

FOR OFFICIAL USE

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F

KU RE

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Total Marks

**2500/401**

NATIONAL  
QUALIFICATIONS  
2002

THURSDAY, 9 MAY  
9.00 AM - 9.20 AM

**MATHEMATICS**  
**STANDARD GRADE**  
Foundation Level  
Paper 1  
Non-calculator

**Fill in these boxes and read what is printed below.**

Full name of centre

Town

Forename(s)

Surname

Date of birth

Day Month Year

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Scottish candidate number

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Number of seat

- You may NOT use a calculator.**
- Answer as many questions as you can.**
- Write your working and answers in the spaces provided. Additional space is provided at the end of this question-answer book for use if required. If you use this space, write clearly the number of the question involved.**
- Full credit will be given only where the solution contains appropriate working.**
- Before leaving the examination room you must give this book to the invigilator. If you do not, you may lose all the marks for this paper.**



Marks

KU	RE
1	
1	
2	

1. Work out the answers to the following.

(a)  $12.8 + 0.7$

WORKING	
ANSWER	

(b)  $3.65 \times 100$

WORKING	
ANSWER	

(c)  $\frac{1}{5}$  of 85

WORKING	
ANSWER	





Marks

KU	RE

5. (a) Cartons of Fizz orange juice cost 29 pence each.  
Find the cost of 10 cartons.



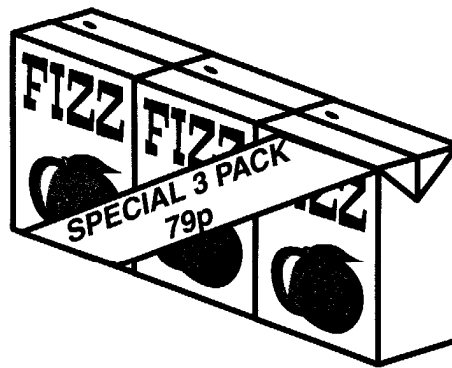
WORKING

ANSWER

£

3

- (b) Fizz is also sold in special packs each containing 3 cartons.  
These special packs cost 79 pence each.  
Find the least amount you must pay for 10 cartons.



