DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION
Department for Curriculum Management and eLearning
Educational Assessment Unit
Annual Examinations for Secondary Schools 2011

B

FORM 1 **MATHEMATICS** **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 25 marks.**

- **Calculators and protractors are NOT ALLOWED.**

1.   Work out the **sum** of: 27.86 and 9.05

_____
(1 mark)

2.   Write in order of size, **smallest first**: one million, 10^4, one hundred thousand.

(2 marks)

3.   Mike has forty-nine boxes each containing 51 cards.

Work out the total number of cards.

_____
(2 marks)

4. a) Write down the number **nearest** to 4.

0.044   0.404   4.004   4.040   4.400

_____

b) Work out: $-2-3=$

_____

c) At Peppi's farm 22 cows have spots.

At Leli's farm 50% of his 40 cows have spots.

Marica says that there are more cows with spots in Leli's farm.

Is she right? Explain.

Yes / No , because _____

_____

(5 marks)

5. a) (i) List all the **square** numbers between **0** and **30**. ___ ___ ___ ___ ___

   (ii) Anita thinks of an **even square** number between 0 and 30.

   What can her number be?

   _____ or _____
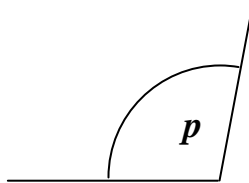
   b) Fill in with the **smallest** number possible:

   $30 + \boxed{} = $ a multiple of 9

   c) Which of the following is a **prime number**?

   12,   15,   23,   28,   33,   39
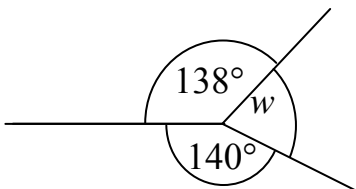
   _____

   (4 marks)

6. Fill in:

   The size of angle **p** is about _____ .

   45°   85°   100°   200°

   (1 mark)

7. Calculate the value of the angle marked *w*.

   $w = $ _____ °

   (3 marks)

8. a) Express 3200 m in km.

_____

b) Henry made a scale model of a car using a scale of **1:20**.

If the model is 25 cm long, how long is the real car?

_____

(2 marks)

9. Complete the sequence:

_____,   −1,   1,   3,   5,   _____

(2 marks)

10. a) Simplify: $\dfrac{2}{7}$ + $\dfrac{4}{7}$

_____

b) Work out:

$\dfrac{2}{5}$ of €25

€ _____

(3 marks)

END OF PAPER

B

FORM 1	MATHEMATICS	TIME: 1h 30min
	Main Paper	

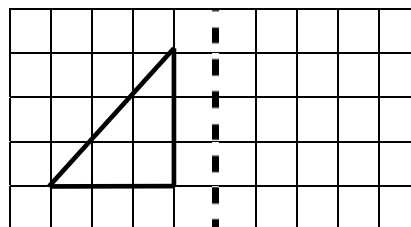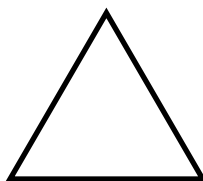| Question	1	2	3	4	5	6	7	8	9	10	11	Total Main	Non Calc	**Global Mark**
Mark														

DO NOT WRITE ABOVE THIS LINE

Name: _____   **Class:** _____

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

1 a)   Complete the shape to make it

symmetrical about the broken line.

  b)   Fill in:
       This triangle has **rotational** symmetry of order _____.

  c)   Which of the following quadrilaterals does **not** have a line of symmetry?

       KITE   PARALLELOGRAM   RECTANGLE   CIRCLE

       _____
                                                    (3 marks)

2. a) (i)   Show the time *quarter past seven* on the clock face.

   (ii) Write the time **half** an hour **later**.

_____

   b)   If today is Sunday ninth May, what **date** was it last Sunday?

