**Instructions to Candidates**

- Answer all questions.
- This paper carries a total of 25 marks.
- Calculators and protractors are NOT ALLOWED.
1. Work out:
   a) $525 + 475 = \underline{1000}$
   b) $87 - 24 = \underline{63}$
   c) $136 \times 6 = \underline{816}$
   d) $44 \times 10 = \underline{440}$
   e) $780 \div 10 = \underline{78}$

   (5 marks)

2. Underline the correct answer.
   a) I need (a ruler, a protractor, scales) to measure an angle.
   b) Angles are measured in (degrees, centimetres, grams).
   c) One whole turn has (100°, 180°, 360°).

   (3 marks)

3. I go shopping and buy the following objects. How much do I spend in all?

<table>
<thead>
<tr>
<th>Working</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 chocolates at €0.65 each</td>
<td></td>
</tr>
<tr>
<td>1 packet of biscuits at €1.20</td>
<td></td>
</tr>
<tr>
<td>3 buns at €0.45 each</td>
<td></td>
</tr>
</tbody>
</table>

   TOTAL

   (3 marks)
4. a) Divide 20 beads **equally** into 4 bags. How many beads does each bag have?

Answer: ______________

b) Underline the correct answer:
The above answer is 50% 40% 25% of 20.

(3 marks)

5. A man has an iron bar 1 metre long. He cuts 20 cm of it.

a) How long is the remaining part?

Answer: ___________cm

b) The man cuts another 20 cm from the remaining part. How long is the remaining part now?

Answer: ___________cm

(4 marks)
6. What is the value of: \(2x + 3y\) when \(x = 4\) and \(y = 3\)?

Answer: ______________

(2 marks)

7. Work out:
   a) \((3 \times 10) + 7 = \) ______________
   b) \(8 - (6 \div 2) = \) ______________

(4 marks)

8. The area of the rectangle ABCD is 24 cm\(^2\).

What is the area of the triangle ACD?

Answer: ______________ cm\(^2\)

(1 mark)
DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION  
Department for Curriculum Management and eLearning  
Educational Assessment Unit  
Annual Examinations for Secondary Schools 2013

FORM 1 MATHEMATICS  
Main Paper  
TIME: 1h 30min

| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | Total | Non Calc | Global Mark |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|-----|---------|-----------|
| Mark     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |     |         |           |

DO NOT WRITE ABOVE THIS LINE

Name: _____________________________________  
Class: _______________

CALCULATORS ARE ALLOWED BUT ALL NECESSARY WORKING MUST BE SHOWN.  
ANSWER ALL QUESTIONS.

1.  
   a) What is the value of the underlined digit?
      
      (i) 2022 ____________________________  
      
      (ii) 2022 ____________________________  
      
   b) Write in figures: Ninety eight.  
      
      ____________________________  
      
   c) Put these numbers in order, smallest first:  
      
      342, 324, 243, 423.  
      
      ____________________________

(5 marks)
2. a) A group of friends likes to go to sports activities.

4 friends go for football,
6 friends go for swimming,
4 friends go for gymnastics and
2 friends go for athletics.

Complete the frequency table below, putting the number of friends and the right symbol near each sports activity:

The symbol 😊 represents two children.

The first one is done for you.

<table>
<thead>
<tr>
<th>SPORTS</th>
<th>NUMBER OF FRIENDS</th>
<th>SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football</td>
<td>4</td>
<td>😊😊</td>
</tr>
<tr>
<td>Swimming</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gymnastics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athletics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b) Complete:

The mode is _____________________.

(5 marks)
3. Use the Number Square to write:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<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>
</tr>
</tbody>
</table>

a) the **multiples** of 5 in the square: _____, _____, _____, _____, _____.

b) the **square** of the number 5: ____________

c) the **prime** numbers less than 12: _____, _____, _____, _____, _____.

d) five **odd** numbers: _____, _____, _____, _____, _____.

e) four **factors** of 20: _____, _____, _____, _____.