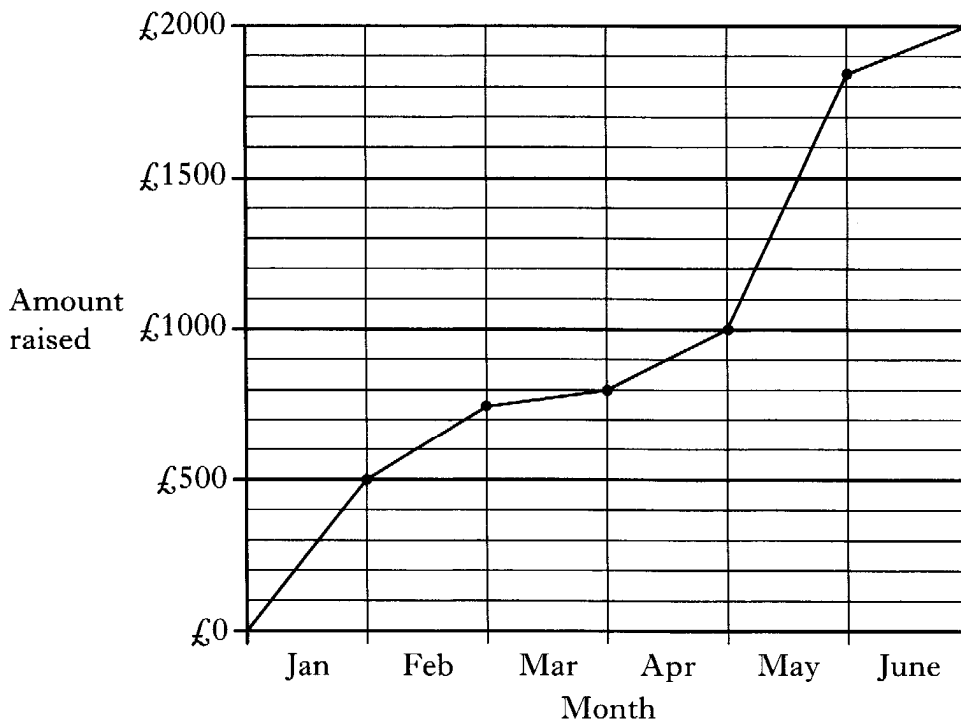
WORKING

ANSWER

£

4

6. Minstrel's Sports Club is raising funds.  
The graph shows the amount raised.



By the end of January £500 was raised.

- (a) How much was raised by the end of February?

ANSWER	£
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1







1. Erin's birthday is 28th August.  
Daniel's birthday is one week later.  
What is the date of Daniel's birthday?

WORKING

ANSWER

Marks

KU RE

2

Marks

KU	RE
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2. These patterns are made from matchsticks.



Pattern 1



Pattern 2



Pattern 3

(a) Complete this table.

Pattern number	1	2	3	4	5	6		11
Number of matchsticks	6	11						

WORKING

(b) Write down a rule for finding the number of matchsticks if you know the pattern number.

RULE

4

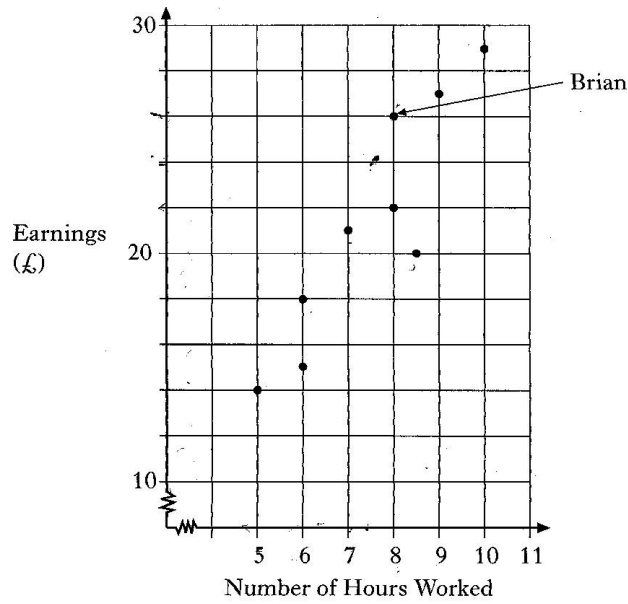
2



Marks

	KU	RE
2		
4		

4. Some students are asked about their part-time jobs.  
The scattergraph shows how many hours they work and how much they earn each week.



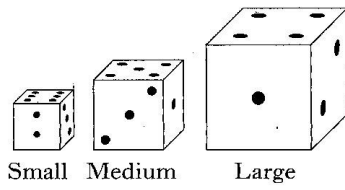
- (a) The arrow points to the dot which represents the number of hours Brian worked and how much he earned.  
Write down how many hours Brian worked and his earnings.

ANSWER	Number of hours worked	
	Earnings	£

- (b) Jade works  $7\frac{1}{2}$  hours a week and is paid £3.20 per hour.  
Mark a dot on the scattergraph to show how many hours Jade worked and her earnings.

WORKING	
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5.



The table below shows some ways of scoring a total of 15 with three different dice.

