FORM 2 MATHEMATICS SCHEME D TIME: 30 minutes
Non Calculator Paper

Name: ________________________________ Class: _______________

<table>
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<th>Question</th>
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<th>7</th>
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<tr>
<td>Mark</td>
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Instructions to Candidates

- Answer ALL questions.
- This paper carries a total of 25 marks.
- Calculators and protractors are NOT ALLOWED.
1. Evaluate:  
   a) \(136.182 \times 100 = \) ____________________  

   b) \(58 \div 2 = \) ____________________  

   (2 marks)

2. John has 26 sweets.  
   He eats 8 sweets.  
   How many sweets has he now?  

   ___________ sweets  

   (2 marks)

3. This thermometer shows the temperature.  
   Fill in the blanks using these numbers.  

   °C  
   0°C  20°C  -10°C  35°C  

   ___________  ___________  ___________  ___________  

   (3 marks)
4. Fill in the missing numbers:

a) \[ 5 + \boxed{5} = 10 \]

b) \[ 13 + \boxed{7} = 20 \]

c) \[ \boxed{20} + 80 = 100 \]

(3 marks)

5. This fuel tank holds 40 litres of petrol when full.

a) What fraction of the tank is full? Circle the correct fraction.

\[
\left( \frac{1}{3}, \frac{1}{4}, \frac{1}{2} \right)
\]

b) How many litres of petrol are there in the tank?

\[ \boxed{20} \text{ litres} \]

(3 marks)

6. Mark the following as TRUE or FALSE.

a) 84 is an EVEN number

b) 100 – 40 is less than 55

c) 50% > \( \frac{4}{8} \)

(3 marks)
7. A recipe for 2 persons uses 225 g of flour.

A recipe for 4 persons uses ______ g of flour.

(2 marks)

8. Work out a) \((2 + 3) \times (7 - 4)\) = ______________________________

b) \(18 - (2 \times 4)\) = ______________________________

(4 marks)

9. A pizza is divided into 8 pieces.

a) Jake eats \(\frac{3}{8}\) of the pizza.

Shade the number of pieces that Jake eats.

b) Jake eats another \(\frac{1}{8}\) of the pizza.

What fraction of the pizza does he eat in all?
Give your answer in its simplest form:

\[ \frac{3}{8} + \frac{1}{8} = \]

(3 marks)
1. Fill in the blanks using the following words:

   sixty   thousand   six

     $8665 = \text{Eight } \underline{\hphantom{0}} \underline{\hphantom{0}} \underline{\hphantom{0}} \underline{\hphantom{0}} \text{ hundred and } \underline{\hphantom{0}} -\text{five}$  

     (2 marks)

2. The LOGO turtle is facing North.
   Luke types \textbf{RT90}.
   Which direction will the turtle now face?

   __________________

     (1 mark)
3. Luke shades $\frac{3}{5}$ of Shape 1.

a) How many squares does he shade to shade $\frac{3}{5}$ of Shape 2?

$squares$

b) Fill in the blanks $\frac{3}{5} = \boxed{15}$

(2 marks)

4. Fill in the missing numbers in the following number machines.

a) $6 \rightarrow +3 \rightarrow \times2 \rightarrow$

b) $\rightarrow -8 \rightarrow 25$

(4 marks)

5. a) Draw the next two shapes.

b) Complete the table of the numbers of squares in each shape:

<table>
<thead>
<tr>
<th>Shape Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Squares</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(4 marks)
6. Emma buys these objects from the shop.

€4.85  €1.36  €1.52

a) Put these prices in order, smallest first.

€ _______  € _______  € _______

b) Round each price correct to the nearest €.

€ _______  € _______  € _______

c) How much does Emma spend at the shop?

€ _______

d) Emma has €10. What change does she get?

€ _______

(9 marks)
7. The letters of the word **CHOCOLATE** are put in a bag.

![CHOCOLATE letters]

Alan picks a letter at random.

On the probability scale, mark with a cross × the probability that Alan chooses the letter **B**.

![Probability scale with cross at 4/3]

(2 marks)

8. Julie is on the **3rd floor**.

She wants to go down **4** floors.

