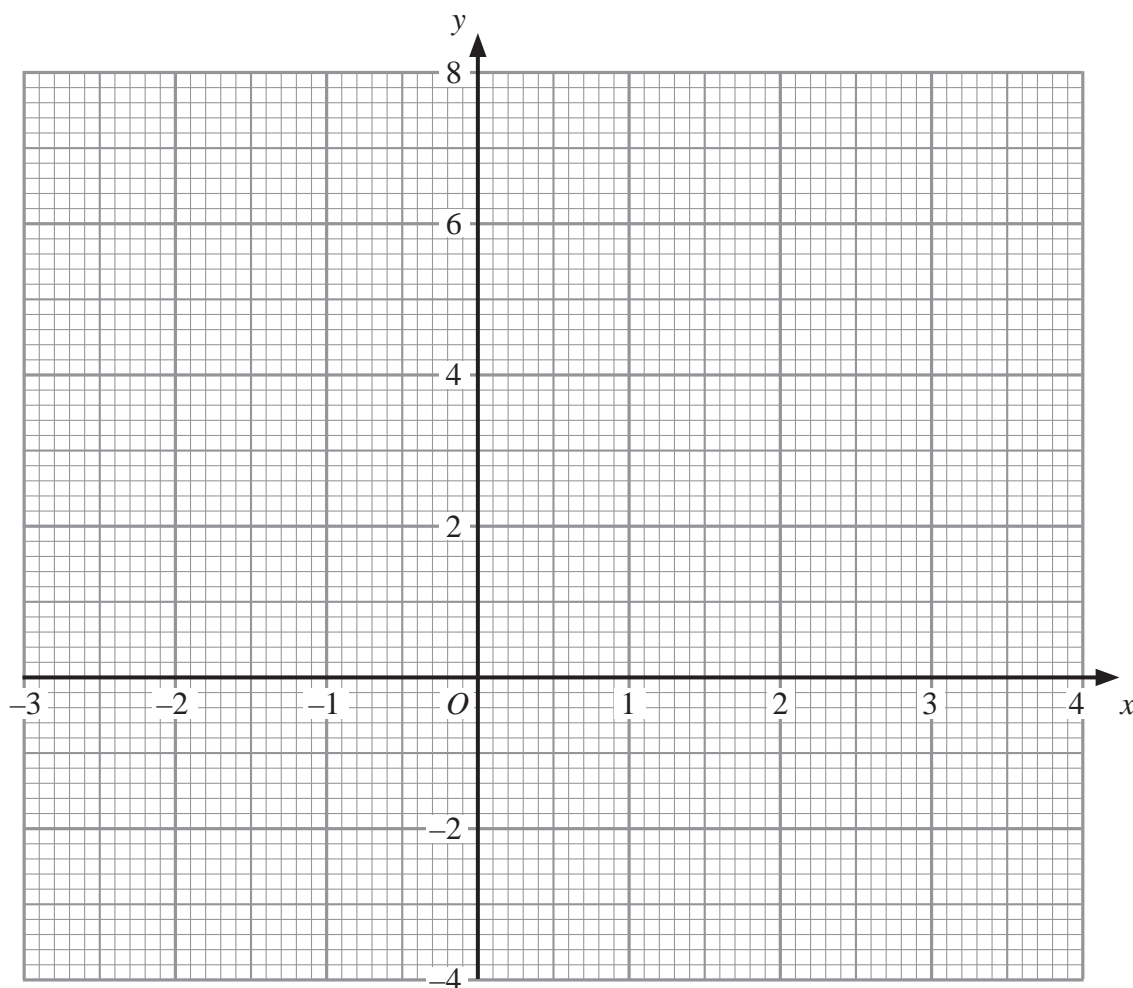
**(Total 4 marks)**

**Q3**

4. (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)

Q4

(Total 4 marks)

Leave  
blank

5. Work out an estimate for the value of  $\frac{31 \times 4.92}{0.21}$

.....  
**Q5**

.....  
**(Total 3 marks)**

6. (a) Expand  $y(2y - 3)$

.....  
**(1)**

(b) Factorise  $x^2 - 4x$

.....  
**(2)**

$k$  is an integer such that  $-1 \leq k < 3$

(c) List all the possible values of  $k$ .

