DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION
Department for Curriculum Management and eLearning
Educational Assessment Unit
Annual Examinations for Secondary Schools 2011
FORM 1
MATHEMATICS
TIME: 30 minutes
Non Calculator Paper

Name: $\qquad$ Class: $\qquad$

| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mark |  |  |  |  |  |  |  |  |  |

## Instructions to Candidates

- Answer all questions.
- This paper carries a total of $\mathbf{2 5}$ marks.
- Calculators and protractors are NOT ALLOWED.

1. a)

b)

2. 

a) $4 \times 8=\square$
b) $5 \times \square=35$
c) $12 \div 4=\square$
d) $42 \div \square=7$
(4 marks)
3. Ramona buys a packet of biscuits at $€ 1.25$, a box of chocolates at $€ 2.33$ and a bag of sweets at $€ 1.37$.
a) How much does she spend?

Answer $\qquad$
b) She pays with a 5 Euro note. What change does she get?

Answer $\qquad$
(4 marks)
4. The pricesfor a boat trip are asfollows:

Adult $€ 2.50$
Child €1.30
a) Complete this formula:
$\boldsymbol{\operatorname { C o s t }}(\boldsymbol{\ell})=\square \times$ number of adults $+\square \times$ number of $\boldsymbol{C}$ hildren.
b) Work out the cost for a trip for a family of 2 adults and 3 children.

