

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

Paper Reference(s)

**1380/3H**

**Edexcel GCSE**

**Mathematics (Linear) – 1380**

**Paper 3 (Non-Calculator)**

**Number**

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.

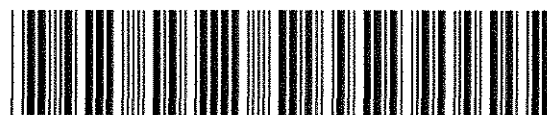
Work steadily through the paper. Do not spend too long on one question.

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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Compiled by Peter Bland



N 3 4 7 3 0 A 0 1 2 4

*Turn over*

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Answer ALL TWENTY questions.

Write your answers in the spaces provided.

You must write down all stages in your working.

You must NOT use a calculator.

1. Using the information that

$$74 \times 234 = 17\,316$$

write down the value of

(a)  $740 \times 234$

$$\begin{array}{r} 173160 \\ \hline \end{array} \quad (1)$$

(b)  $74 \times 2.34$

$$\begin{array}{r} 173.16 \\ \hline \end{array} \quad (1)$$

(Total 2 marks)

Q1

2. Work out an estimate for the value of

$$\frac{31 \times 4.92}{0.21}$$

$$\frac{30 \times 5}{0.2} = \frac{150}{0.2} = 750$$

$$\begin{array}{r} 750 \\ \hline \end{array}$$

(Total 3 marks)

Q2



3. (a) Work out  $\frac{3}{8} + \frac{1}{4}$

Give your answer in its simplest form.

$$\frac{3}{8} + \frac{1}{4} = \frac{12 + 8}{32} = \frac{20}{32} = \frac{10}{16} = \frac{5}{8}$$

5/8

(2)

(b) Work out  $\frac{2}{3} \times \frac{4}{5}$

$$\frac{2 \times 4}{3 \times 5} = \frac{8}{15}$$

8/15

(2)

(c) Work out  $423 \times 12$

You must show all your working.

~~423~~

$$\begin{array}{r} 423 \\ \times 12 \\ \hline 846 \\ 423 \times \\ \hline 5076 \end{array}$$

5076

(3)

Q3

(Total 7 marks)



4. Simon wants to find out how much people spend using their mobile phone.

He uses this question on a questionnaire.

How much do you spend using your mobile phone?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
£1-£5	£5-£10	£10-£15

(a) Write down two things that are wrong with this question.

1 The questionnaire contains overlapping numbers

2 No time period given

(2)

(b) Design a better question for his questionnaire to find out how much people spend using their mobile phone.

You should include some response boxes.

How much money do you spend on your mobile phone in a week?

- None
- £1 - £5
- £6 - £10
- £11 - £15
- £16 +

(2)

Q4

(Total 4 marks)



5. (a) A solid cube has sides of length 5 cm.

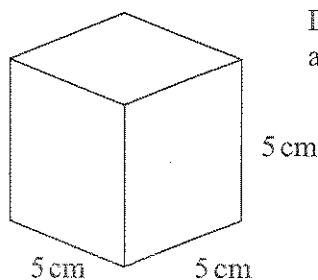


Diagram NOT accurately drawn

Work out the total surface area of the cube.  
State the units of your answer.

Area of 1 face =  $25 \text{ cm}^2$   
6 faces on a cube

$$\begin{array}{r} 25 \\ \times 6 \\ \hline 150 \end{array} \text{ cm}^2$$

$$\underline{\hspace{1cm} 150 \text{ cm}^2 \hspace{1cm}} \quad (4)$$

The volume of the cube is  $125 \text{ cm}^3$ .

(b) Change  $125 \text{ cm}^3$  into  $\text{mm}^3$ .

$$125 \times 1000$$

$$\underline{\hspace{1cm} 125000 \hspace{1cm}} \text{ mm}^3 \quad (2)$$

The weight of the cube is 87 grams, correct to the nearest gram.

