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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 2012

D

FORM 4 **MATHEMATICS SCHEME D** **TIME: 20 minutes**
Non Calculator Paper

Question	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**Total**
Mark																					

INSTRUCTIONS TO CANDIDATES

- **Answer all questions.**
- **This paper carries a total of 20 marks.**
- **Calculators and protractors are NOT ALLOWED.**

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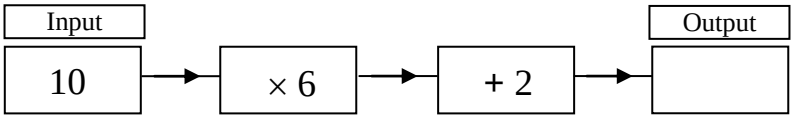
No.	QUESTION	SPACE FOR WO... REQUIRED)
1.	Write down the smallest number: A) 134 B) 1435 C) 14 D) 1320 Answer: _____	
2.	Four cinema tickets cost €24. How much do six tickets cost? Answer: €_____	
3.	Write down the output of this number machine in the empty box.  Answer: _____	
4.	Solve: $5x + 5x = 20$ Answer: _____	
5.	Work out the mean of the following numbers: 15 25 25 15 20 Answer: _____	
6.	Fill in the box: $\frac{18}{30} = \frac{\square}{5}$	
7.	Fill in the missing number: 15 18 ____ 24 27	
8.	One of these numbers is a prime number. Which one is it? A) 190 B) 19 C) 27 D) 125 Answer: _____	

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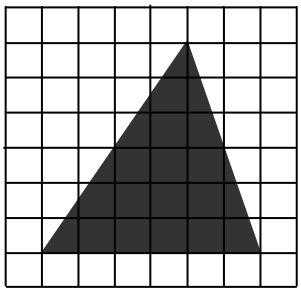
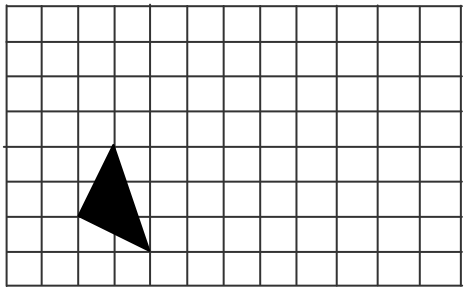
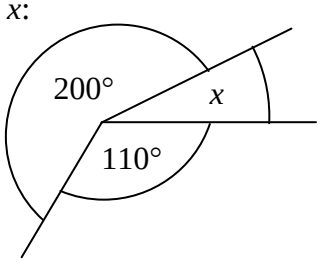
9.	 What is the area of the triangle? (Each square is 1 cm by 1 cm.) Answer: _____ cm^2	
10.	Adrian got 12 marks more than Paul in the English test. If Paul's mark is 27, what is Adrian's mark? A) 39 B) 18 C) 15 D) 50 Answer: _____	
11.	Translate the shape shown by 5 units to the right and 3 units up. 	
12.	Find the size of x:  Answer: _____ °	
13.	A box contains 5 red marbles and 15 blue marbles. What is the probability that I pick a red marble? Answer: _____	
14.	A line has the equation $y = 2 + 2x$. When $x = 3$, $y =$ _____	

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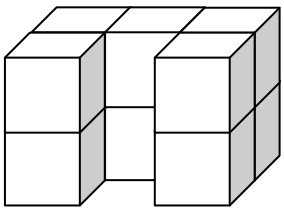
15. Simplify:

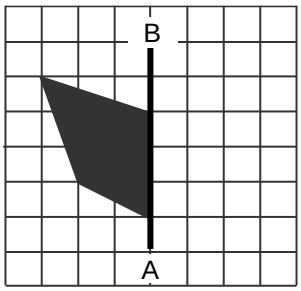
$$2p + q - p + 3q \quad = _____$$

16. The side of each cube is 1 cm long. What is the volume of the shape?



Answer: _____cm^3

17.



The line AB is a line of symmetry of the shape shown.
Complete the shape about the line of symmetry AB.

