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DIRECTORATE FOR QUALITY AND STANDARDS IN EDUCATION
Department for Curriculum Management and eLearning
Educational Assessment Unit
Annual Examinations for Secondary Schools 2013

LE
6 -

FORM 1 **MATHEMATICS** **TIME: 30 minutes**
Non Calculator Paper

Question	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Total**
Mark								

DO NOT WRITE ABOVE THIS LINE

Name: _____ **Class:** _____

Instructions to Candidates

- **Answer all questions.**
- **This paper carries a total of 25 marks.**
- **Calculators and protractors are NOT allowed.**

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1. a) Which is **greater** 0.5 or 0.25? _____

b) The value of the digit **8** in 2.**8**5 as a fraction is $\frac{\square}{\square}$.

c) €4.50 × 10 = _____

d) (−3) + (−4) = _____

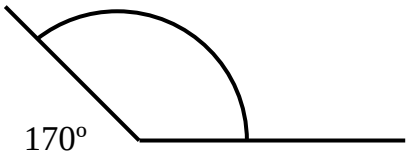
e) 234.5 correct to the nearest whole number is _____

(5 marks)

---

2. **Underline** the correct answer.

a) This angle is about:



130º 90º 45º 170º

b) The best estimate of the capacity of a cup is:

1 litre 5 litres 50 ml 250 ml

(2 marks)

---

3. Choose:

2 3 4 5
6 7 8 9

a) The largest **prime** number between 1 and 10. _____

b) The **odd**, **square** number between 60 and 100. _____

61 63 66 69
71 75 77 78
81 84 88 89
90 96 98 99

(2 marks)

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4. Martin, Helen and Joan each buy a pizza.

Martin eats $\frac{1}{4}$ of it, Helen eats $\frac{1}{8}$ of hers and Joan eats $\frac{1}{3}$ of her pizza.

If the 3 pizza are of the same size, who eats:

a) the largest amount? b) the smallest amount?

Ans a): _____

Ans b): _____

(2 marks)

---

5. a) Write $\frac{1}{4}$ as a **decimal.**

Ans: _____

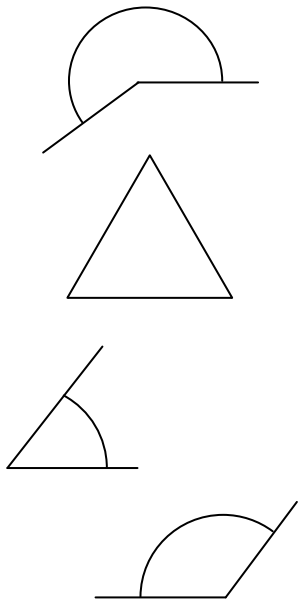
b) Find the **difference** between **25% of €4** and **½ of €2.02**.

Ans: _____

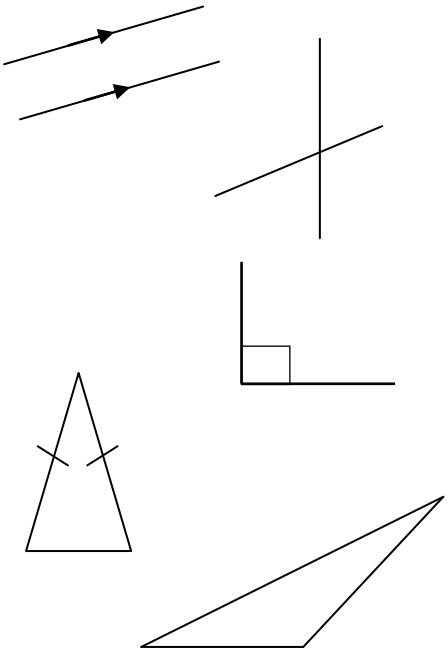
(4 marks)

---

6. **Match** each name with **one** diagram. (*Note: You have extra diagrams.)*



Parallel lines
Right angle
Acute angle
Reflex angle
Isosceles Triangle



7. Samantha first walks $\frac{3}{10}$ of the track and then runs $\frac{1}{10}$ of it.

(5 marks)

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a) What **fraction** of the whole track does she cover **in all**?

Ans: $\frac{\square}{\square}$

b) What **distance** does she cover if the track is 400 m long?

Ans: _____m

c) She repeats the walk and run action **once more.** Has she now covered **more than half** the distance of the track? Explain.

