

FOR OFFICIAL USE

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F

KU RE

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Total Marks

2500/401

NATIONAL
QUALIFICATIONS
2003

THURSDAY, 8 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	
1	

1. Work out the answers to the following.

(a) $17.9 + 5.2$

WORKING	
ANSWER	

(b) 3.21×7

WORKING	
ANSWER	

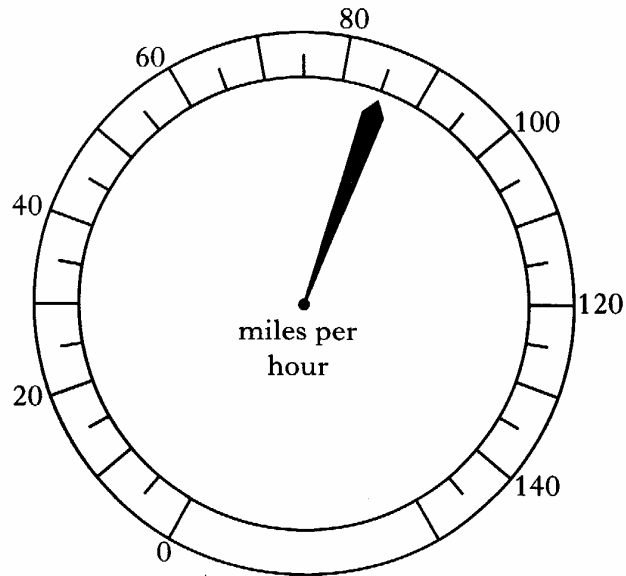
(c) $58.4 + 10$

WORKING	
ANSWER	

Marks

KU RE

4. (a) What speed is shown on this speedometer?



ANSWER		miles per hour
--------	--	-----------------------

1

(b) A train travels for 3 hours at the speed shown on the speedometer above.

What distance does it travel?

WORKING		
ANSWER		miles

2

Marks

	KU	RE
1		
1		
2		

5. The table shows the temperatures in five cities at noon on 1st February.

Paris	Madrid	Montreal	Moscow	New York
4°C	9°C	-6°C	-2°C	0°C

(a) Which city had the lowest temperature?

ANSWER	
--------	--

(b) By 7pm the temperature in Moscow had dropped by 3°C.

What was the temperature in Moscow at 7pm?

WORKING	ANSWER						
	<table border="1"> <tr> <td></td> <td style="text-align: center;">Moscow</td> </tr> <tr> <td style="text-align: center;">Noon</td> <td style="text-align: center;">-2°C</td> </tr> <tr> <td style="text-align: center;">7pm</td> <td style="text-align: center;">°C</td> </tr> </table>		Moscow	Noon	-2°C	7pm	°C
	Moscow						
Noon	-2°C						
7pm	°C						

6. Colin's gross pay is £1980.
His total deductions are £509.
Find Colin's net pay.

WORKING	
ANSWER	£

Marks

	KU	RE
1		
2		
2		

7. This is a number cell.

1st	2nd	3rd	4th
4	3	7	10

- 1st number + 2nd number = 3rd number $4 + 3 = 7$
- 2nd number + 3rd number = 4th number $3 + 7 = 10$

(a) Complete this number cell.

7	11		
---	----	--	--

1

(b) Complete this number cell.

		13	21
--	--	----	----

2

(c) Complete this number cell.

1			19
---	--	--	----

2

YOU MAY USE THE BLANK NUMBER CELLS BELOW FOR WORKING IF YOU WISH.

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Marks

KU RE

8. (a) The Green family paid four electricity bills last year.
The total amount paid was £336.

Electricity Bills

	Amount
Spring bill	£68
Summer bill	£50
Autumn bill	£73
Winter bill	
Total	£336

Work out the amount paid for the winter bill.

WORKING	
ANSWER	£

- (b) Work out the mean amount paid per bill.

