

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
3	
4 – 5	
6 – 7	
8 – 9	
10 – 11	
12 – 13	
14 – 15	
16 – 17	
18	
TOTAL	



General Certificate of Secondary Education
Foundation Tier

Mathematics (Linear) B

4365/1F

Paper 1 Non-calculator

F

Practice Paper 2012 Specification (Set 2)

<p>For this paper you must have:</p> <ul style="list-style-type: none"> mathematical instruments. <p>You must not use a calculator.</p>	
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Time allowed

- 1 hour 15 minutes

Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work that you do not want to be marked.

Information

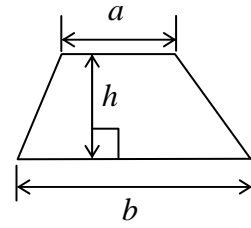
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 70.
- The quality of your written communication is specifically assessed in questions 8, 10 and 16. These questions are indicated with an asterisk (*).
- You may ask for more answer paper, graph paper and tracing paper. These must be tagged securely to this answer booklet.

Advice

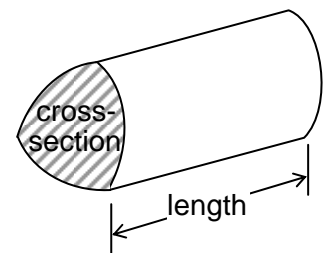
- In all calculations, show clearly how you work out your answer.

Formulae Sheet: Foundation Tier

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



Volume of prism = area of cross-section \times length

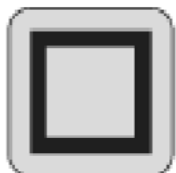


Answer **all** questions in the spaces provided.

1 Here are five road signs.



A



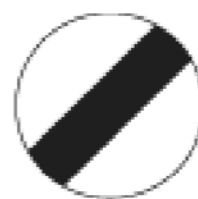
B



C



D



E

1 (a) Which signs have line symmetry?

Answer (1 mark)

1 (b) Which signs have rotational symmetry?

Answer (2 marks)

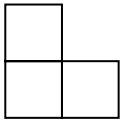
1 (c) Write down the order of rotational symmetry of this sign.



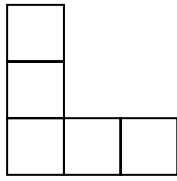
Answer (1 mark)

Turn over for the next question

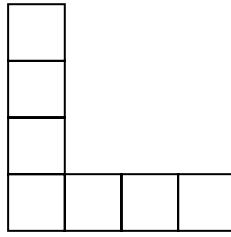
2 Patterns are made from squares.



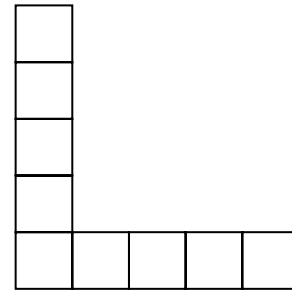
Pattern 1



Pattern 2



Pattern 3



Pattern 4

2 (a) Draw Pattern 5.

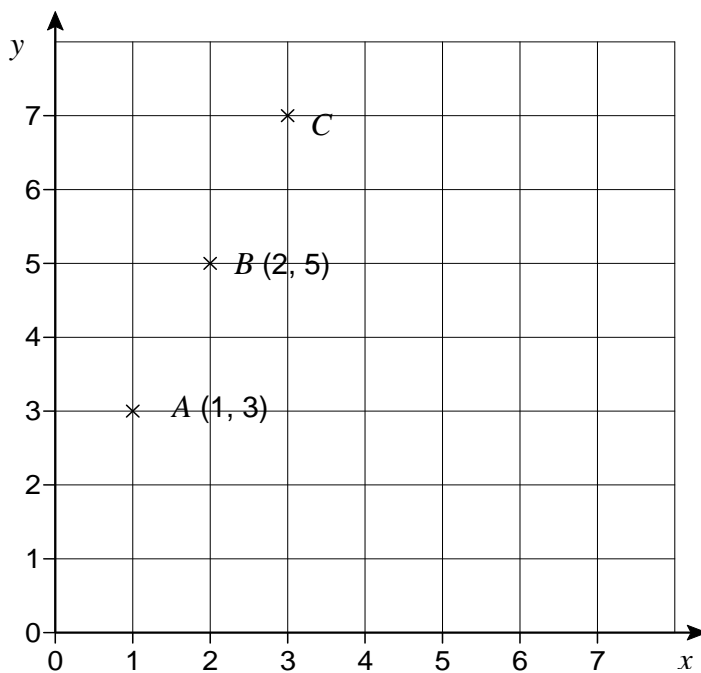
(1 mark)