_____

   c)   Annabel is doing a summer job from **9:00** am till **14:00**.
        She is paid €5.34 per hour.
        If she takes a 1hour **unpaid** break everyday, how much does she earn:

        (i)   in 1 day?
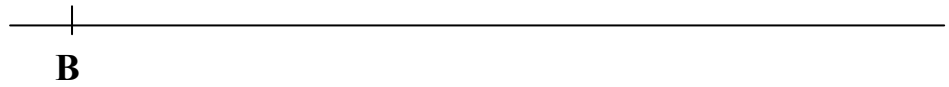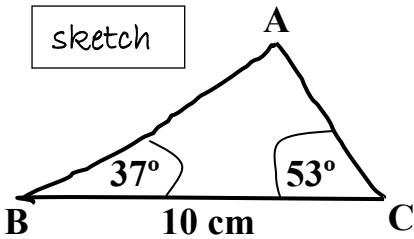
€_____

        (ii) in a five-day week, correct **to the nearest** euro?

€_____ (*correct to nearest euro*)
                                                        (*8 marks*)

3. The diagram shows a sketch of △ABC. Use the following instructions to construct an accurate diagram.

sketch

A

37º   53º

B   10 cm   C

—|——————————————————

B

a)   Mark point C on the line, 10 cm away from point B.

b)   Use a protractor to draw an angle of 37° at B and an angle of 53° at C.

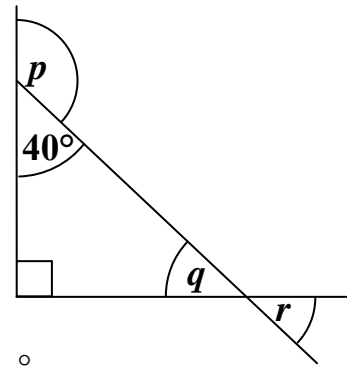c)   Continue to make an accurate, **labelled** drawing of △ABC.

d)   Measure angle A.

Angle A = _____

e)   Mark and label point X, the midpoint of BC.

f)   Draw a circle with centre X and with AX as radius.

(8 marks)

4. a)   Work out the size of the lettered angles.
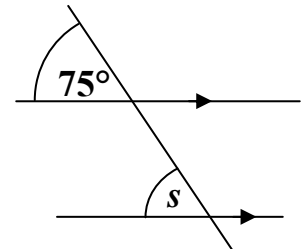
(i)   *p*

$$p = \underline{\hspace{2cm}}°$$
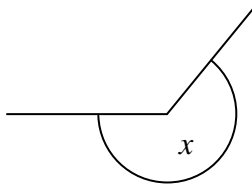
(ii)   *q*

$$q = \underline{\hspace{2cm}}°$$
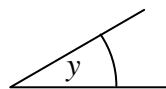
(iii)   *r*

$$r = \underline{\hspace{2cm}}°$$
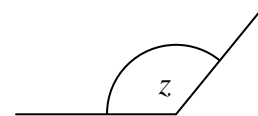
(iv)   *s*

$$s = \underline{\hspace{2cm}}°$$

b)   Write **acute angle, obtuse angle, right angle** or **reflex angle** under the appropriate diagram.

$x = \underline{\hspace{3cm}}$ $y = \underline{\hspace{3cm}}$ $z = \underline{\hspace{3cm}}$
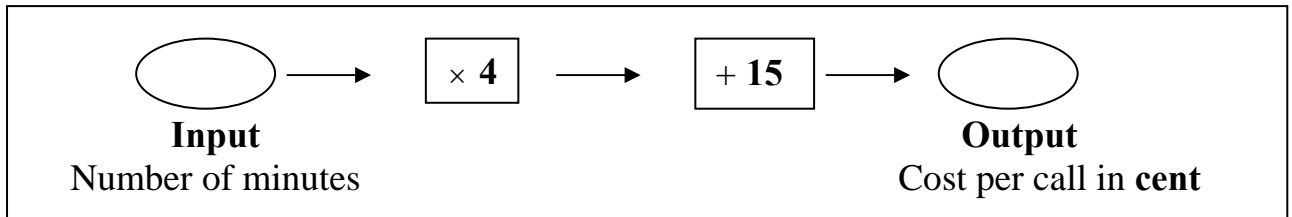
(8 marks)

5.a)   *Magic Mobile* uses this number machine to calculate the cost per call:

Input
Number of minutes

$\times$ **4** $+$ **15**

Output
Cost per call in **cent**

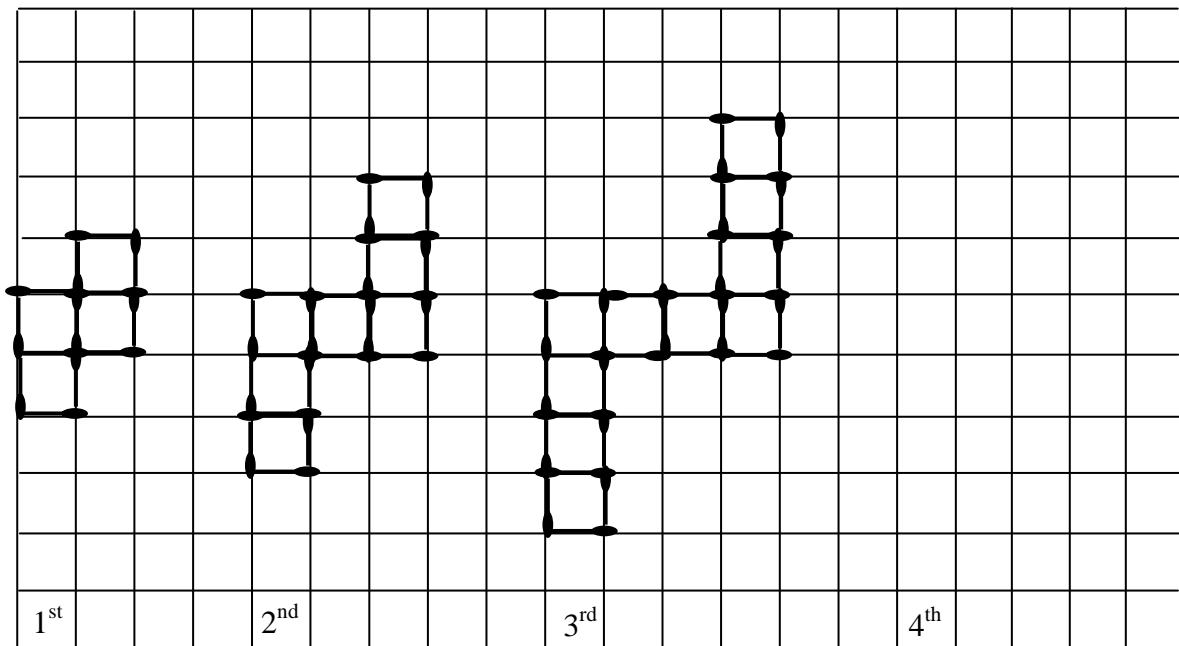   (i)   Charlotte makes a **5 minute** call. How much does her call cost?

_____ cent

   (ii) Xandru makes a **10 minute** call. He says he will pay **twice** as much as Charlotte. Is he correct? Explain.

_____

_____

b)

1st 2nd 3rd 4th

   (i)   Draw the 4th pattern in this sequence made up of matches.

   (ii) Complete this table:

Pattern number	1st	2nd	3rd	4th	5th
Number of matches	4	7			

(*7 marks*)

6. The table shows the pocket money (in euro) earned per week by a group of children.

5	5	10	10
10	10	10	10
12	12	12	15
15	15	18	20
20	25	25	30

a) What is the **range** of pocket money?

€ _____

b) Complete the table.