(5 marks)

END OF NON CALCULATOR PAPER

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Department for Curriculum Management and eLearning
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LEV
6 - 7

FORM 1 **MATHEMATICS** **TIME: 1h 30min**
Main Paper

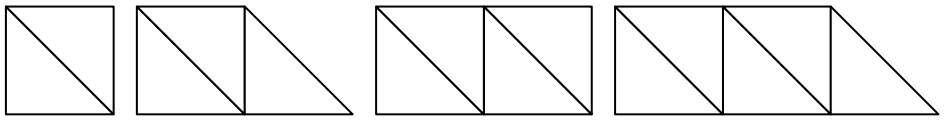
Question	1	2	3	4	5	6	7	8	9	10	11	12	Total Main	Non Calc	**Global Mark**
Mark															

DO NOT WRITE ABOVE THIS LINE

Name: _____ **Class:** _____

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

1. This is a series of shapes in a pattern.



1st shape | 2nd shape | 3rd shape | 4th shape | 5th shape

a) Draw the **5th** shape in the pattern.

b) Complete the table

Shape Number (N)	**1**	**2**	**3**	**4**	**5**	**6**	**8**
Number of triangles (T)	2	3	__	__	__	__	__

c) How many triangles are there in the 100th shape?

Ans: _____ triangles

d) Taking shape number as '**N**' and number of triangles as '**T**', write the equation for this pattern:

T = _____

(6 marks)

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2. a) **Three** friends plan to go on a holiday to Paris.

They decide to share **one** room.

The three flights cost **€704**,

the hotel room costs **€865**

and other expenses amount to **€900**.

Work out: (i) the **total** cost for **all three** for the whole holiday.

Ans: €_____

(ii) the cost for **each one** of the friends **per day** if all expenses are shared **equally** and they stay for **10 days** in Paris.

Ans: €_____

b)

July						**2013**
Sun	**Mon**	**Tue**	**Wed**	**Thurs**	**Fri**	**Sat**
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

They leave Malta **early** on the **second Monday** of **July.**

What is the **day** and **date** of their **arrival** back in Malta?

Ans: day:_____ **Ans:** date:_____

(5 marks)

---

3. A school bus is **13.5** m long.

A **model** is worked on a **scale** of $\frac{1}{100}$.

Work out the length of the **model.**

Ans: _____

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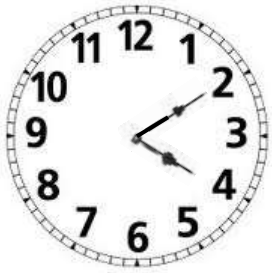
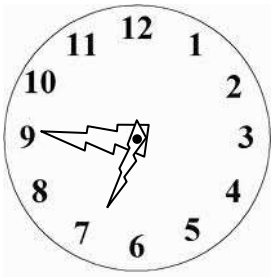
Name: _____ **Class:** _____ **LEVELS** 7

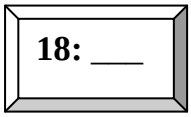
4. a) Fill in to show the correct time for each clock.



(i) _____ minutes past _____



(ii) a quarter to _____

(iii) 

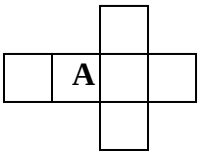
b) Mike **leaves** home at 9:35. He arrives at Valletta **half** an hour later. At what time does he **arrive**?

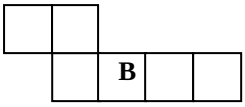
Ans: _____

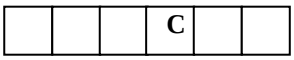
(6 marks)

---

5. a) Which of these is the net of a closed **cube**?

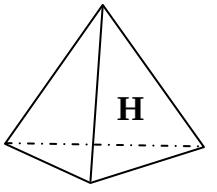


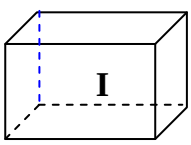




Ans: _____

b) (i) Fill in the 2 spaces in the table:





Shape	No. of vertices	No. of edges
H		
I		

(ii) Which solid above is a **cuboid**? **Ans:** _____

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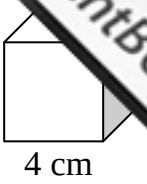
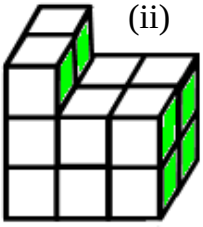
c) The diagram shows a cube of side 4 cm.

(i) Work out the **area** of one **face**.