Small	Medium	Large
6	6	3
6	5	4
5	6	4

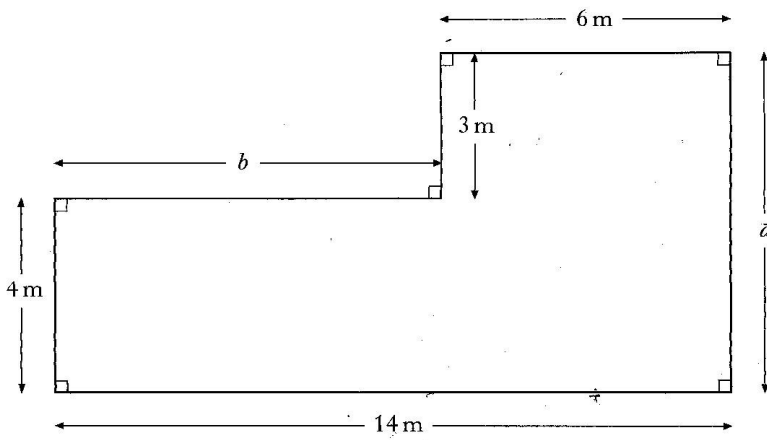
$$6 + 6 + 3 = 15$$

Complete the table to show five other ways of scoring a total of 15 with the three dice.

Marks

KU	RE
3	

6. This is a plan of a room.



(a) Find the lengths of the sides marked  $a$  and  $b$ .

WORKING							
ANSWER	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;"><math>a =</math></td> <td style="padding: 2px;"></td> <td style="width: 10%; padding: 2px;">metres</td> </tr> <tr> <td style="padding: 2px;"><math>b =</math></td> <td style="padding: 2px;"></td> <td style="padding: 2px;">metres</td> </tr> </table>	$a =$		metres	$b =$		metres
$a =$		metres					
$b =$		metres					

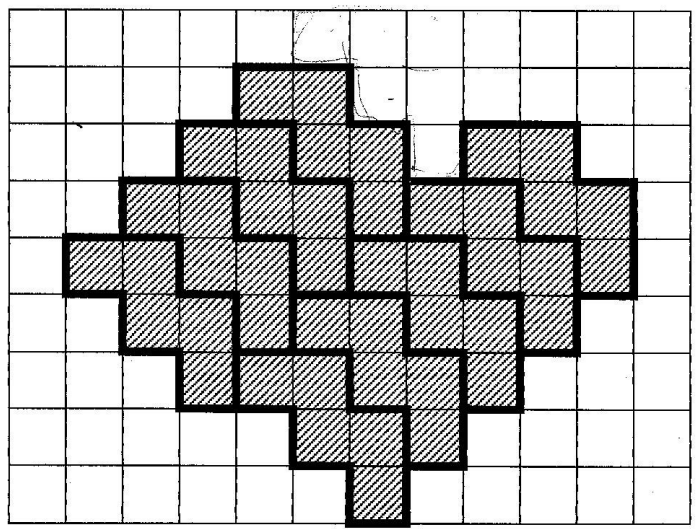
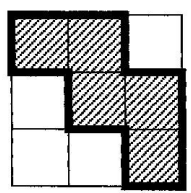
(b) Find the perimeter of the room.

WORKING			
ANSWER	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;"></td> <td style="width: 20%; padding: 2px;">metres</td> </tr> </table>		metres
	metres		

Marks

	KU	RE
3		
2		

7. The pattern below is made with tiles like the one shown here.



Continue the pattern by adding three tiles to the diagram.