WORKING	
ANSWER	£

[END OF QUESTION PAPER]

3

2

FOR OFFICIAL USE

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F

KU RE

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Total Marks

2500/402

NATIONAL
QUALIFICATIONS
2003

THURSDAY, 8 MAY
9.40 AM - 10.20 AM

MATHEMATICS
STANDARD GRADE
Foundation Level
Paper 2

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

--	--	--	--	--	--	--	--	--	--

Number of seat

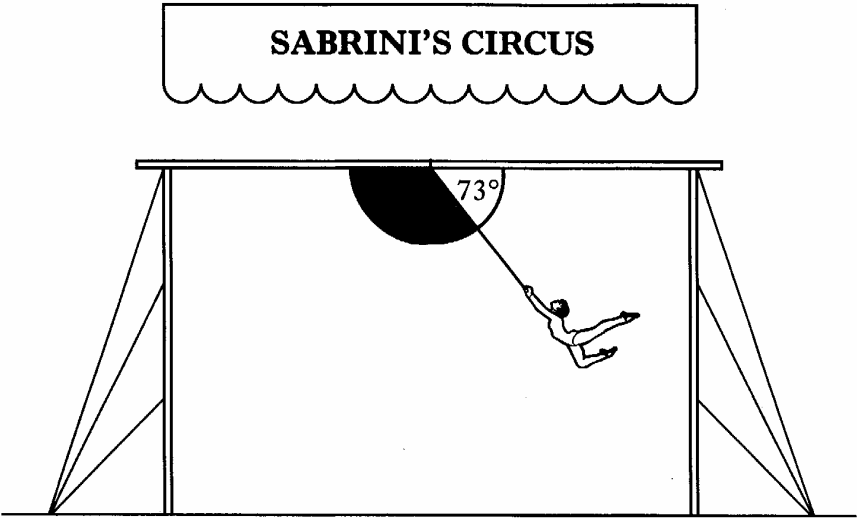
- You may use a calculator.**
- Answer as many questions as you can.**
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Marks

KU RE

1. The wire of an acrobat's swing makes an angle of 73° with the bar above it.



Calculate the size of the shaded angle.

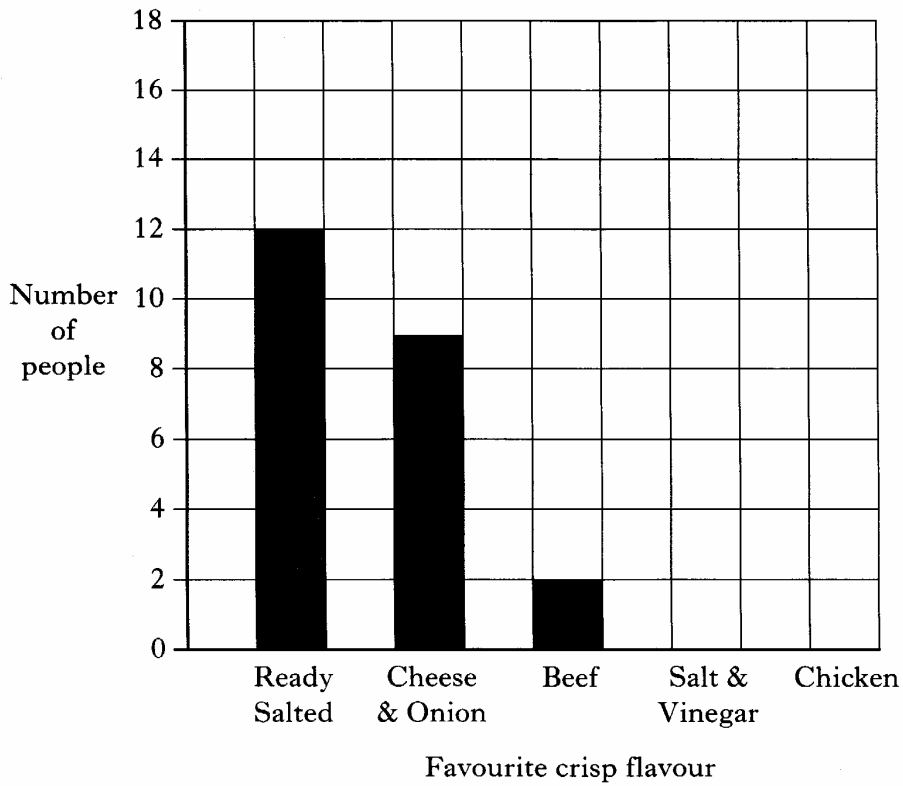
WORKING	
ANSWER	°

2

2. Some people were asked which flavour of crisp was their favourite.
The table shows their answers.

Favourite crisp flavour	Number of people
Ready Salted	12
Cheese & Onion	9
Beef	2
Salt & Vinegar	14
Chicken	5

Use the table to complete the bar graph.