(c) (i) What is the minimum the weight could be?

$$\underline{\hspace{1cm} 86.5 \hspace{1cm}} \text{ grams}$$

(ii) What is the maximum the weight could be?

$$\underline{\hspace{1cm} 87.5 \hspace{1cm}} \text{ grams} \quad (2)$$

(Total 8 marks)


Q5



6. A tin of cat food costs 40p.  
A shop has a special offer on the cat food.

**Special offer**

Pay for 2 tins and get 1 tin free



Julie wants 12 tins of cat food.

- (a) Work out how much she pays.

$$12 \div 3 = 4$$

$$12 - 4 = 8$$

$$8 \times £0.40 = £3.20$$

£ 3.20  
(3)

The normal price of a cat basket is £20  
In a sale, the price of the cat basket is reduced by 15%.

- (b) Work out the sale price of the cat basket.

$$20 \times 15\% = 3$$

$$20 - 3 = £17$$

£ 17  
(3)

Q6

(Total 6 marks)



7. Work out  $\frac{2}{5} + \frac{1}{7}$

$$\frac{2}{5} + \frac{1}{7} = \frac{14+5}{35} = \frac{19}{35}$$

19/35

Q7

(Total 2 marks)

8.

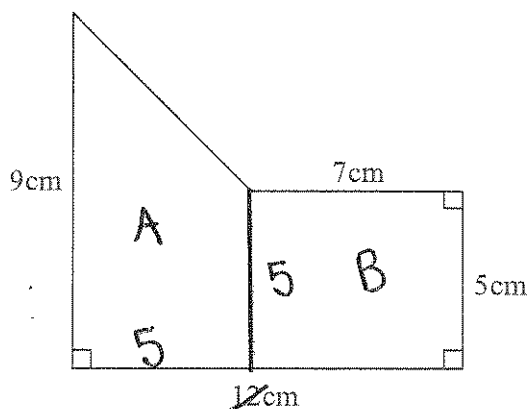


Diagram NOT accurately drawn

Work out the area of the shape.

$$\text{Area of shape A} = \frac{5+9}{2} \times 5 = 35 \text{ cm}^2$$

$$\text{Area of shape B} = 5 \times 7 = 35 \text{ cm}^2$$

$$\text{Total area} = 35 + 35 = 70 \text{ cm}^2$$

70 cm<sup>2</sup>

Q8

(Total 4 marks)



9. Use the information that

$$322 \times 48 = 15456$$

to find the value of

(a)  $3.22 \times 4.8$

$$\underline{15.456} \quad (1)$$

(b)  $0.322 \times 0.48$

$$\underline{0.15456} \quad (1)$$

(c)  $15456 \div 4.8$

$$\underline{3220} \quad (1)$$

(Total 3 marks)

Q9

10.  $2x^2 = 72$

(a) Find a value of  $x$ .

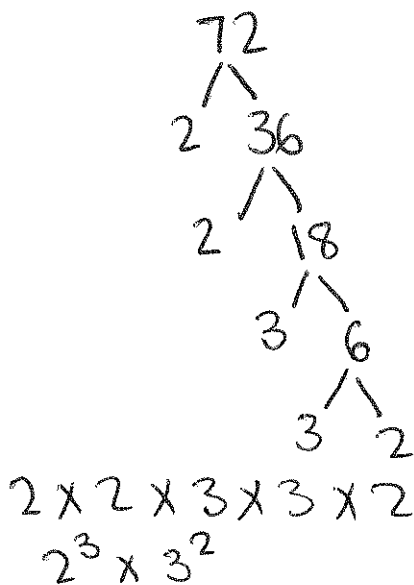
$$2x^2 = 72$$

$$x^2 = \frac{72}{2}$$

$$x^2 = 36 \quad x = \sqrt{36} \quad \underline{\underline{x = 6}}$$

$$\underline{x = 6} \quad (2)$$

(b) Express 72 as a product of its prime factors.



$$\underline{2^3 \times 3^2} \quad (2)$$

(Total 4 marks)

Q10





11. Here are the ingredients needed to make 8 pancakes.

Pancakes
Ingredients to make 8 pancakes
300 ml milk
1 egg
120 g flour
5 g butter

Jacob makes 24 pancakes.

(a) Work out how much milk he needs.

$$24 \div 8 = 3$$

$$\begin{array}{r} 300 \\ \times 3 \\ \hline 900 \end{array}$$

..... 900 ..... ml  
(2)

Cathie makes 12 pancakes.