.....  
**(2)**

.....  
**(Total 5 marks)**

**Q6**

Leave  
blank

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

.....  
(2)

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

.....  
(1)

**(Total 3 marks)**

**Q7**

8. 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)

**(Total 6 marks)**

**Q8**

9. (a) Simplify  $8x - 4x$

.....  
(1)

(b) Simplify  $y \times y \times y$

.....  
(1)

(c) Simplify  $4x + 3y - 2x + 5y$

.....  
(2)

**Q9**

**(Total 4 marks)**

10. The two-way table gives some information about how 100 children travelled to school one day.

	Walk	Car	Other	Total
Boy	15		14	54
Girl		8	16	
Total	37			100

(a) Complete the two-way table.

(3)

One of the children is picked at random.

(b) Write down the probability that this child walked to school that day.

.....  
(1)

One of the girls is picked at random.

(c) Work out the probability that this girl did **not** walk to school that day.

.....  
(2)

Q10

(Total 6 marks)

11. Compasses cost  $c$  pence each.  
Rulers cost  $r$  pence each.

Write down an expression for the total cost, in pence, of 2 compasses and 4 rulers.

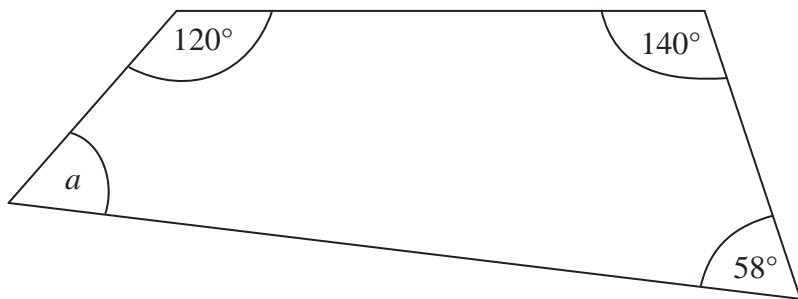
..... pence  
(Total 2 marks)

Q11



12.

Diagram **NOT** accurately drawn



Work out the size of the angle  $a$ .

.....<sup>o</sup>

**(Total 2 marks)**

Q12

13. (a) Solve  $4x + 1 = 9$

$x =$  .....  
**(2)**

(b) Solve  $2y - 1 = 12$

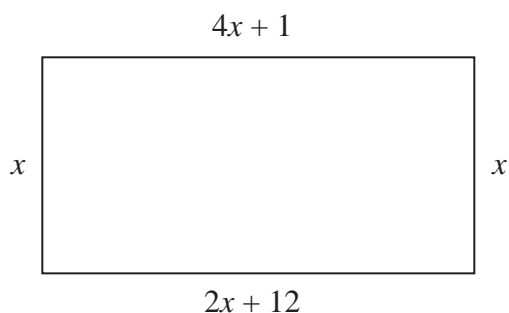
$y =$  .....  
**(2)**

**(Total 4 marks)**

Q13

14.

Diagram **NOT** accurately drawn



The diagram shows a rectangle.  
All the measurements are in centimetres.

(a) Explain why  $4x + 1 = 2x + 12$

..... (1)

(b) Solve  $4x + 1 = 2x + 12$

$x =$  ..... (2)

(c) Use your answer to part (b) to work out the perimeter of the rectangle.

..... cm (2)

(Total 5 marks)

Q14

15. (a) Simplify  $5bc + 2bc - 4bc$

.....  
(1)

(b) Simplify  $4x + 3y - 2x + 2y$

.....  
(2)

(c) Simplify  $m \times m \times m$

.....  
(1)

(d) Simplify  $3n \times 2p$

.....  
(1)

(e) Factorise  $5m + 10$

.....  
(1)

Q15

(Total 6 marks)

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