Ans: _____ cm^2



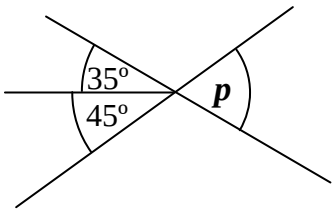
(ii) Find the **volume** of this shape. Each cube is 1 cubic cm.

Ans: _____ cm^3

(7 marks)

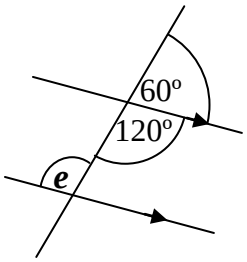
---

6. a) Calculate the angles marked with a letter. *(Do not measure as diagrams are not drawn to scale.)*



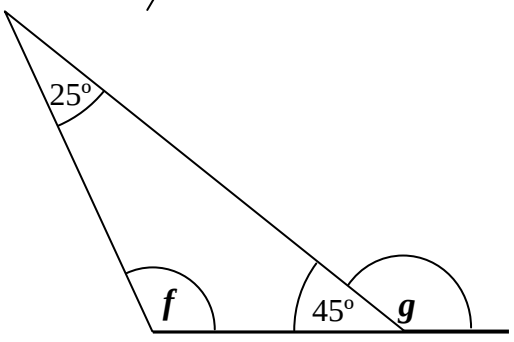
Ans: *p* = _____°

b)



Ans: *e* = _____°

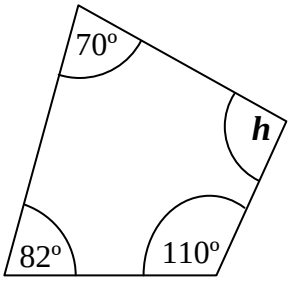
c)



Ans: *f* = _____°

Ans: *g* = _____°

d)



Ans: *h* = _____ °

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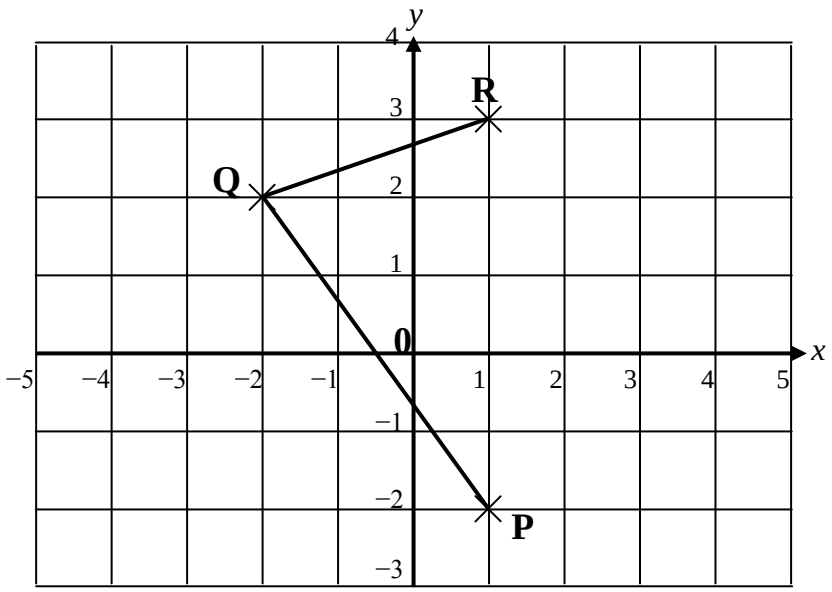
Name: _____ **Class:** _____ **ELS**

7.



a) (i) Complete the coordinates of the points

P = (1 ,), Q = (, 2) and R = (,).

(ii) **Plot** point **S** so that PQRS is a kite. **Join** PQRS.

(iii) **Underline** the correct words:

Kite PQRS is **a regular/an irregular shape**.

b) The following 4 points are in a straight line on the grid:

(−4, 4) (−4, 3) (−4, 2) (−4, 1)

(i) Write down the coordinates of **another** point on this line.