(8 marks)
4. Plot the following points and join them.

\[(1,4) \rightarrow (4,4) \rightarrow (3,2) \rightarrow (2,2) \rightarrow (1,4)\]
5. 

a) The watermelon weighs ____________ kilograms.

b) Place these numbers on the number line. The first one is done for you.

2.2, 2.6, 3.8, 3.4

\[
\begin{align*}
2.2 & \quad 2 \quad 3 \quad 4 \\
0 & \quad 1 \quad 2 \quad 3
\end{align*}
\]


c) Write the above numbers in order, largest first.

____________________________

(6 marks)
6. a) Shade $\frac{1}{4}$ of each square in a different way.

b) Complete $\frac{1}{4} = \square$

c) Complete: $25\% = \square$

(4 marks)

7. a) Fill in:

(i) 5 metres are equal to ________ centimetres.

(ii) 8000 grams make ________ kilograms.

(iii) 9000 millilitres make ________ litres.

b) Write the time:

(i) \[\boxed{07:30}\]

(ii) ________ past ________

(5 marks)
8. a) Use your ruler and set square to draw exactly the rectangle in this sketch.

![Rectangle Diagram]

b) A map of a small island has a scale of 1 cm to 1.5 km.
   A is 5 cm away from B and C is 3 cm away from A.

   Work out the actual distance of
   (i) A from B.

   Answer: __________________

   (ii) C from A.

   Answer: __________________

   (8 marks)
9.   a) Complete this table:

<table>
<thead>
<tr>
<th>Number</th>
<th>To the nearest 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

b) Use the rounding of numbers from the table and give a rough estimate of:

\[
\frac{89 \times 41}{55}
\]

Answer: ________________

(5 marks)

10.  a) Continue these patterns.

   (i) 5, 8, 11, _____, _____, _____.

   (ii) ●, ●●, ●●●, ____________, ____________

b)  (i) If I input the number 12 what is the output?

   (ii) What is happening to the input in this number machine?

   ______________________________________________________

   (5 marks)
11. a) Look at this set of shapes:

(i) How many circles are there? Answer ______________
(ii) How many quadrilaterals are there? Answer ______________
(iii) How many triangles are there? Answer ______________
(iv) A triangle with all sides equal is called (isosceles, equilateral, scalene).
(v) A square has all its sides (curved, long, equal).

b) Draw a circle with a radius of 4 cm. Label the centre and the radius. 

(7 marks)
12. This chart shows the pet each student has. Each student has one pet only.

<table>
<thead>
<tr>
<th>Fish</th>
<th>Cat</th>
<th>Dog</th>
<th>Bird</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Chart showing pets with icons and students symbols]

- a) How many students have a cat? Answer _____________
- b) How many students are there in all? Answer _____________
- c) Which is the most common pet? Answer _____________

(3 marks)

13. Write **Certain** or **Impossible** near each statement.

- a) A sister is a girl. Answer __________________________
- b) We go to Valletta by aeroplane. Answer __________________________
- c) We play football with a ball. Answer __________________________

(3 marks)
14. Place these numbers on the number line. The first one is done for you.

\[ 2, \quad 4, \quad -1, \quad -3 \]

![Number Line Diagram]

(3 marks)

15. Use this conversion graph to change 3 cm to millimetres.

Use this conversion graph to change 3 cm to millimetres.

Answer: \( 3 \text{ cm} = \underline{\text{\_\_\_\_\_\_\_}} \text{mm} \)

(2 marks)
16. a) Work out the **perimeter** of this shape.

![Diagram of a shape with dimensions: 2 cm, 2.5 cm, 5 cm, 4 cm, 6 cm, 2.5 cm]

Answer ______________ cm

b) The solid shape below is made up of small cubes of side 1 cm.
What is the **volume** of this shape?

![Diagram of a solid shape made up of small cubes]

Answer ______________ cm$^3$

(3 marks)