Shade the button of the lift that she presses.

![Buttons shaded at 2]

(2 marks)

9. Fill in the blanks with < or > or =.

a) 75% discount □ □ 1/2 price sale

b) 115 cm □ □ 1.15 m

c) 3 × 40c □ €1.30

(5 marks)
10. a) Match the correct word to each drawing. The first one is done for you.

b) Use your protractor and measure the obtuse angle. Finish the sentence.

The obtuse angle is \( \underline{\hspace{2cm}} \)°.

(4 marks)

11. During a sale a jacket is sold at a discount of 50%. The jacket costs €54.

a) How much do I save when I buy the jacket?

\( \underline{\hspace{2cm}} \) €

b) Fill the price tag with the new sale price.

(3 marks)
12. a) Draw the hands on the clock to show the time when the sun rises.

\[ \begin{array}{c}
11 & 12 \\
10 & 9 \\
8 & 7 \\
6 & 5 \\
4 & 3 \\
2 & 1 \\
\end{array} \]

b) Write the sunset time in 24-hour clock. \[ \underline{20:15} \] (3 marks)

13. a) The year 2012 is a LEAP YEAR.

(i) In 2012 the month of February has _______ days.

(ii) A leap year happens every 4 years.

Work out the next leap years.

2012, 2016, ________, ________.

b) These are the Expiry dates on 3 packets of biscuits.

Shade the packet that must be used first.

\begin{array}{ccc}
\text{BEST BEFORE} & \text{BEST BEFORE} & \text{BEST BEFORE} \\
12 / 09 / 12 & 24 / 02 / 12 & 02 / 11 / 12 \\
\end{array}

(4 marks)
14. Lisa asks students about which ice-cream flavour they like best. The diagram shows their answers.

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<tbody>
<tr>
<td>Vanilla</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chocolate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strawberry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banana</td>
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</table>

![Ice-cream diagram]

= 1 Student

a) How many students like **strawberry flavoured** ice-cream best? ________

b) Which is the **least favourite** ice-cream flavour? ________

c) Which ice-cream flavour do students prefer **most**? ________

d) How many students answer Lisa’s question? ________

(5 marks)

15. Fill in the blanks.

![Angle diagram]

a) $x^\circ + 50^\circ = \underline{\quad}^\circ$

b) $x^\circ = \underline{\quad}^\circ - 50^\circ$

c) $x^\circ = \underline{\quad}^\circ$

(3 marks)
16. The following instructions will help you find the hidden treasure. Read the instructions and then answer the questions below.

- **Start at point A (2, 1).**
- **Walk north towards the palm tree, at point B.**
- **From the tree walk 6 units right and 2 units down to point C.**
- **The treasure is at point C.**

![Graph with points A, B, and C marked]

a) Plot your starting point, **A (2, 1)**, on the graph.

b) **Give the coordinates of the palm tree, at point B.** (___,___)

c) **Mark point C on the graph.**

d) **Give the coordinates of the treasure at point C.** (___,___)

e) **Join point A to point B, point B to point C and point C to point A to form triangle ABC.**

(5 marks)
17. a) Fill in the correct name inside each shape. The first one is done for you.

square  rectangle  triangle  circle

circle

b) Underline the correct word.

A (square, rectangle, triangle, circle) is made up of a curved line.

A triangle has (0, 3, 4) vertices.

A (square, rectangle, triangle, circle) has 4 equal sides.

c) (i) Use you ruler to measure the three sides of this shape.

\[ \text{cm} \quad \text{cm} \quad \text{cm} \]

(ii) Work out the Perimeter of this shape.

\[ \text{Per} = \quad \text{cm} \]

d) The area of this shape is \[ \quad \text{cm}^2. \] 

(12 marks)
18. a)  (i)  Complete this shape so that the dotted line is a **line of symmetry**.

(ii) The letter H has rotational symmetry of order ___________.

b) A LOGO turtle follows these commands.

\[
\text{PD} \quad \text{FD 60} \quad \text{RT 90} \quad \text{FD 100} \quad \text{LT 90} \quad \text{FD 30}
\]

Draw a diagram to show the turtle’s trip.

(5 marks)