FORM 5 MATHEMATICS SCHEME D TIME: 30 minutes
Non Calculator Paper

Name: ___________________________________ Class: __________

Question 1 2 3 4 5 6 7 8 9 10 Total
Mark

Instructions to Candidates

- Answer ALL questions.
- This paper carries a total of 20 marks.
- Calculators and protractors are not allowed.
1. a) Write in **figures**:  
Thirty five thousand, seven hundred and ninety-one  
__________________  
b) Write the **next term**:  
12, 15, 19, 24, 30, ____  
__________________  
(2 marks)

2. **Match** correctly as in the example.  
   a) **Double** 14  
      [25]  
   b) A **square** number  
      [26]  
   c) A **prime** number  
      [27]  
   d) A **cube** number  
      [28]  
   e) A **multiple** of 13  
      [29]  
   ____________________  
(4 marks)

3. a) Arrange in order **smallest first**:  
38.09  38.9  3.809  
______  _______  _______  
b) Work out:  
(3.5 + 3.5) \times 2 = ________  
__________________  
(3 marks)

4. Fill in:  
a) 3921 cm = ________ m  
b) 3.6 kg = ________ g  
__________________  
(2 marks)
5. Give a **rough estimate** for $78 \times 18$.

6. **Complete** the function machine.

   ![Function Machine Diagram]

   (2 marks)

7. Work out the **value of c**.

   ![Angle Diagram]

   (1 mark)

8. Each cube in the figure is 1 cm$^3$.
   Find the **volume** of the solid.

   ________ cm$^3$

   (1 mark)
9. A bus can carry a total of 45 passengers. Only \( \frac{2}{5} \) of the bus is full. How many passengers are on the bus?

10. There are 493 students in a school. Each class is made up of 29 students. How many classes are there in the school?
Name ________________________________  Class __________

- Answer all questions.
- This paper carries 80 marks.
- Calculators and mathematical instruments are allowed but all necessary working must be shown.

1. a) Jody bought the following items from "Acqua Super Store".
   Work out how much Jody has to pay.

   €______________

   b) Jody is paying by cheque. Fill in the cheque for her.

   "Central Bank of Gozo"

   Pay __________________________________________ or order

   __________________________________________

   __________________________________________

   €

   "Jody Attard"

   000814 88 0561 1035752330081

   (4 marks)
2. The calculator shows the result of a calculation.

   a) Write the result
      i) correct to 1 d.p. 
      ii) correct to the nearest 10.

   b) The value of 5 in the result is 

   c) 8531.164 in standard form is 

   (4 marks)

3. One square in the diagram is chosen at random.
   Work out the probability of choosing:
   a) a grey square. 
   b) a black square. 
   c) a white square. 

   (4 marks)

4. a) Use your protractor to measure the angle marked $f$.

   $f = \underline{\quad\quad}$

   b) Triangle FGH is isosceles.
      Without using your protractor, work out the values of angles $h$ and $k$.

   $h = \underline{\quad\quad}$, $k = \underline{\quad\quad}$

   (4 marks)
5. The table and the graph show the number of soft drinks sold in one week at a school Tuck Shop.

<table>
<thead>
<tr>
<th>Day</th>
<th>Soft Drinks sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>300</td>
</tr>
<tr>
<td>Tuesday</td>
<td>250</td>
</tr>
<tr>
<td>Wednesday</td>
<td>150</td>
</tr>
<tr>
<td>Thursday</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>350</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1350</strong></td>
</tr>
</tbody>
</table>

Sales of Soft Drinks at the Tuck Shop

a) Complete the **table**.

b) Complete the **bar graph**.

c) Fill in:
The two days with an **equal number of sales** are ____________ and ______________.

d) What **fraction** of the soft drinks sold during the whole week were sold on **Wednesday**? Give your answer in its simplest form.

6. a) **Plot** the following points on the graph:
   \((-2, -6)\) \((1, 3)\) \((2, 6)\) \((3, 9)\)

b) Use pencil and ruler to **join the points**.

c) Complete the straight line **equation**:

   \[ y = ____ x \]

   \((5\ \text{marks})\)

d) Use the graph to fill in:

   i) When \(x = 0\), \(y = _____\)

   ii) When \(y = -3\), \(x = _____\).

   \((9\ \text{marks})\)
7. The diagram shows a plan of a village.

![Diagram of a village plan with compass directions]

a) Use **compass directions** to fill in (the first one is done for you).

i) The Garden is **North** of Home.

ii) The Pharmacy is __________ of the Market.

iii) The Library is __________ of the Cinema.

b) i) Louis is at Home. He walks **500 m west** and **500 m south**.

   He is now at the ________________________________.

ii) Judith is at the Market. She walks **1000 m south** and **1000 m east**.

   She is now at the ________________________________.

(6 marks)

8. In 5 games a basketball team scored the following points:

   91  76  91  88  64

Work out:

a) the **mode**

   __________

b) the **median**

   __________

c) the **mean**

   __________

(6 marks)
9. a) Change i) 16:37 into 12-hour time __________
   ii) 5.45 a.m. into 24-hour time __________

   b) Look at the calendar for February 2010.

<p>| FEBRUARY 2010 |</p>
<table>
<thead>
<tr>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
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<td>28</td>
</tr>
</tbody>
</table>

   Use the calendar to answer these questions:
   i) Is February 2010 a leap year? __________ (Yes/No)
   ii) How many weeks are there in February 2010? __________
   iii) What day is 31st January 2010? __________

   (6 marks)

10. a) Draw a circle centre O, having a radius 3.5 cm.
   In the circle construct and label a regular hexagon ABCDEF to touch the circumference.
   Join AO and OB.

   ![Diagram of a circle with a regular hexagon inside]

   b) Fill in:
   i) Triangle OAB is ________________ .
      (right-angled, scalene, isosceles, equilateral)
   ii) The hexagon ABCDEF has ________ lines of symmetry.

   (7 marks)
11.a) Use the grid.
   i) Shape B is a **translation** of shape A **5 units right** and **6 units up**.
      Draw and label shape B.

   ![Grid with triangle A](image)

   ii) Shape C is a **reflection** of shape B in the **y-axis**.
      Draw and label shape C.

b) Draw an **enlargement** with a **scale factor 3** of shape X.

   ![Grid with rectangle X](image)

   (7 marks)
12. a) Simplify:
\[8x + 3y - 5x - 5y\]

b) If \(a = 3\) and \(b = -2\) find the value of \(9a + 5b\)

c) Look at the diagram.
All the boxes have the same weight \(x\) kg.
Find the weight of one box.

(9 marks)
13. a) The Shop “Sports Mania” is selling hockey shirts.
   16 hockey shirts cost €732.
   Find:  
   i) the cost of 1 hockey shirt.

   € ____________

   ii) the cost of 12 hockey shirts.

   € ____________

b) On the internet 12 such hockey shirts cost US $783, including shipment.
   The rate of exchange is €1 = US $1.45.
   How much, in euro, do I have to pay if I buy 12 shirts over the internet?

   € ____________

c) Fill in:
   It is better to buy the shirts from __________________________________
   (Sports Mania, Internet)
   because I save €______________.