F

KU   RE

Total Marks

2500/401

NATIONAL
QUALIFICATIONS
2001

WEDNESDAY, 16 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   Scottish candidate number   Number of seat

1 **You may NOT use a calculator**.

2 Answer as many questions as you can.

3 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.

4 Full credit will be given only where the solution contains appropriate working.

5 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.

SCOTTISH
QUALIFICATIONS
AUTHORITY

1. Work out the answers to the following.

(a) $17 \cdot 3 - 4 \cdot 9$

WORKING

ANSWER

1

(b) $£1 \cdot 45 \times 8$

WORKING

ANSWER $£$

1

(c) $\frac{1}{6}$ of 258

WORKING

ANSWER

2

2. Find $33\frac{1}{3}\%$ of £480.

WORKING

ANSWER | £

2

3. Steve buys a car for £4950.

When he sells it he makes a profit of £849.

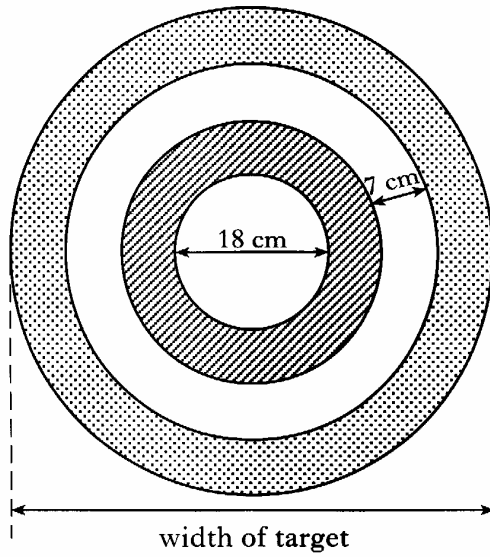Find the selling price of the car.

WORKING

ANSWER | £

2

4. This target consists of a centre circle surrounded by three rings.

The diameter of the centre circle is 18 centimetres.

The width of **each ring** is 7 centimetres.

Find the width of the target.

18 cm

7 cm

width of target

WORKING

ANSWER   **centimetres**

3

5. (*a*) Mr and Mrs Rae and their two children go to see a film at the Regal Cinema.

How much do the tickets cost altogether?

REGAL CINEMA
TICKET PRICES
Adult - £5
Child - £3

WORKING	
ANSWER	£

2

(*b*)

FAMILY PASS
Cost - £20 per family per year

TICKET PRICES (with Family Pass)
Adult - £5
Child - Free

The Rae family decide to buy a Family Pass.

They go to the Regal Cinema five times a year.

How much will the Family Pass save them?

WORKING	
ANSWER	£

4

6. Sally works night shift so she has to sleep during the day.

(*a*) She sets her alarm clock to go off at 1620.

Write this as a 12-hour time.

ANSWER		**pm**

1

(*b*) She goes to bed at 0835.

How long is it until her alarm goes off?

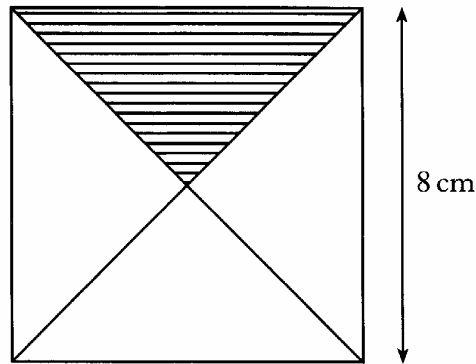| WORKING	

ANSWER	**hours**	**minutes**

2

7. **A square** tile is 8 centimetres long.

8 cm

(*a*) Find the area of the tile.

WORKING

ANSWER | square centimetres

2

(*b*) Calculate the shaded area.

WORKING

ANSWER | square centimetres

3

[END OF QUESTION PAPER]

F

KU | RE

2500/402

Total Marks

| NATIONAL
QUALIFICATIONS
2001 | WEDNESDAY, 16 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
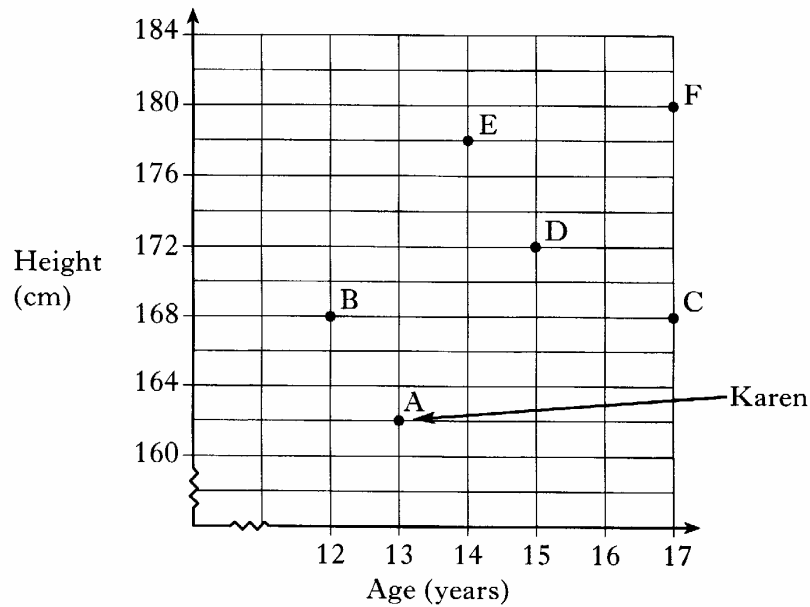
Date of birth
Day Month Year   Scottish candidate number   Number of seat

1   **You may use a calculator.**

2   **Answer as many questions as you can.**

3   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.