Pocket money	Tally	Frequency
1 - 5	//	2
6 - 10		
11 - 15	~~HHH~~ /	
16 - 20		
21 - 25		
26 - 30		
Total		**20**

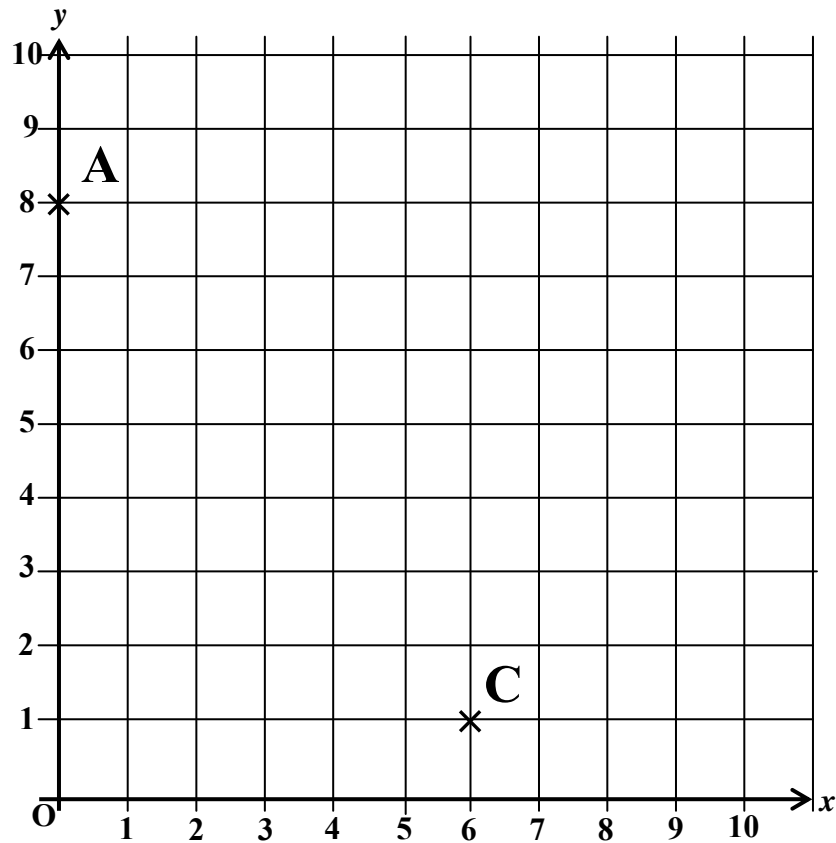c) Continue shading the bar chart to represent the above information.
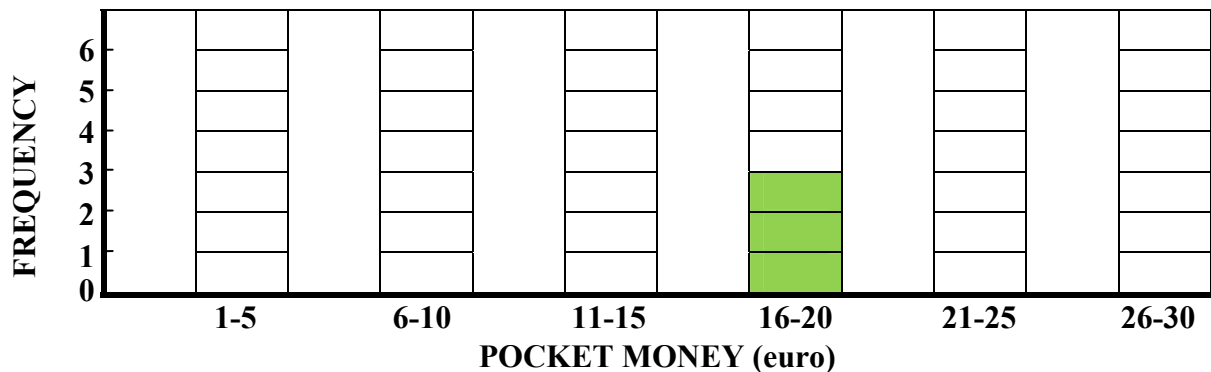
d) Fill in the spaces.

The number of children who received **less** than €16 : those who received €16 or more

= _____ : _____

e) What is the probability of receiving **more** than €20 in this group?

