DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION
Department for Curriculum Management and eLearning Educational Assessment Unit
Annual Examinations for Secondary Schools 2012
FORM 2
$\qquad$ Class: $\qquad$

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

## Instructions to Candidates

- Answer ALL questions.
- This paper carries a total of 25 marks.
- Calculators and protractors are NOT ALLOWED.

1. Anna puts numbers in this machine.


Work out the answer that comes out when she puts in the following numbers:
a) $\mathbf{2 4 7}$
b) $\mathbf{4 0 . 0 6}$
2. Mr Zerafa buys some carrots, broccoli and cherries.
a) Which item cost him least?
b) Calculate his total bill.


$$
€
$$

$\qquad$
c) What change does Mr Zerafa get from $€ 5.00$ ?
$\qquad$
(5 marks)
3. Angela goes shopping.

a) Write the prices of Angela's shopping in order, starting from the smallest.
$\qquad$ , $\qquad$ , $\qquad$ , $\qquad$ , $\qquad$
b) Underline the correct word:

The pineapple has the (least, mode, highest, median, range) price.
c) Write each price correct to the nearest Euro ( $€$ ).

$\qquad$ , $\qquad$ , $\qquad$ , $\qquad$ , $\qquad$
d) Use your answers in (c) to calculate a rough estimate of how much Angela spends in all.
$\qquad$
(6 marks)
4. The number in each rectangle is equal to the sum of the two numbers directly below it.
Example: $3=1+2$

Find the values of A, B, C and D.

$\mathrm{A}=$ $\qquad$ , $\qquad$ ,
$\mathrm{C}=$ $\qquad$ , $\qquad$
5. Work out these :
a) $(-7)-(-1)=$ $\qquad$
b) $30 \times(5-2)=$ $\qquad$
c) $2^{2}-1=$ $\qquad$
6.


Becky and her four friends share the total bill equally among them.
The total bill is $\mathbf{£ 2 5 . 3 0}$.
How much does each one pay?
7. a) Draw the reflection of this shape in the line of symmetry.

b) Move this Euro coin $\mathbf{3}$ right and 2 up.

Draw the coin in the new position.


## END OF PAPER

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FORM 2
MATHEMATICS
Main Paper

Question \begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|l|l|l||l|l||l|}

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

\hline \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline
\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.

a) Use these cards to make the following numbers:
i) the smallest 4-digit number. $\qquad$
ii) the largest 3-digit number. $\qquad$
iii) a 2-digit multiple of 7 . $\qquad$
b) Fill in the missing numbers in the function machines:

2. a) Jake uses some solid wooden shapes to make a puppet.

Fill in the blanks using the following words:

| cubes, | cuboid, | cone, | sphere, | cylinder |
| :--- | :--- | :--- | :--- | :--- |



Jake does not use any $\square$
b) Find the volume of wood of one of the cuboids used for the puppet's feet.

$\qquad$ $\mathrm{cm}^{3}$
3. a) Use your pencil to shade this grid grey and white in the ratio $\mathbf{2 : 3}$.
b) Fill in : There are $\square$ grey squares.

There are $\square$ white squares.

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |

c) Write this fraction in its lowest terms:

d) Write the fraction in (c) as a percentage. $\qquad$ \%
(5 marks)

Name: $\qquad$

## Class:

$\qquad$
4. Circle the odd one out.
a) $(50 \%$, $\frac{1}{2}$,
0.2,
b) (4,
5,
9 ,
16)
c) $(\mathrm{cm}$,
mm,
g,
km)
d) (scalene, square, isosceles, equilateral)
5. a) Match the angles formed by the girl's fan to their correct names. One is done for you.

b) Use your protractor to draw and label an angle of $83^{\circ}$.
6. a) Peter weighs each item.

Mark the weight of each item on the scale. The first one is done for you.


b) How many small pieces of cheese $(200 \mathrm{~g})$ can be cut from the larger piece $(1.5 \mathrm{~kg})$ ?
$\qquad$ pieces
(5 marks)
7. a) Fill in the spaces on this probability scale with the numbers $0,1, \frac{1}{2}$.

b) Write the letters in the correct places.
[A] Easter Day will be on a Sunday.
[B] At the dentist, the next person to enter the waiting room is a female.
[C] You will live forever.
[D] A multiple of 4 shows when I throw a dice.

$\qquad$

## Class:

$\qquad$
8. a) Luke writes LOGO commands for the turtle to draw this triangle.

Fill in the missing command.

b) Calculate the missing angle.

c) Use compasses and protractor to construct Luke's triangle accurately.

$$
1 \mathrm{~cm}=10 \text { turtle steps }
$$


(6 marks)
9. Sam does a questionnaire among his friends at the football nursery.


He shows the information collected as follows:


| Age | 8 | 9 | 10 | 11 | 12 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number <br> of <br> Players | 4 | 2 | 15 | 8 | 1 |

a) Measure the angle in the pie chart that represents the female players.
b) Underline the correct word:

There are more (females, males, players) in Sam's football nursery.
c) How many players answered the questionnaire?
$\qquad$ players.
d) What is the most common age of the players? $\qquad$ years.
e) What is the age of the oldest player? $\qquad$ years.
f) Find the range of ages at the football nursery.
$\qquad$ years.
g) Complete the bar chart to show all the information about the ages of the players.

10. Jessica has $€ \mathbf{5 0}$ in her wallet. She wants to buy the following items.

a) How much money does she need?

$€$ $\qquad$
b) Does she have enough money? YES $\square$ or $\mathrm{NO} \square$
c) The salesgirl gives her a discount of $\mathbf{1 0 \%}$ on the total bill.

How much does Jessica save?
$\qquad$
(4 marks)
11. This is a sketch of Claire's house.

a) Fill in all the measurements of Claire's bedroom.

The first measurement is done for you.
b) Calculate the perimeter of Claire's bedroom.
$\qquad$
c) Find the area of Claire's bedroom.
$\qquad$ $\mathrm{m}^{2}$
(6 marks)
12. a) Look at the graph and fill in the blanks:

$$
€ 6=£
$$

$\qquad$
b) Use the information in (a) to calculate the cost in Pounds (£) of a video game which costs $€ 48$.
$\qquad$
(3 marks)
13. Nathan buys game cards from internet.

Nathan writes down the formula

$$
\mathrm{C}=2 n+3
$$

a) Underline the correct one:

## Packets of Game Cards

@ €2 each Postage costs € $\mathbf{€}$ per order

C stands for (total cost, game cards, packets).
b) How much does it cost to buy 5 packets of cards?
$€$ $\qquad$
c) Nathan buys some packets of game cards for him and his friends.

He spends a total of $€ 27$.
How many packets of cards does he buy?
$\qquad$ packets
(4 marks)
14.

a) Fill in the coordinates of $\mathbf{A}(, \quad)$ and $\mathbf{C}(, \quad)$
b) Join points $\mathrm{A}, \mathrm{B}, \mathrm{C}$ and D to form shape ABCD .
c) Underline the correct word: Shape ABCD is called a (triangle, trapezium, square).
d) Plot and label the following points:
i) $\mathbf{E}(-1,5)$
ii) $F(-1,-3)$
iii) $\mathbf{G}(\mathbf{0},-\mathbf{2})$
iv) $\mathbf{H}(\mathbf{3}, \mathbf{- 2})$
v) $I(-1,4)$
e) Join the lines AE, EF, FG, GH and HI.
f) The Picture formed has a vertical line of symmetry.

TRUE $\square$ or FALSE $\square$

## END OF PAPER