18. A stone weighs 2.36 kg. What is its weight in *grams*?

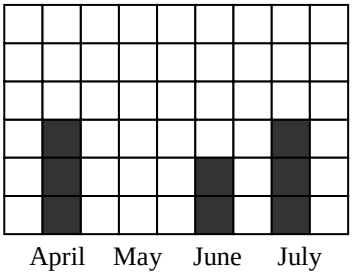
A) 236 B) 23600 C) 0.236 D) 2360

Answer: _____ g

19. The table below shows the number of people who applied for a job in a company:

April	May	June	July
3	5	2	3

Complete the bar graph.



20. The turtle starts from the position shown.
Sketch the figure drawn by the turtle for
this set of LOGO commands:

PD FD 100 RT 90 FD 50 RT 90 FD 100

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D

FORM 4 **MATHEMATICS SCHEME D** **TIME: 1h 40min**
Main Paper

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total Main	Non Calc	**Global Mark**
Mark																	

Name: _____ **Class:** _____

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

1. (a) Work out the following:

$$545 - 415 + 657 = _____$$

(b) Two of the following numbers lie between $\frac{1}{5}$ and $\frac{9}{10}$.

$$2\frac{1}{2} \qquad \frac{3}{4} \qquad 1 \qquad \frac{4}{5}$$

The numbers are _____ and _____.

(4 marks)

2. (a) Simplify the ratios

(i) 12:15 Answer: _____

(ii) 15:25 Answer: _____

(b) Write down the number 28,200 in words.

_____

(4 marks)

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3. (a) Write 2.567×10^4 as an ordinary number.

Answer: _____

(b) Fill in: $2 \times 2 \times 2 = 2^{\square}$

(c) How many days are there from the 25th of March to the 1st of May?

Answer: _____days

(d) What is $\frac{3}{5}$ of 25?

Answer: _____

(4 marks)

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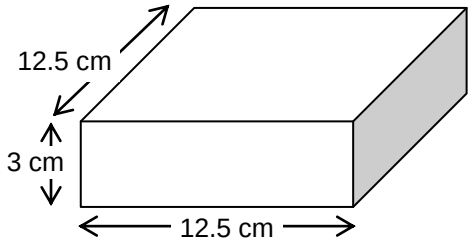
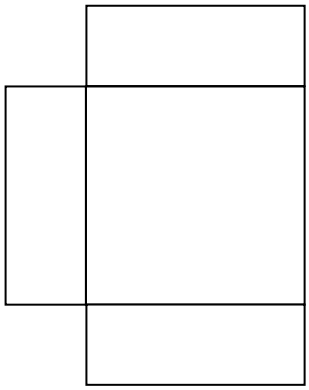
4. A closed box is in the shape of a cuboid.



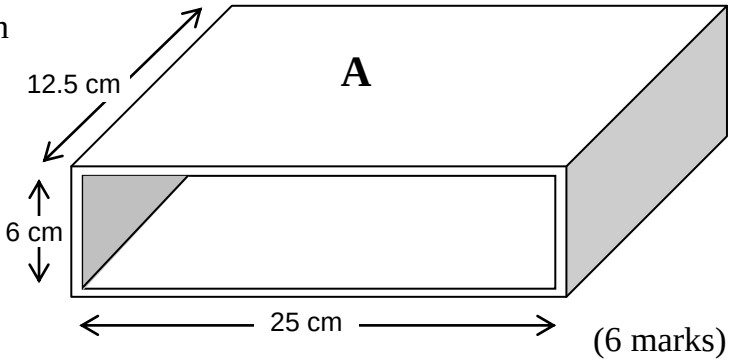
(a) Work out the volume of the box.

Answer: _____cm^3

(b) Below is shown part of the net of the box. Complete the net.



(c) How many of these boxes can fit in the open box **A**?



Answer: _____

(6 marks)

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Name: _____ Class: _____

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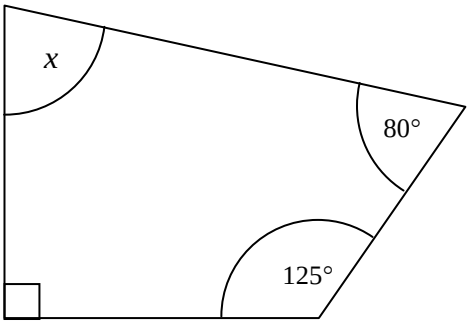
5. (a) The sum of the angles in a quadrilateral is _____°.

(b) Calculate the value of angle *x*.



Answer: _____°

(4 marks)

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6. (a) My water and electricity bill is €2440 this year. It is €240 more than last year's.

(i) What was last year's bill?