2 (b) How many squares are in Pattern 9?

.....
.....

Answer (2 marks)

- 3** A , B and C are points plotted in a straight line.



- 3 (a)** Write down the coordinates of C .

Answer (..... ,)

(1 mark)

- 3 (b)** P lies on the same line.
The x -coordinate of P is 5.

Work out the y -coordinate of P .

.....

Answer (5 ,)

(1 mark)

Turn over for the next question

- 4 This is a multiplication grid.

×	5	7
2	10	14
6	30	42

Fill in the missing numbers in the multiplication grid below.

×		8
	12	32
		40

(3 marks)

- 5 Here is a calculation $6 + 3 \times 4 - 2$

James says the answer is 34.

He is wrong.

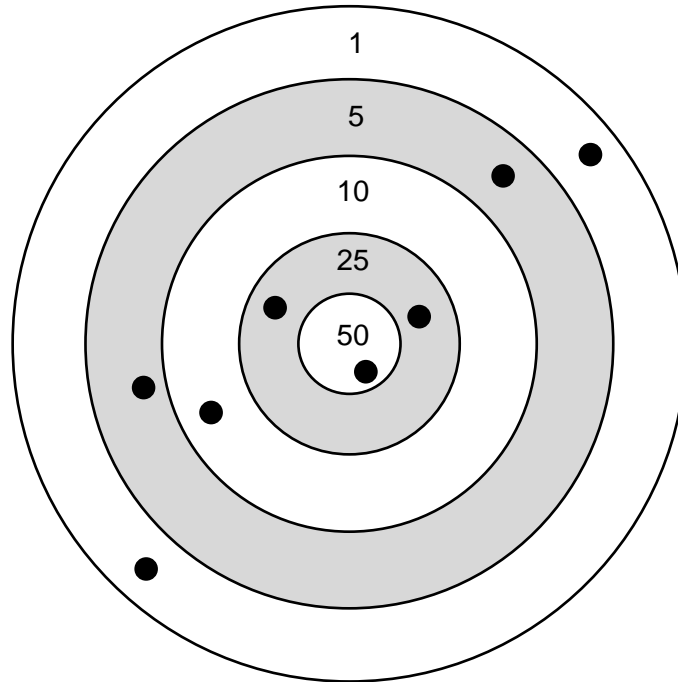
Work out the correct answer.

.....

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Answer (2 marks)

- 6 Anna and Zena both fire four shots at a target.
The dots (●) show where the shots hit the target.



They both score exactly the same total.

One of Zena's shots scored 50.

Work out the scores of Zena's **other three** shots.

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Answer , , (3 marks)

7 Tracey drives 10 miles to work and then 10 miles back home each day. She works 4 days each week.

7 (a) Show that in six weeks she drives 480 miles to work and back.

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(3 marks)

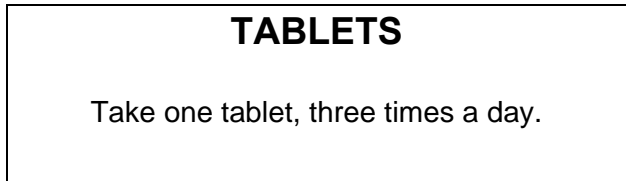
7 (b) Her car travels 40 miles on each gallon of petrol.

