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.
1. Work out the answers to the following.
   (a) \(2345 + 372\)

   WORKING

   ANSWER

   (b) \(£ 9.32 \times 4\)

   WORKING

   ANSWER £

   (c) \(\frac{1}{5}\) of 305

   WORKING

   ANSWER
2. Frank has drawn this shape on the grid below.
The grid is marked in square centimetres.

What is the area of the shape?

**ANSWER** square centimetres
3. Round £23.25 to the nearest pound.

**ANSWER**

£

4. Work out $33\frac{1}{3}\%$ of £30.

**WORKING**

**ANSWER**

£
5. Nicola’s mobile phone bill has arrived.
Due to a mark on the bill, one of the entries cannot be read.

**TICK-TALK MOBILE**

*Date: 24 April 2009*

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calls and Texts</td>
<td>£13.20</td>
</tr>
<tr>
<td>Value Added Tax</td>
<td>£</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>£15.51</td>
</tr>
</tbody>
</table>

How much did Nicola pay in Value Added Tax?

**WORKING**

**ANSWER** £
6. The pattern below is made with tiles like the one shown here.

Draw three more tiles to continue the pattern.

You may use the extra diagrams on the opposite page for working if you wish.
6. (continued)

Marks

KU  RE
7. (a) Naveed arrives in the classroom for his maths lesson at 1.40 pm. Write this as a 24-hour clock time.

WORKING

ANSWER

(b) During the lesson there is a fire drill. Naveed is out of the classroom from 1.55 pm until 2.08 pm. The maths lesson finishes at 2.35 pm. How many minutes did Naveed spend in the classroom?

WORKING

ANSWER minutes
8. (a) Paul Davidson has applied to join a swimming club. He was born on the 12th August 1996. On his application form he writes his date of birth as 12 08 96. His sister Elaine Davidson also applies to join the club. She was born on the 16th April 1998. Show how Elaine will write her date of birth on her application form.

(b) Paul Davidson is given a membership code based on his name and date of birth. His code is 12PD9608. Write down the membership code for Elaine Davidson.
9. Jack is taller than Barry.
Barry is shorter than Robert.
Robert is shorter than Jack.
Write the name of each boy in the correct box.
10. John is doing his homework and spots a pattern. The answers he gets to the first four questions are shown below.

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1 ÷ 11</td>
<td>= 0.090909</td>
</tr>
<tr>
<td>2. 2 ÷ 11</td>
<td>= 0.181818</td>
</tr>
<tr>
<td>3. 3 ÷ 11</td>
<td>= 0.272727</td>
</tr>
<tr>
<td>4. 4 ÷ 11</td>
<td>= 0.363636</td>
</tr>
</tbody>
</table>

Write down the answer to the fifth question.

5. 5 ÷ 11 = 

[END OF QUESTION PAPER]
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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Six friends go for a meal.
The total bill is £122.64.
They share the bill equally.
How much does each person pay?

WORKING

ANSWER £

Marks KU RE
2. A garage has installed a drinks machine for its customers.

   The *drink* can be **Tea** or **Coffee**
   The *size* can be **Large** or **Small**
   The *colour* can be **Black** or **White**

The table below shows one possible combination.

<table>
<thead>
<tr>
<th>Drink</th>
<th>Size</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tea</td>
<td>Small</td>
<td>White</td>
</tr>
</tbody>
</table>

Complete the table to show five other combinations.
A matchbox is in the shape of a cuboid.
It is 6 centimetres long, 4 centimetres broad and 3 centimetres high.

Calculate the volume of the matchbox.

WORKING

ANSWER cubic centimetres
4. A florist displays vases of flowers using boxes as shown below.

(a) Complete this table.

<table>
<thead>
<tr>
<th>Number of boxes</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of vases</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

RULE
5. This table shows the cost of a room per week in three different hotels.