Answer: €_____

(ii) I paid $\frac{3}{4}$ of this year's total bill for electricity. How much did I pay?

Answer: €_____

(b) (i) Express 2357 to the nearest ten: _____.

(ii) Work out: $-244 - 56 =$ _____.

(c) Calculate 20% of 360 m.

Answer: _____ m

(8 marks)

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7. (a) A film starts at 8:30 pm. It ends at 11:15 pm. How long is the film?

Answer: _____hours _____ minutes

(b) A car costs €4500. I pay €2000.

(i) How much do I still have to pay?

Answer: €_____

(ii) I pay the rest of the money in equal sums for five months. How much do I pay each month?

Answer: €_____

(6 marks)

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8. (a) Complete the following sequence:

4 10 16 ____ 28 ____

(b) Change 6152 g into kilograms.

Answer: _____ kg

(c) *Fill in with* **less** *or* **greater**.

3894 m is _____ than 4.32 km.

(4 marks)

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Name: _____ Class: _____

9. (a) Solve the equations:

(i) $4x - 6 = 2$

Answer: _____

(ii) $3x + 1 = 10$

Answer: _____

(b) Expand

$3(x - 5)$

Answer: _____

(6 marks)

---

10. (a) In a box there are 4 white, 10 black and 6 yellow counters. I pick a counter at random.
The statements below are either true or false. Tick the correct answer.

(i) The probability that I pick a black counter is $\frac{1}{2}$. ☐ True ☐ False

(ii) The probability that I pick a white counter is 0. ☐ True ☐ False

(iii) The probability that I pick a yellow counter is 1. ☐ True ☐ False

(b) A **fair** coin is tossed 100 times. Estimate the number of times the coin shows a Head.

Answer: _____

(4 marks)

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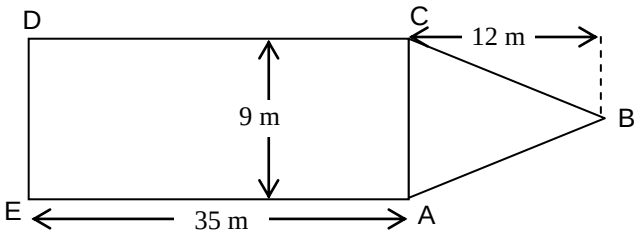
11. (a) A garden has the shape shown. In the triangle AB = BC.



(i) What is the triangle ABC called? Choose the correct answer.

scalene ☐ *right-angled triangle* ☐ *isosceles* ☐

(ii) Calculate the area of the triangle.

Answer: _____m^2

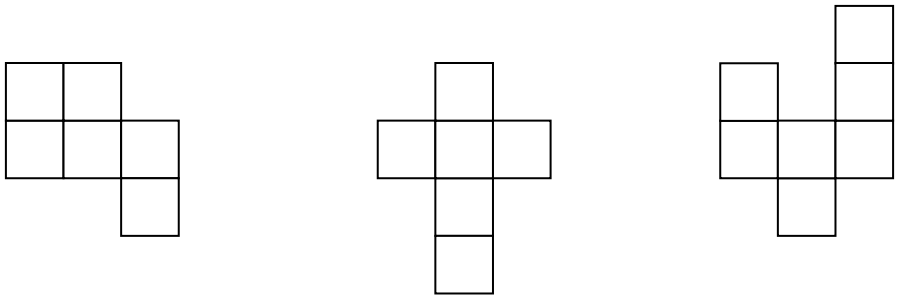
(iii) Calculate the area of the rectangle.

Answer: _____m^2

(iv) What is the total area of the garden?

Answer: _____m^2

(b) One of the nets shown is that of a cube. Which one is it?
Tick the correct answer.