Marks

KU	RE

2

3.



Candle holders are made up from a top, link sections and a base.



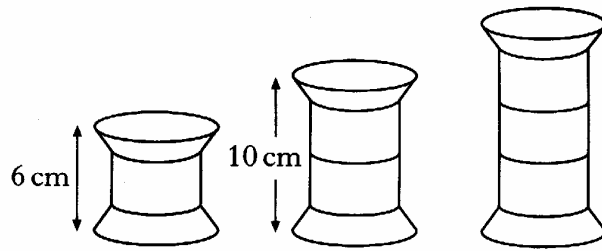
1 cm top



4 cm link section



1 cm base



(a) Complete this table.

Number of link sections	1	2	3	4	5	6		11
Height of candle holder (cm)	6	10						

WORKING

(b) Write down a rule for finding the height of a candle holder if you know the number of link sections.

RULE

4

2

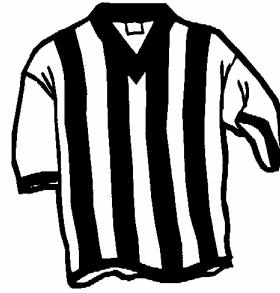
Marks

KU RE

4. A sports team is choosing a new strip.

The strip can have

- a round neck or a V-neck
- long sleeves or short sleeves
- a plain body or a striped body.



The table below shows one possible combination.

Complete the table to show five other possible combinations.

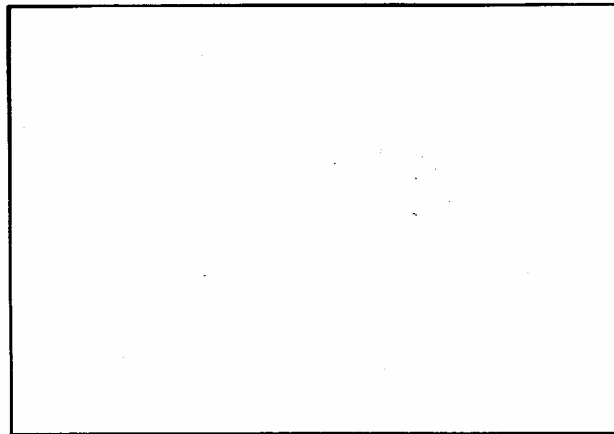
Neck	Sleeves	Body
V	short	striped

3

Marks

	KU	RE
1		■
2		■
3	■	

6. This is a **plan** of a school hall.



(a) Measure the length of the hall **on the plan**.

ANSWER		centimetres
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1

(b) The scale of the plan is **1 centimetre represents 5 metres**.
Calculate the **actual** length of the hall.

WORKING		
ANSWER		metres

2

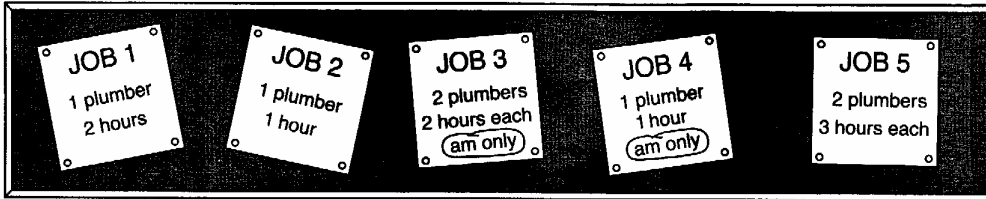
(c) The plan of the hall is a rectangle.
Calculate the **actual** area of the hall.

WORKING		
ANSWER		square metres

3

7. Sam and Jo are plumbers.

The jobs they have to do in one day are shown below.



Complete the table below to show when they should do each job.