How many gallons of petrol does she use over six weeks?

.....
.....

Answer gallons (2 marks)

*8 This is the label on a packet of tablets.



At 7 am Shona takes her first tablet.
At 11 pm she takes her third tablet.

The time she takes her second tablet is **exactly** half way between the other two.

What time is this?

.....
.....
.....

Answer (2 marks)

- 9 The table shows information about **all** the pupils in two classes.

	Boys		Girls	
	School Meal	Packed Lunch	School Meal	Packed Lunch
Class 1	3	9	15	3
Class 2	6	8	3	13

- 9 (a) How many boys are in Class 1?

.....

Answer (1 mark)

- 9 (b) Hannah says, "More girls bring a packed lunch than have a school meal".

Is Hannah correct?

Tick a box.

Yes

No

You **must** show your working.

.....

.....

(2 marks)

- 9 (c) A pupil is chosen at random from Class 1.

What is the probability that the pupil has a school meal?

.....

.....

Answer (2 marks)

- 9 (d) There are 30 pupils in Class 2.

What percentage of these are girls who have a school meal?

.....

.....

Answer% (2 marks)

- *10 200 ml of juice makes 5 drinks.

Anne has 500 ml of juice.

Can she make 13 drinks?

Tick a box.

Yes

No

You **must** show your working.

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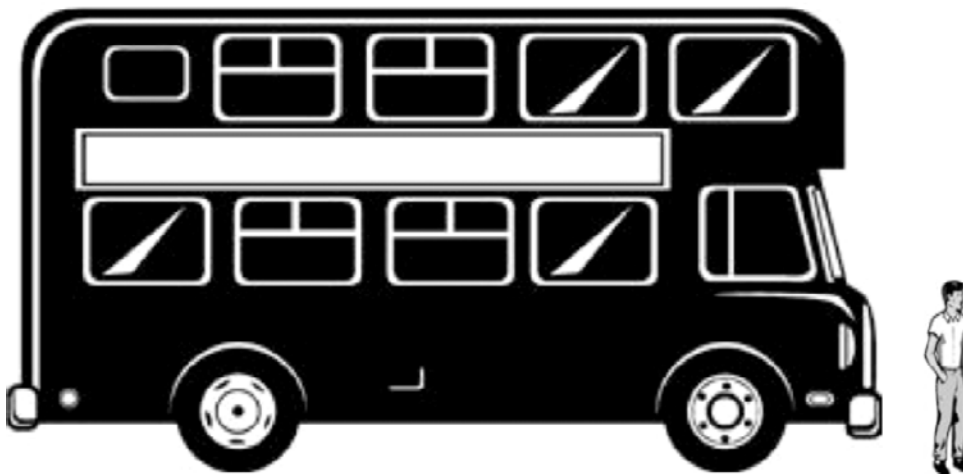
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(3 marks)

- 11 The picture shows a man and a bus.



Estimate the height of the bus.
Give your answer in metres.

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Answer m (3 marks)

12 (a) Solve $12 + x = 10$

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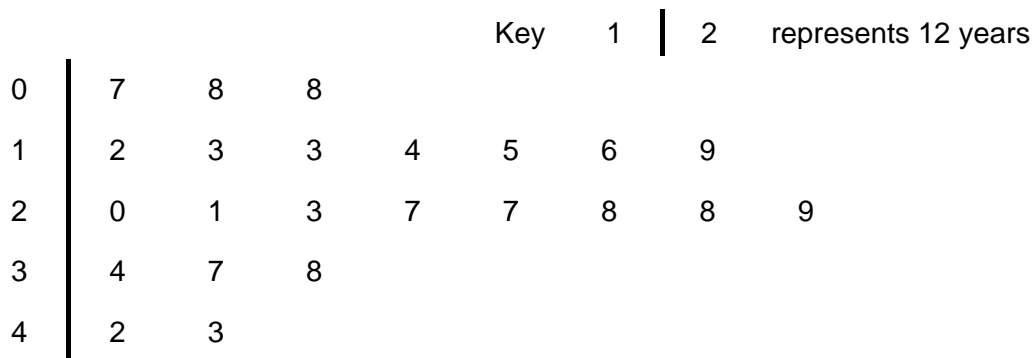
Answer $x =$ (1 mark)

12 (b) Solve $5y = 30$

.....