A **B** **C**

(8 marks)

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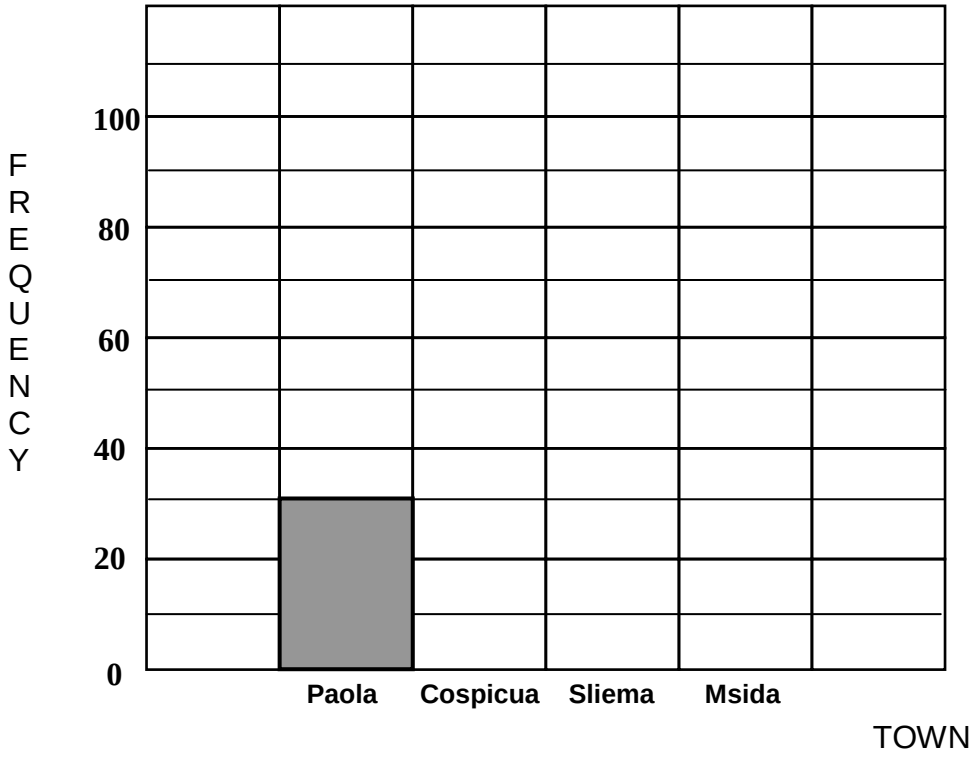
12. The table shows the number of cars sold in four towns in 2011.

City	Paola	Cospicua	Sliema	Msida
Number of Cars Sold	30	40	100	50

(a) Use the table to complete the following bar chart.



(b) What is the total number of cars?

Answer: _____

(c) What is the ratio of the number of cars sold in Cospicua to the number of cars sold in Sliema? Express the ratio in its simplest form.

Answer: _____

(8 marks)

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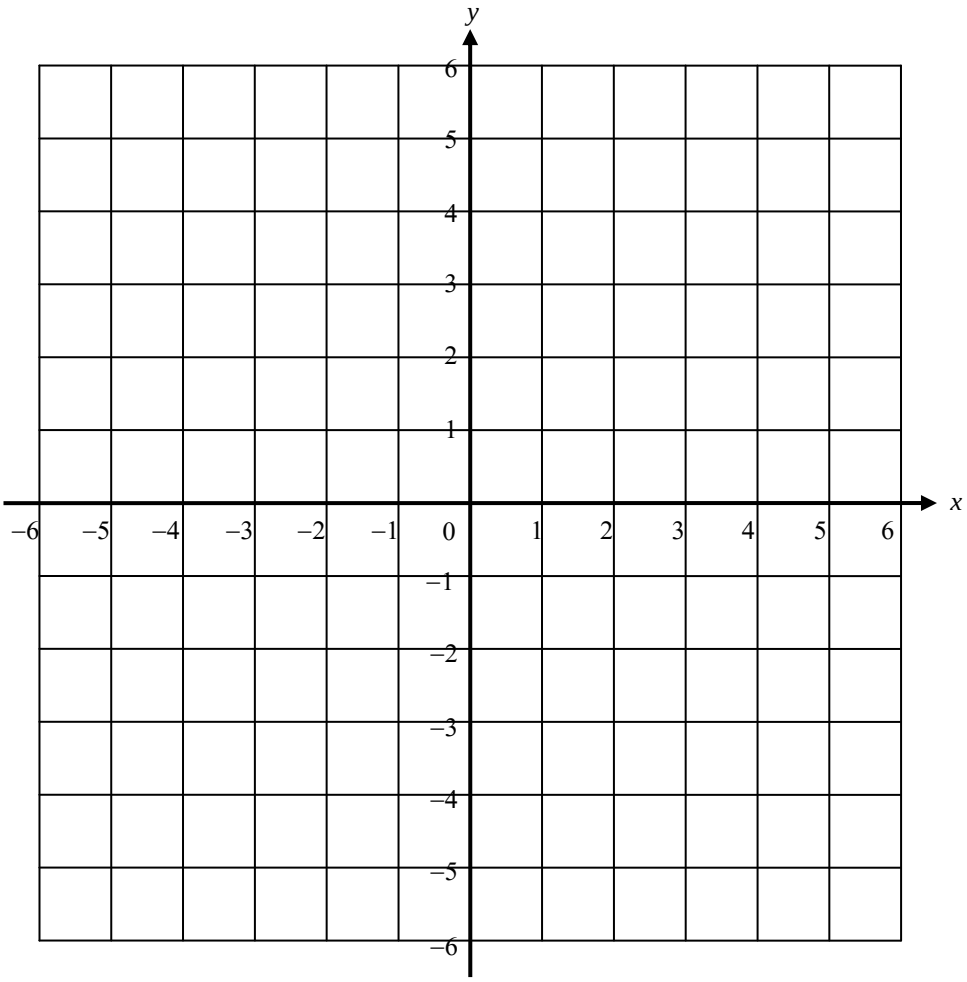
13. (a) Mark the points (–2, –2) and (2, 1) on the grid.