Ans: (,)

(ii) Underline the correct **equation** of this line:

$y = -4$ $y = 4$ $x = -4$ $x = 4$ $y = x - 1$

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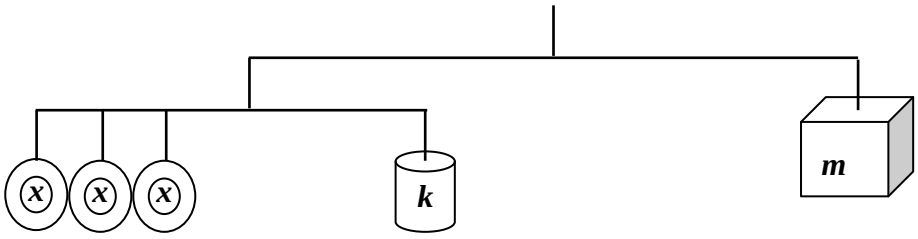
8. a) Refer to this balance to answer the questions below.



(i) Complete the equation. _____ = ***k***

(ii) How many (x) make one ***m*** ? Write this as an equation. _____ = ***m***

b) (i) Find the value of ***p*** in: $p - 15 = 21$

Ans: ***p*** = _____

(ii) Find the value of ***w*** in: $2w + 4 = 14$

Ans: ***w*** = _____

(5 marks)

---

9. a) Evaluate:

(i) $8 \times (43 - 3)$ (ii) $\sqrt{121}$

Ans (i) : _____ **Ans** (ii): _____

b) Find the value of: $2x + y$ when $x = 10$ and $y = 4$.

Ans: _____

c) Simplify: $5(p + q) - 2q$

Ans: _____

(6 marks)

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10. a) The list shows the score obtained when Martha throws an ordinary **six** sided dice **nine** times.

6	**1**	**4**	**5**	**2**
1	**5**	**1**	**2**	

Calculate (i) the **mean** score

Ans: _____

(ii) the **median** score.

Ans: _____

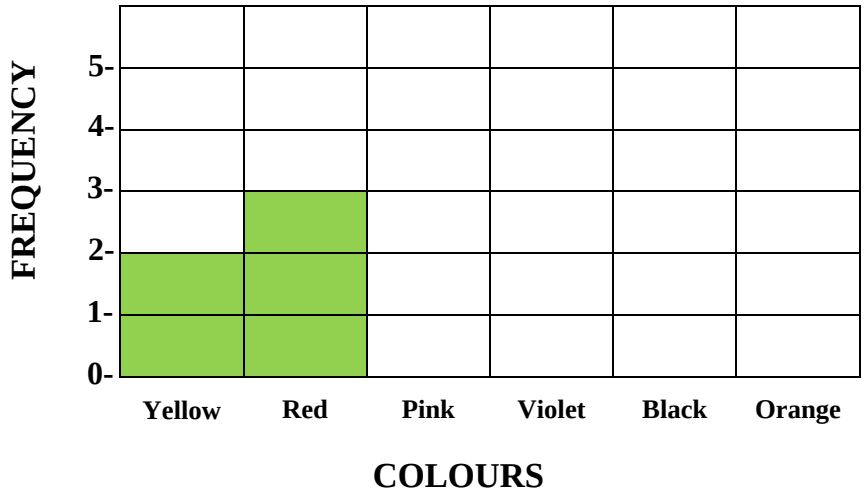
b) Ruth asked the students in her class which was their favourite colour. She recorded this in the table below :

yellow	red	pink	violet	black
pink	black	orange	pink	red
red	yellow	black	violet	pink

Which was the **modal** colour?

Ans:_____ modal colour

c) **Complete** the bar chart to represent the above information.



d) What is the **probability** that the favourite colour was

(i) yellow? _____ (ii) brown? _____

(10 marks)

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11. Mario enters the following commands in LOGO.

PD FD 100 BK 50 RT 90 FD 50

Draw the shape he sees on the screen.

(Turtle is shown in start position.)

(3 marks)

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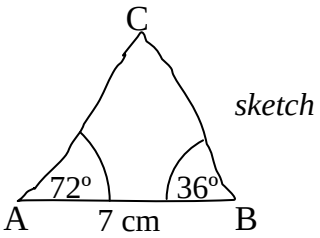
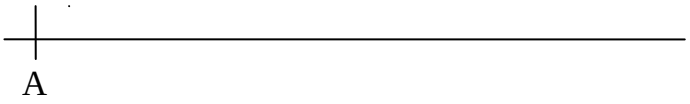
12. a) Draw triangle ABC **accurately**.





b) Measure the remaining sides and angles.

(i) Side AC = _____ to the nearest mm

(ii) Side BC = _____ to the nearest mm

(iii) Angle C = _____ to the nearest degree.

c) Work out the perimeter of triangle ABC.

Ans: _____ cm

d) What kind of triangle is the one above? **Explain**.

Ans: _____

_____

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