(b) Work out how much flour she needs.

$$\frac{12}{8} = \frac{6}{4} = \frac{3}{2}$$

$$120 \times \frac{3}{2} = 60 \times 3 = 180 \text{ g}$$

..... 180g ..... g  
(2)

(Total 4 marks)

Q11



12. Kaysha has a part-time job.  
 She is paid £5.40 for each hour she works.  
 Last week Kaysha worked for 24 hours.

Work out Kaysha's total pay for last week.

$$\begin{array}{r}
 5.40 \\
 \times 24 \\
 \hline
 2160 \\
 10800 \\
 \hline
 \pounds 129.60
 \end{array}$$

£ 129.60

Q2

(Total 3 marks)

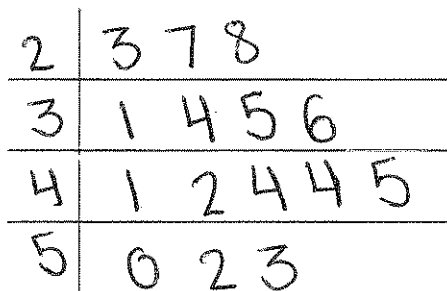
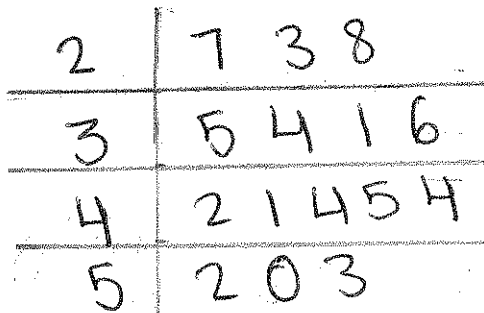
13. Here are the ages, in years, of 15 teachers.

35 52 42 27 36

23 31 41 50 34

44 28 45 45 53

Draw an ordered stem and leaf diagram to show this information.  
 You must include a key.



Key: 2|3 = 23

Q3

(Total 3 marks)



14. Using the information that

$$4.8 \times 34 = 163.2$$

write down the value of

(a)  $48 \times 34$

1632  
(1)

(b)  $4.8 \times 3.4$

16.32  
(1)

(c)  $163.2 \div 48$

3.4  
(1)

Q14

(Total 3 marks)

15.

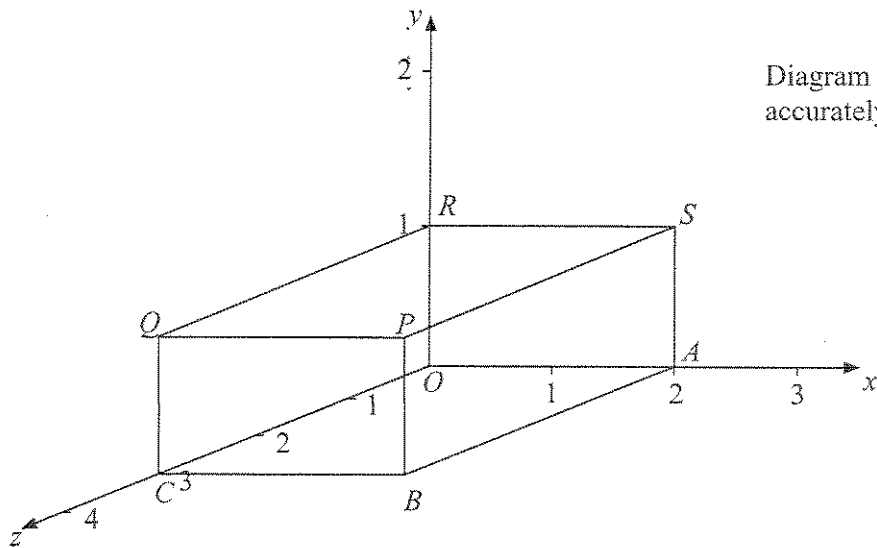


Diagram NOT accurately drawn

A cuboid is shown on a 3-dimensional grid.

(a) Write down the letter of the point with coordinates (2, 1, 0).