<table>
<thead>
<tr>
<th>COST PER WEEK</th>
<th>January</th>
<th>February</th>
<th>March</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel Spruce</td>
<td>£230</td>
<td>£240</td>
<td>£255</td>
</tr>
<tr>
<td>Hotel Alpine</td>
<td>£215</td>
<td>£235</td>
<td>£250</td>
</tr>
<tr>
<td>Hotel Nordic</td>
<td>£190</td>
<td>£220</td>
<td>£240</td>
</tr>
</tbody>
</table>

(a) Pierce stays in Hotel Nordic for one week in March. How much does it cost him?

**ANSWER** £

(b) Fiona pays £470 for a **two week** stay in one of these hotels. Which hotel did Fiona stay in **and** in which month?

**WORKING**

**ANSWER** Hotel | Month
6. One of the coldest temperatures recorded in Scotland is shown on the thermometer below.

What temperature does the thermometer show?

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>°C</th>
</tr>
</thead>
</table>

[Turn over]
7. Bellforth Academy has raised money for the victims of an earthquake. The bar graph shows how much was raised by each year group.

(a) Which year group raised the most money?

ANSWER

(b) What was the total amount raised by Bellforth Academy?

WORKING

ANSWER £
8. To donate blood you must:
   - be aged 17 or over
   - weigh more than 8 stones
   - wait at least 16 weeks since your last donation.

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Weight (stones)</th>
<th>Weeks since last donation</th>
</tr>
</thead>
<tbody>
<tr>
<td>John</td>
<td>24</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Paul</td>
<td>32</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Anne</td>
<td>45</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Steven</td>
<td>19</td>
<td>11</td>
<td>17</td>
</tr>
</tbody>
</table>

Which two people could not donate blood?
Give the reason why each person could not donate blood.
Anna needs 83 tiles for her bathroom.
The tiles are only sold in boxes of 10.
Each box of tiles costs £24.
How much will Anna pay for her tiles?

**WORKING**

**ANSWER** £
10. This pie chart shows the different types of staff employed by a company.

(a) What percentage of the staff work in production?

WORKING

ANSWER %

(b) 1200 people work for the company. How many of them work in sales?

WORKING

ANSWER people
11. Donald weighs himself every month for 6 months. The weights (in kilograms) are listed below.

83  81  78  80  78  77

Calculate Donald’s mean weight over the 6 months.

**WORKING**

**ANSWER** kilograms
12. Kitchen Display has designed a glass sign to place outside its shop. The design is based on the letters K and D as shown below.

The design has one large piece of glass and two identical smaller pieces of glass.

Calculate the size of the shaded angle.

WORKING

ANSWER $\text{°}$

_marks_
13. A firework display is being prepared.

For safety, a circular fence is erected as shown on the plan below.

(a) **On the plan**, measure the distance, in centimetres, from the centre of the display to the safety fence.

(b) Find the **actual** distance from the centre of the display to the safety fence.

---

**ANSWER**

<table>
<thead>
<tr>
<th>centimetres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

The scale of the plan is **1 centimetre represents 3 metres**.

**WORKING**

---

**ANSWER**

<table>
<thead>
<tr>
<th>metres</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
</tr>
</tbody>
</table>
14. This is a rule used to convert kilometres to miles.

\[
\text{Number of miles} = 5 \times \text{Number of kilometres} \div 8
\]

Jozef ran a 10 kilometre race.
Calculate how many miles Jozef ran.

**WORKING**

**ANSWER** miles
15. Samantha made a rectangular wall display using her favourite compact discs.

Each compact disc has a radius of 6 centimetres.
The breadth of the display is 36 centimetres.
Calculate the length of the display.

WORKING

<table>
<thead>
<tr>
<th>ANSWER</th>
<th>centimetres</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2
16. To improve her fitness, Louise has been set a target of powerwalking 200 miles in 3 months. She walks
   • 1 mile every day in March
   • 2 miles every day in April
   • 3 miles every day in May.
Did Louise meet her target?
You must give a reason for your answer.