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SCOTTISH
QUALIFICATIONS
AUTHORITY

1. The broken line is an axis of symmetry.

Complete the diagram.

4

2. Gurprit earns £11 258 per year.

He is paid weekly.

How much is Gurprit paid per week?

WORKING

| ANSWER | £ |

4

3. Cubes are stacked as shown.

How many cubes are there in the stack?

WORKING

ANSWER | cubes

2

4. The graph shows the ages and heights of a group of pupils.

(a) Dot A represents Karen's age and height.

Write down Karen's age and height.

ANSWER	**Age**	**years**
	Height	**centimetres**

2

(b) Use the clues below to match the pupils with the other dots.

Maria is the same height as Shona.
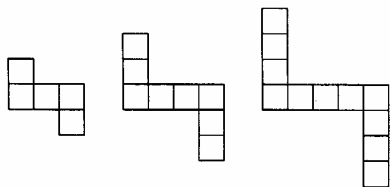Tom and Maria are twins.
Peter is taller than Robert.

WORKING

ANSWER						
NAME	Karen	Maria	Tom	Shona	Peter	Robert
DOT	A					

3

5. These patterns are made with squares.

Pattern 1   Pattern 2   Pattern 3

(*a*)   Complete this table.

Pattern number	1	2	3	4	5	6		11
Number of squares	5	8						

WORKING

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

RULE

4

2

6. A flagpole makes an angle of 62° with a wall.

Calculate the size of the shaded angle.
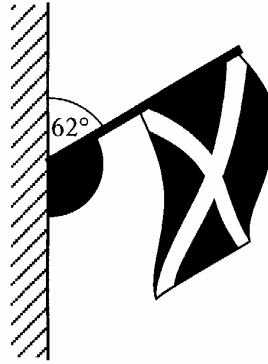
WORKING	
ANSWER	°

2

7. A shop advertises this special offer.

Buy three* items from our
range and get this bag FREE

*No more than 2 items can be the same

Soap	£5
Shampoo	£6
Shower Gel	£7
Deodorant	£9

Irene has £20 to spend. The table below shows one way that she can get the free bag.

ITEM 1	ITEM 2	ITEM 3	TOTAL
Soap	Soap	Shampoo	£16

Complete the table to show five other ways that Irene can get the free bag.

3

8. This is a plan of Roslyn's house and garden.

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

ANSWER	**centimetres**

1

(b) The scale of the plan is **1 centimetre represents 2 metres**.

Find the actual length of the house.

WORKING

ANSWER	**metres**

2

8. **(continued)**

(*c*)   An electrical socket is shown on the plan.

On the lawn, mark X at the point which is furthest from the socket.

(*d*)   Roslyn's electric lawn mower has a 25 metre cable.

When she plugs it into the socket will it reach all parts of the lawn?

Give a reason for your answer.

WORKING

ANSWER (INCLUDING REASON)

9. During a two week period the temperature in Perth is noted each day. These temperatures are shown below.

16 °C   15 °C   14 °C   16 °C   15 °C   16 °C   16 °C

17 °C   17 °C   15 °C   16 °C   17 °C   14 °C   12 °C

(*a*) Complete the frequency table for these temperatures.

Temperature (°C)	Tally	Frequency
12		
13		
14		
15		
16		
17		

3

(*b*) Write down the mode.

ANSWER	°C

1

10. A child's dose of medicine is calculated using this rule.

| Child's Dose = (Adult's Dose × Child's Age) ÷ (Child's Age + 12) |

An adult's dose of cough medicine is 15 millilitres. Calculate the dose for an 8 year old child.

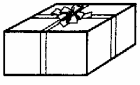WORKING

ANSWER _____ **millilitres**
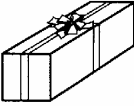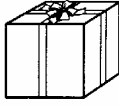
2

11. Ribbon is used to decorate gift boxes.

The total length of ribbon needed to decorate each of the boxes is shown below.

Box	A	B	C	D	E
Length of ribbon	140 cm	75 cm	70 cm	90 cm	120 cm

Anne has 2 metres of red ribbon and 3 metres of yellow ribbon which is enough to decorate all the boxes.

She cuts the ribbon so that she has one length for each box.

Complete the table to show which colour of ribbon is used for each box.

WORKING

ANSWER

Box	Colour of Ribbon
A	
B	
C	
D	
E	

3

YOU MAY USE THE BLANK WORKING BOXES ON THE OPPOSITE PAGE IF YOU WISH.

11. **(continued)**

Box	Colour of Ribbon
A	
B	
C	
D	
E	

Box	Colour of Ribbon
A	
B	
C	
D	
E	

Box	Colour of Ribbon
A	
B	
C	
D	
E	

Box	Colour of Ribbon
A	
B	
C	
D	
E	

12. (a) In a city centre, 12 minutes of parking time cost 20 pence.

How much parking time does 60 pence buy?

CITY CENTRE PARKING

MAXIMUM **2** HOURS

12 minutes cost 20p

WORKING	
ANSWER	**minutes**

3

(b) How much would it cost to park for the maximum time allowed?

WORKING	
ANSWER	£

4

13.

RECIPE FOR **ONE** SPONGE CAKE
375 grams of flour
150 grams of butter
100 grams of sugar
2 large eggs
Vanilla essence

FLOUR

3 kg

(a) A bag of flour weighs 3 kilograms.

How many of these sponge cakes can be made if all the flour is used?

WORKING

ANSWER   cakes

(b) A packet of butter weighs 250 grams.

How many packets must you buy to make 7 sponge cakes?

BUTTER
250g

WORKING

ANSWER   packets

3

4

[END OF QUESTION PAPER]