5  
(1)

(b) Write down the coordinates of the point P.

(2, 1, 3)  
(1)

Q15

(Total 2 marks)



16. This rule is used to work out the total cost, in pounds, of hiring a carpet cleaner.

Multiply the number of days' hire by 4  
Add 6 to your answer

Peter hires a carpet cleaner.  
The total cost is £18

(a) Work out for how many days he hires the carpet cleaner.

$$18 - 6 = 12$$

$$12 \div 4 = 3$$

.....3..... days  
(2)

(b) Write down an expression, in terms of  $n$ , for the total cost, in pounds, of hiring a carpet cleaner for  $n$  days.

$$4n + 6$$

..... $4n + 6$ .....  
(2)

Q16

(Total 4 marks)



17.

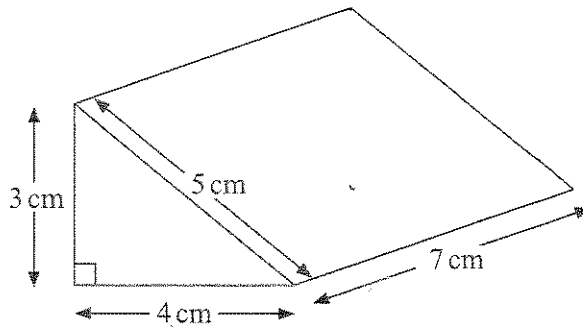


Diagram NOT accurately drawn

Work out the total surface area of the triangular prism.  
Give the units with your answer.

$$\text{The 2 Triangles} = (3 \times 4) \times 2 = 24 \text{ cm}^2$$

$$\text{Top} = 5 \times 7 = 35 \text{ cm}^2$$

$$\text{Bottom} = 4 \times 7 = 28 \text{ cm}^2$$

$$\text{Side} = 3 \times 7 = 21 \text{ cm}^2$$

$$21 + 35 + 28 + 21 = 105 \text{ cm}^2$$

..... 105 cm<sup>2</sup> .....

Q7

(Total 4 marks)



18. Work out an estimate for  $\frac{302 \times 9.96}{0.51}$

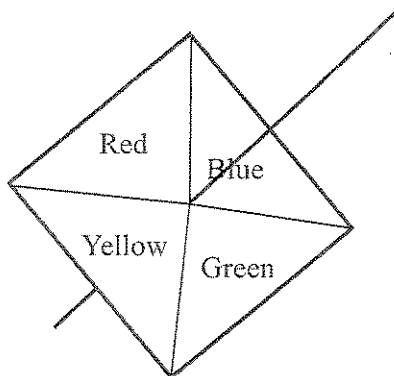
$$\frac{300 \times 10}{0.5} = \frac{3000 \times 2}{0.5 \times 2} = 6000$$

6000

Q18

(Total 3 marks)

19. Here is a 4-sided spinner.



The sides of the spinner are labelled Red, Blue, Green and Yellow.  
The spinner is biased.

The table shows the probability that the spinner will land on each of the colours Red, Yellow and Green.

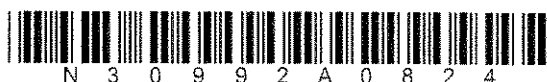
Colour	Red	Blue	Green	Yellow
Probability	0.2	0.4	0.3	0.1

Work out the probability the spinner will land on Blue.

0.4

Q9

(Total 2 marks)



20. (a) Write down the reciprocal of 4

$$\frac{1}{4}$$

(1)

- (b) Work out the value of  $2\frac{4}{5} - 1\frac{3}{4}$

Give your answer as a fraction in its simplest form.

$$2\frac{4}{5} - 1\frac{3}{4}$$

$$\frac{14}{5} - \frac{7}{4} = \frac{56 - 35}{20} = \frac{21}{20} = 1\frac{1}{20}$$

$$1\frac{1}{20}$$

(3)

- (c) Sundas says that  $4\frac{1}{3}$  is equal to 4.3

Sundas is wrong.

Explain why.

Sundas is wrong because  $4\frac{1}{3}$  as a decimal is  $4.3\bar{3}$  recurring

(1)

Q20

(Total 5 marks)



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