_____

(8 marks)

7.
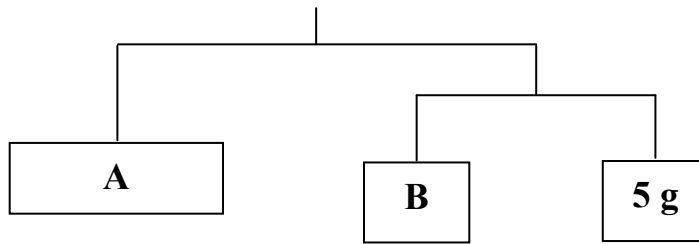

a) Write the co-ordinates of **A** (,) and **C** (,).

b) Plot and label the point **B** (8 , 7).

c) Use a ruler to join **A** to **B** to **C** to form a triangle.

d) What is this triangle called?

_____

(8 marks)

8. a)

The diagram shows a balanced scale. Fill in the spaces below.

(i) B = _____ g

(ii) A = _____ g

(iii) Find the value of x when

$x + 8 = 10$

$x =$ _____

(iv) Find the value of y when

$2y - 3 = 7$

$y =$ _____

b) Complete the LOGO command that draws a **square** whose **perimeter** is **200** turtle steps.

PD REPEAT _____ [FD ____ RT ____]

(8 marks)

9. a)   Tidy up:

(i) $4a + 9b + a - 2b = $ _____

(ii) $2(3p - 4) + p = $
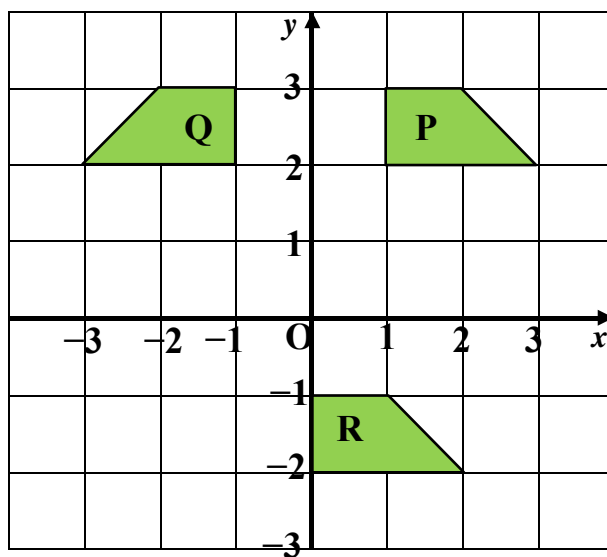
_____

b)   If $h = 2$ and $j = 5$, work out the value of $3(h + j)$.

_____

(7 marks)

10.

For each of the following describe *fully* the transformation which takes the first shape on to the second.
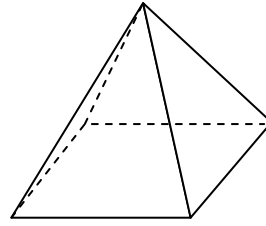
a)   **P** to **Q**   _____

b)   **P** to **R**   _____

(5 marks)

11. a)

   Fill in:

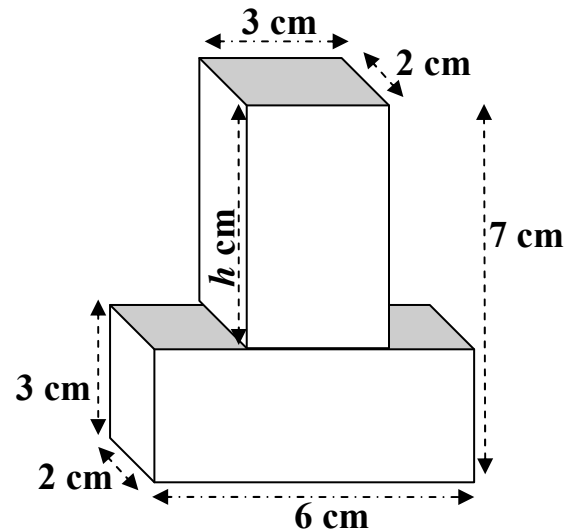   This solid has _____ edges.

   b)

      (i)   Calculate the value of h.

            $h =$ _____ cm

      (ii) Work out the total **volume** of the solid formed

            by the two cuboids.

3 cm

2 cm

7 cm

h cm

3 cm

2 cm

6 cm

_____ cm^3

(5 marks)

END OF PAPER