Cost for 2 adults


Cost for 3 c hildren $\square$

Total Cost

```
€
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5. a) Paul is $\mathbf{1}$ metre $\mathbf{5 5}$ centimetres tall. Write this height in centimetres.

Answer $\qquad$ cm
b) A can holds 3.5 litres of water. How many millilitres of water does this can hold?

Answer $\qquad$ ml
c) A box of oranges weighs $\mathbf{7 4 0 0}$ grams. Write this weight in kilograms.

Answer $\qquad$ kg
(3 marks)
6. Work out the perimeter of this field.


Answer $\qquad$ m
(2 marks)
7. This is the number of goals for 5 football matches:

Match 1: 5 goals.
Match 2: 4 goals.
Match 3: 2 goals.
Match 4: 1 goal.
Match 5: 3 goals.


Work out the mean number of goals in each match.

Answer $\qquad$
(2 marks)
8. A bag contains an orange, two apples and a pear. What is the probability that I pick an apple from this fruit bag?


Answer $\qquad$

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FORM 1 MATHEMATICS Main Paper

Question \begin{tabular}{c|c|c|c|c|c|c|c|c|c|c|c|c|c|c||c|c||c|}

\hline 1 \& 2 \& 3 \& 4 \& 5 \& 6 \& 7 \& 8 \& 9 \& 10 \& 11 \& 12 \& 13 \& 14 \& 15 \& | Total |
| :---: |
| Main | \& | Non |
| :---: |
| Calc | <br>

\hline \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
Mlobal <br>
Mark
\end{tabular}$|$

DO NOT WRITE ABOVE THIS LINE

Name: $\qquad$ Class: $\qquad$

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

1. Use the 10 by 10 square below to complete these sentences:

a) The 10 by 10 square has $\qquad$ small squares.
b) One half of the shape will have $\qquad$ small squares.
c) One half of the shape is $\qquad$ .
(12 percent, $50 \%$, 75 out of hundred)
2. 

## JULY 2011

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\underline{26}$ | $\underline{27}$ | $\underline{28}$ | $\underline{29}$ | $\underline{30}$ | $\underline{1}$ | $\underline{2}$ |
| $\underline{3}$ | $\underline{4}$ | $\underline{5}$ | $\underline{6}$ | $\underline{7}$ | $\underline{8}$ | $\underline{9}$ |
| $\underline{10}$ | $\underline{11}$ | $\underline{12}$ | $\underline{13}$ | $\underline{14}$ | $\underline{15}$ | $\underline{16}$ |
| $\underline{17}$ | $\underline{18}$ | $\underline{\underline{19}}$ | $\underline{20}$ | $\underline{21}$ | $\underline{22}$ | $\underline{\underline{23}}$ |
| $\underline{24}$ | $\underline{25}$ | $\underline{26}$ | $\underline{27}$ | $\underline{28}$ | $\underline{29}$ | $\underline{30}$ |
| $\underline{31}$ | $\underline{1}$ | $\underline{2}$ | $\underline{3}$ | $\underline{4}$ | $\underline{5}$ | $\underline{6}$ |

a) (i) What day of the week isJ uly 6th?

Answer $\qquad$
(ii) How many Saturdays are there in this month?

Answer $\qquad$
(iii) What day of the week is August 1st 2011?

Answer $\qquad$
b) At four o'clock in the afternoon I go to the beach. Write this time using the 24 -hour clock.

Answer $\qquad$
$\qquad$
$\qquad$
3. a) Maria goesto a garden shop to buy some things. Complete this bill for her.

3 flowering pots at $€ 1.44$ each.
2 bags of fertilizer at $€ 1.23$ each.
4 packets of seeds at $€ 0.80$ each.

## Total cost

b) A group ticket for five people costs $€ 11.00$.

Dylan is one of a group of five friendstaking the group ticket. How much does he pay?

Answer $\qquad$ (5 marks)
4. Timmy's room is 4 metres long and 2 metres wide. There is a 2 metre window on the longerside and a 1 metre door on the shorter side.

a) Measure on the diagram:
(i) the length of the room Answer $\qquad$ cm
(ii) the width of the room Answer_ $\quad \mathrm{cm}$
(iii) the width of the window Answer $\qquad$ cm
(iv) the width of the door Answer $\qquad$ cm
b) What scale is being used to draw the plan of Timmy's room?

Answer $\qquad$ cm to $\qquad$ m
5. a) Put these numbers on the number line below. The first one is already done for you.

b) These are the temperatures in Warsa w a nd Helsinki.

Warsaw $-3^{\circ} \mathrm{C}$, Helsinki $-5^{\circ} \mathrm{C}$
Which city has the colder temperature?
Answer $\qquad$
(4 marks)
6. a) Fill in the missing numbers in this ta ble:

| Number | Nearest 1000 | Nearest 100 | Nearest 10 |
| :---: | :---: | :---: | :---: |
| 1836 | 2000 |  |  |
| 2153 |  | 2200 |  |
| 2719 |  |  | 2720 |

b) Diane goes to the grocer and gets this bill:
€1.98
€2.12
€4.82
$€ 11.05$
$€ 19.97$
What euro note/notes does she need to pay this bill?
Answer $\qquad$
$\qquad$
$\qquad$
7. Work out:
a) $(4+2) \times(2+7)$

Answer $\qquad$
b) $2.5+3.2 \times 1.5$

Answer $\qquad$
c) $8 \div(1.3+2.7)$

Answer $\qquad$
(6 marks)
8. a) Complete the table of inputs and outputs for the number machine.

| Input | 5 | 7 | 8 | 11 | 14 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Output | 3 | 5 | 6 |  |  |

b) Fill in the space in this number machine.

9. Tony and Maria are playing the battle-ship game. This is Tony's sheet.

a) Maria chooses three points to try to hit Tony's ships. These are $(1,1),(5,3),(3,4)$. Mark these points on Tony's grid.
b) Does Maria hit any of Tony's ships? Answer $\qquad$
c) Mark on the grid two points that will hit one of Tony's two ships.

Answer $\qquad$
10. Alfred has a plant shop and he keeps a record of how many plants he sells each day.
This is his record sheet for a particular week.

a) Alfred sells most plants on $\qquad$ and $\qquad$ .
b) Alfred sells the least plantson $\qquad$ .
c) How many plants does he sell in all during this week?

Answer $\qquad$
(4 marks)
11. a) Measure the angles of the triangle $\mathbf{A B C}$.

(i) angle $\mathbf{A}$ $\qquad$ $\circ$
(ii) angle B $\qquad$ -
(iii) angle C $\qquad$ $\circ$
(iv) Triangle $A B C$ is $\qquad$ triangle. (a scalene, an isosc eles, an equilateral)
b) What is the order of rotational symmetry of these shapes?
(i) a square:
 order $\qquad$
(ii) a regularpentagon:

order $\qquad$
(iii) an equilateral triangle:

12. a) Use your ruler and your set square or protractor to draw a square whose sides are 6 cm each. Line $A B$ is done for you.

b) Fill in the missing LOGO commands for the turtle to draw a square.

PD REPEAT4[ $\qquad$ 50 RT $\qquad$ ]
13. a) What is the area of each of these letters? (Each square represents $1 \mathrm{~cm}^{2}$ )
(i)


Area $\qquad$ $\mathrm{cm}^{2}$
(ii)


Area $\qquad$ $\mathrm{cm}^{2}$
(iii)


Area $\qquad$ c $\mathrm{m}^{2}$
13. b) Fill in the units for these measurements.
(Choose from $\mathrm{m}, \mathrm{cm}, \mathrm{cm}^{2}, \mathrm{~cm}^{3}$.)
Each square hasa side of 1 cm .
(i)


The area of this square is 9 $\qquad$
(ii)


The volume of this cube is 27 $\qquad$
(5 marks)
14. a) The pie chart shows the type of weather we had last March.


Choose True or False neareach sentence.
True False
(i) More than 15 days were sunny last March.

(ii) We had rain everyday. $\square$
$\square$
(iii) The weather was mostly windy in March. $\square$

14. b) This barchart shows the favourite drinks of a class of students.

(i) Students like to drink $\qquad$ most.
(ii) How many students like water?

Answer $\qquad$
(5 marks)
15. Brandon closes his eyes and picks a card from the following:
24

a) What is the probability that he picks:
(i) a ?
(ii) a 3?
(iii) a multiple of 2?
(iv) an odd number?

Answer $\qquad$
Answer $\qquad$
Answer $\qquad$
Answer $\qquad$
b) It is (c erta in, likely, unlikely, impossible) that Bra ndon picksa 6.

## END OF PAPER