Answer $y =$ (1 mark)

13 The stem-and-leaf diagram shows the ages of 23 members of a chess club.



13 (a) How many members of the chess club are over 35?

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Answer (1 mark)

13 (b) Work out the range of the ages.

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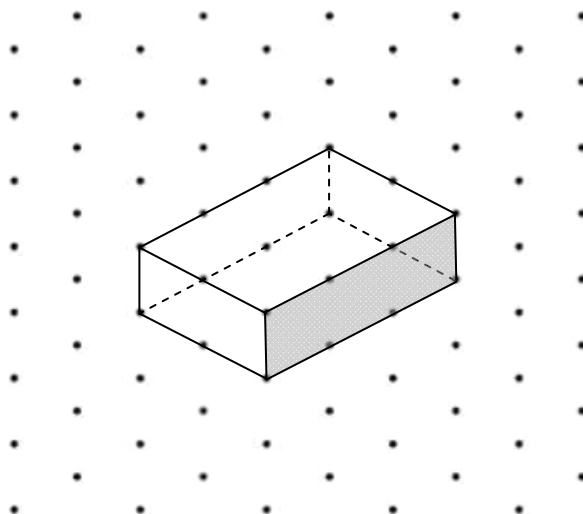
Answeryears (1 mark)

13 (c) Work out the median age.

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Answeryears (1 mark)

14 The diagram shows a cuboid drawn on a centimetre isometric grid.

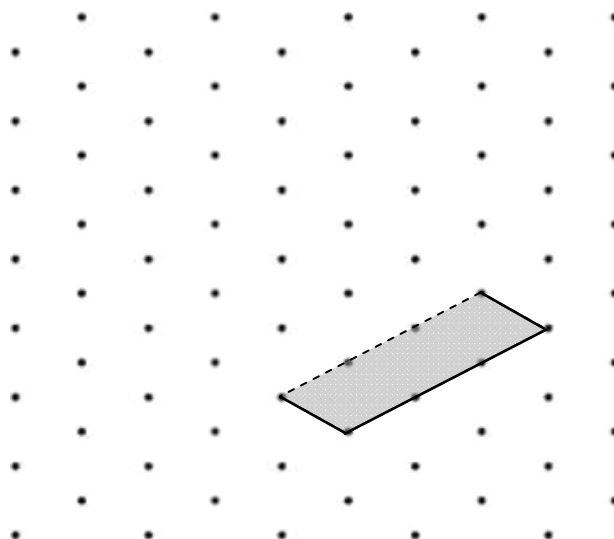


14 (a) What is the volume of the cuboid?

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Answercm³ (1 mark)

