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) $95 - 37$

(b) $29.61 \div 7$

(c) $25\%$ of £120

[WORKING]

[ANSWER £]
2. Anne is buying a house. She has to pay the fees shown below.
   - Surveyor’s fee £130
   - Administration fee £450
   - Lawyer’s fee £550
Calculate the total fees Anne has to pay.

**WORKING**

**ANSWER** £
3. The broken line is an axis of symmetry. Complete the diagram.
4. A jug contains 1250 millilitres of coffee.
Marie pours one fifth of the coffee into her cup.
How many millilitres of coffee will be in her cup?

WORKING

ANSWER

millilitres
5. Two circles are drawn to make a snowman as shown below.

The **diameter** of the body is 12 centimetres.
The **radius** of the head is 3 centimetres.
Calculate the height of the snowman.

**WORKING**

**ANSWER**

height centimetres
6. Jed arrived home from school at 3.45 pm.

(a) Write 3.45 pm as a 24 hour time.

   ANSWER

(b) He started studying for his mathematics exam immediately.

   He studied for 85 minutes.

   When did he finish studying?

   WORKING

   ANSWER
The graph shows the number of cars sold by a garage each year from 2006 to 2010.

(a) How many cars were sold in 2007?

\[ \text{ANSAWER} \]

(b) The number of cars sold in 2011 was double the number of cars sold in 2006.

Complete the graph to show the number of cars sold in 2011.

\[ \text{WORKING} \]

(c) Describe the trend of the graph.

\[ \text{ANSAWER} \]
8. The hand signs for numbers in the American Sign Language are shown below.

A teacher uses the hand signs below to get his class to work out $79 \times 4$.

Write down the working and answer for the hand signs shown below.

\[
\begin{array}{c}
\text{WORKING} \\
79 \\
\times 4 \\
\hline
316 \\
\text{ANSWER} \\
316
\end{array}
\]

\[
\begin{array}{c}
\text{WORKING} \\
\hline
\text{ANSWER}
\end{array}
\]
2500/27/02

NATIONAL QUALIFICATIONS 2012

WEDNESDAY, 2 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.

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. Lorna can type 4 pages of text in 24 minutes. At the same rate, how many minutes will it take Lorna to type 7 pages?

WORKING

ANSWER

minutes
2. At 4 o’clock the hands of a clock make an angle of 120° as shown below.

Calculate the size of the shaded angle.

WORKING

ANSWER °

Marks

KU RE

2
3. Here is a calendar for the month of November.

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>28</td>
<td>29</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) What day is November 15th?

ANSWER

(b) What day is December 11th?

WORKING

ANSWER

[2500/27/02] Page four
Frank did a sponsored walk to raise money for charity.
He was sponsored for £9 per mile.
He walked 16 miles.
How much money did Frank raise for charity?

WORKING

ANSWER £
5. (a) Write the number **6735** in words.

   ANSWER

   The numbers listed can be placed into the grid as shown.

   **Numbers**
   
   
<table>
<thead>
<tr>
<th>56</th>
<th>74</th>
</tr>
</thead>
<tbody>
<tr>
<td>217</td>
<td>736</td>
</tr>
<tr>
<td>1732</td>
<td></td>
</tr>
</tbody>
</table>

   Place the numbers listed below into the grid shown.

   **Numbers**
   
<table>
<thead>
<tr>
<th>58</th>
<th>63</th>
</tr>
</thead>
<tbody>
<tr>
<td>321</td>
<td>571</td>
</tr>
<tr>
<td>5161</td>
<td></td>
</tr>
</tbody>
</table>

   You may use the spare grids.
6. The population of Glasgow is 580,000.
5% of the population are children below school age.
Calculate how many children are below school age.

WORKING

ANSWER children
The Party Company uses balloons to make decorations in different sizes. Some of the decoration sizes are shown below.

(a) Complete this table.

<table>
<thead>
<tr>
<th>Decoration size</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 balloons</td>
<td>4</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WORKING

(b) Write down a rule for finding the number of balloons if you know the decoration size.

RULE
8. Some 3D shapes are shown below.

Cube

Pyramid

Cuboid

This is the net for one of these 3D shapes.

Which 3D shape has this net?

ANSWER

[Turn over]
9. The plan below shows some landmarks in the town centre. The theatre is at position (1, 4).

\[(a)\] Write down the position of the cathedral.

\[\text{ANSWER } (\ ,\ )\]

\[(b)\] The theatre and the cathedral are the opposite corners of a rectangle. Mark two crosses on the grid to show the other two corners of the rectangle.
10. The same mobile phone is sold in five different shops for the prices shown below.

£70  £77  £85  £93  £110

Calculate the mean price of the mobile phone.

WORKING

ANSWER £
When John started work, his company gave him an employee number.
It was 08 / 367.
This indicated that he started as an employee in the year 2008 and he was the 367th person employed by the company.
When Sidra joined the company, she was given an employee number of 10 / 528.

(a) In which year did Sidra join the company?

Answer

(b) Peter was the next person employed by the company.
He started one year after Sidra.
What was Peter’s employee number?

Working

Answer
12. The top of a table tennis table is in the shape of a rectangle. The table has a breadth of 150 centimetres.

(a) Write the breadth in metres.

WORKING

| ANSWER | metres |

(b) The table has a length of 2.7 metres. Calculate the area of the top of the table in square metres.

WORKING

| ANSWER | square metres |

2

2
13. Aileigh has the following coins in her purse.

One way of making a total of 30 pence using the coins in her purse is shown in the table below.

Complete the table to show 5 other ways that Aileigh can make a total of 30 pence using the coins in her purse.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
One December night, the temperatures in four cities were recorded. The results are shown on the map below.

Which city was warmest?

ANSWER

Glasgow
15. Boxes labelled A, B, C and D are placed on the scales as shown.

The boxes are then placed in order from **lightest** to **heaviest**. Label the boxes.

![Diagram showing the boxes on scales]

**Lightest** ← → **Heaviest**

**WORKING**
16. The formula below is used to change measurements in inches to measurements in centimetres.

\[ \text{Measurement in centimetres} = 254 \times \text{Measurement in inches} \div 100 \]

Use the formula to change a measurement of 70 inches to centimetres.

**WORKING**

**ANSWER** centimetres
17. (a) A bookseller buys 200 books for £4·20 each. How much did the books cost him altogether?

WORKING

ANSWER £

(b) He sells 120 of the books for £5·50 each and the remaining books for £3·50 each. Did he make a profit or a loss?

You must give a reason for your answer.

WORKING

ANSWER (WITH REASON)
ADDITIONAL SPACE FOR ANSWERS