	9 am	10 am	11 am	Noon	1 pm	2 pm	3 pm	4 pm	5 pm
Sam	← JOB 3 →			Lunch					
Jo	← JOB 3 →				Lunch				

3

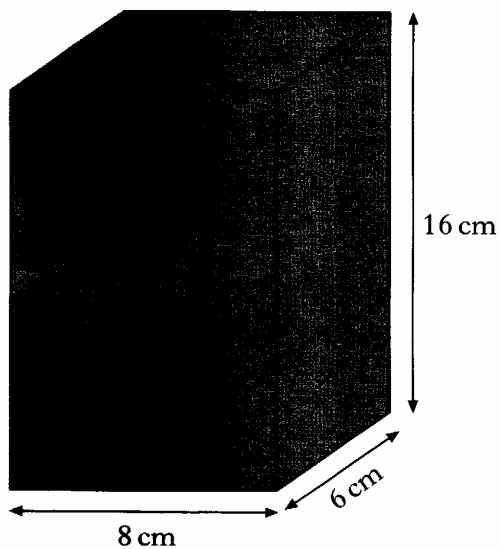
YOU MAY USE THE TABLES BELOW FOR WORKING IF YOU WISH.

	9 am	10 am	11 am	Noon	1 pm	2 pm	3 pm	4 pm	5 pm
Sam	← JOB 3 →			Lunch					
Jo	← JOB 3 →				Lunch				

	9 am	10 am	11 am	Noon	1 pm	2 pm	3 pm	4 pm	5 pm
Sam	← JOB 3 →			Lunch					
Jo	← JOB 3 →				Lunch				

	9 am	10 am	11 am	Noon	1 pm	2 pm	3 pm	4 pm	5 pm
Sam	← JOB 3 →			Lunch					
Jo	← JOB 3 →				Lunch				

8. Find the volume of this cuboid.



WORKING

ANSWER

cubic centimetres

Marks

KU

RE

2

9. (continued)

(b)

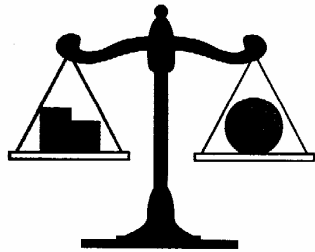


Diagram 1

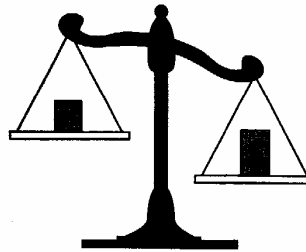


Diagram 2

The scales in diagram 1 are balanced.

Use diagrams 1 and 2 to put parcels A, B and C in order of weight starting with the **heaviest**.

Give reasons for your answer.

WORKING			
ANSWER	Heaviest		Lightest
	Parcel	Parcel	Parcel
REASONS			

3

10.

Louise has £394 in her bank account.

How much interest will she receive after 1 year if the interest rate is 7% per year?

WORKING

ANSWER

£

Marks

KU

RE

2

KU	RE

11. The table shows the cost of using the internet.

Daytime rate (8 am–6 pm Mon–Fri)	3.5p per minute
Cheap rate (all other times)	1p per minute

(a) Jamie used the internet between 4.30 pm and 5.30 pm on Tuesday.
How much did it cost him?

WORKING	
ANSWER	£

4

(b)

INTERNET GOLD CARD
Unlimited use of the internet for
just £14.99 per month

Jamie bought an Internet Gold Card.
During February he used the internet for 30 **hours**, all at the cheap rate.
How much did the Internet Gold Card save him?

WORKING	
ANSWER	

3

Marks

KU RE

12. Freshdent tubes usually contain 240 millilitres of toothpaste.



How much toothpaste is in a tube which has an extra $\frac{1}{3}$ in it?



WORKING

ANSWER

millilitres

3

13. This rule is used to work out the cost of hiring a car.

$$\text{Cost} = \text{£}25 + (\text{number of days} \times \text{£}14.50)$$

(a) Find the cost of hiring a car for 6 days.

WORKING	
ANSWER	£

3

(b) Stuart has £300 to spend on car hire.
He hires a car for as many days as possible.
How many days is this?

WORKING	
ANSWER	days

3

[END OF QUESTION PAPER]