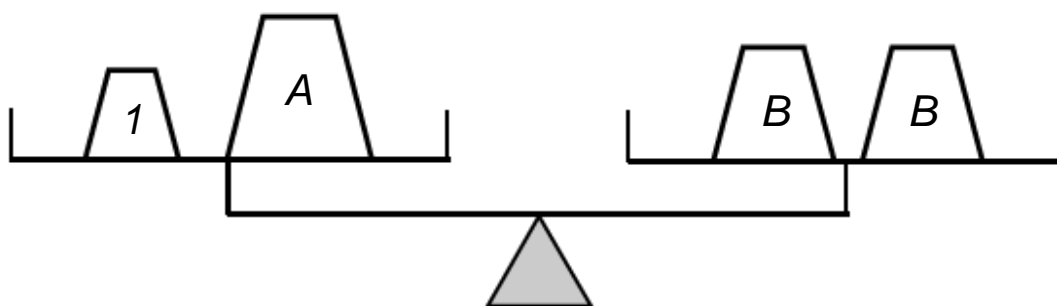
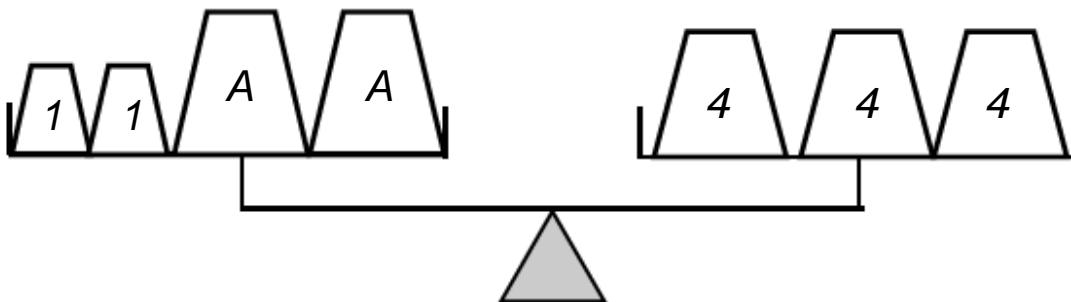
14 (b) The cuboid is tipped over so that it stands on the shaded face.



Complete the drawing of the cuboid.

(2 marks)

- 15 Weights A and B balance with other weights as shown.
All weights are kilograms.



Work out the weights A and B .

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Answer $A = \dots\dots\dots$ kg, $B = \dots\dots\dots$ kg (3 marks)

Turn over for the next question

***16** A raffle has three prizes.

First prize is £40.

Second prize is $\frac{3}{4}$ of the first prize.

Third prize is $\frac{1}{2}$ of the second prize.

Raffle tickets are 50p each.

How many tickets need to be sold to make a profit of £70?

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Answer (5 marks)

17 The average speed of a car is 50 miles per hour (mph).
A journey is 400 kilometres (km).

How long will the journey last?
State any conversions you use.

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Answer hours (3 marks)

18 The mode of five numbers is 3.
The median is 7.
The mean is 6.

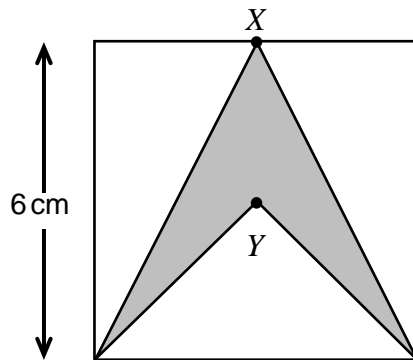
Work out the five numbers.

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Answer,,,, (3 marks)

Turn over for the next question

- 19** An arrowhead is drawn inside a square of side 6 cm.
 X is the midpoint of one side.
 Y is the centre of the square.



Not drawn
accurately

Work out the area of the arrowhead.

.....

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.....

Answer cm^2 (3 marks)

20 (a) Which of these is **not** a factor of 240?
Circle your answer.

3

9

20

30

80

(1 mark)

20 (b) Write down **two** multiples of 240

.....
.....

Answerand (1 mark)

20 (c) Work out the highest common factor (HCF) of 30 and 80

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Answer (1 mark)

20 (d) Work out the least common multiple (LCM) of 30 and 80

.....
.....

Answer (1 mark)

Turn over for the next question

21 Ellie has 3000 songs on her MP3 player.

21 (a) On Monday she listened to 50 songs chosen at random.
15 were rock songs.

Estimate the total number of rock songs on her MP3 player.

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Answer (3 marks)

21 (b) On Tuesday she again listened to 50 songs chosen at random.
10 were rock songs.

Give a reason why the number of rock songs was different each day.

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(1 mark)

4

END OF QUESTIONS