(b) Draw the line passing through these two points.

(c) Use your graph to complete the following pairs of coordinates:

(–6 , ____)

(____ , 4)



(6 marks)

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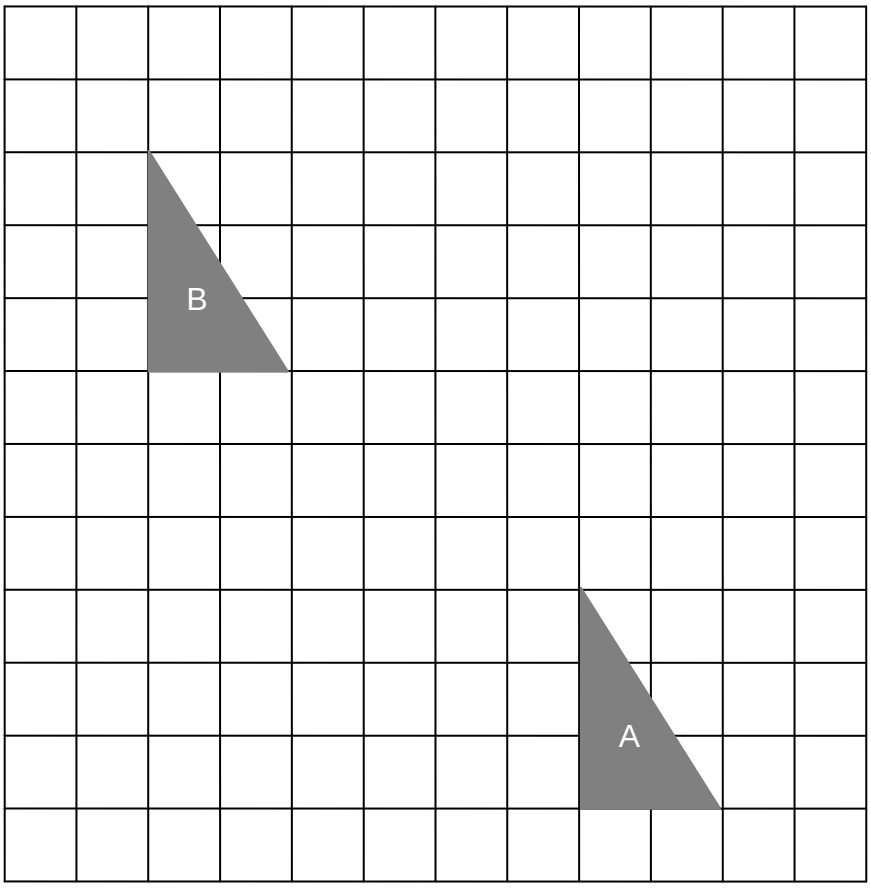
14. (a) (i) A is translated to B by moving

_____ units to the left and _____ units up.

(ii) Draw the translation of B given by the following:

Move B 8 units to the right and 2 units down.



(b) The following are my cousins' ages:

5 12 11 10 26 18 23

(i) What is their **mean** age?

Answer: _____ years

(ii) What is the **median**?

Answer: _____ years

(8 marks)

End of Paper

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