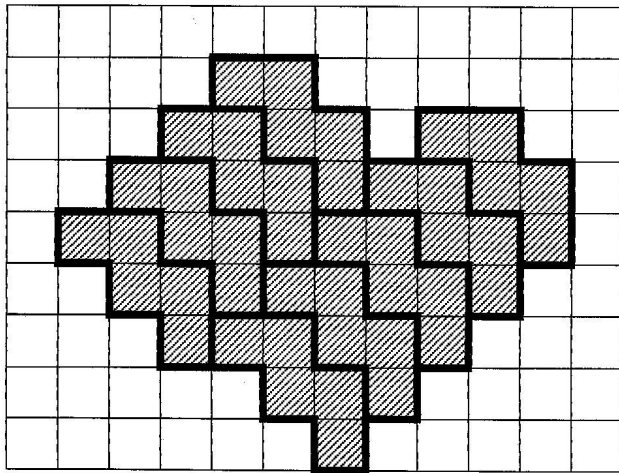
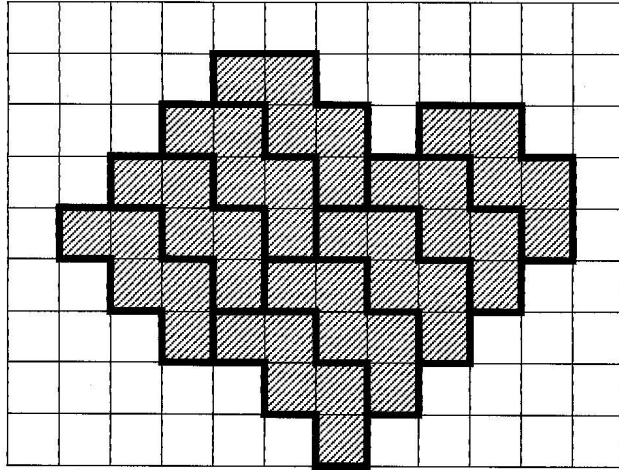
**YOU MAY USE THE EXTRA DIAGRAMS ON THE OPPOSITE PAGE FOR WORKING IF YOU WISH.**

3


Marks

KU	RE
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7. (continued)

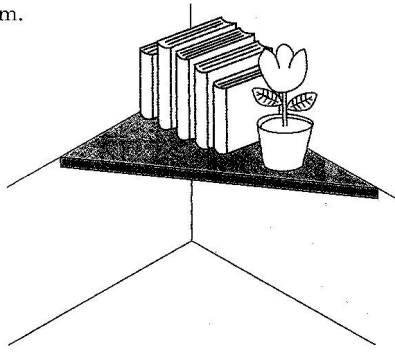




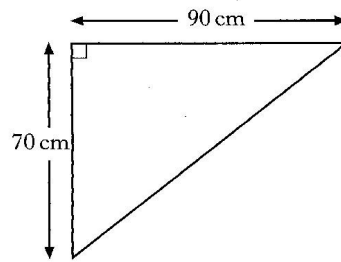
Marks

KU	RE
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8. This shelf is in a corner of a room.



The shelf is in the shape of a right angled triangle as shown.



Find the area of this triangle.

WORKING	
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ANSWER	
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	square centimetres
--	--------------------

3

9. The number of pupils in each class at Maybelle Primary School is listed below.

24 25 27 29 30 30 31

(a) Write down the mode.

ANSWER		pupils
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(b) Find the mean number of pupils in each class.

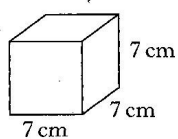
WORKING	
ANSWER	

<i>Marks</i>	KU	RE
1		
4		

Marks

KU	RE

10. (a) A cube has length 7 centimetres  
Find the volume of the cube.



WORKING

ANSWER

**cubic centimetres**

2

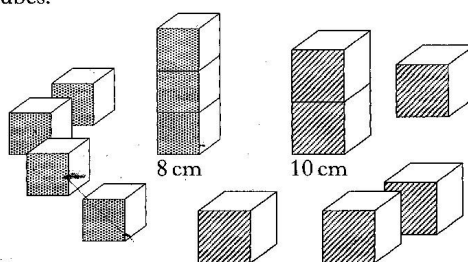
- (b) Peter has some other cubes.

Some have length 8 centimetres and some have length 10 centimetres.

He builds a stack with the 8 centimetre cubes and another stack with the 10 centimetre cubes.

He stops when both stacks are the same height.

How many cubes are in each stack?



WORKING

ANSWER

**8 centimetre cubes**

**10 centimetre cubes**

3

11. Gary is making tea.  
He needs 200 millilitres of water for each cup.  
How many cups of tea can he make from a kettle which holds 1.8 litres of water?

WORKING	
ANSWER	cups

Marks

KU	RE
4	





