

**JUNIOR LYCEUM AND SECONDARY SCHOOL**  
**ANNUAL EXAMINATIONS 2007**  
Educational Assessment Unit – Education Division

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**FORM 4**

**MATHEMATICS – Scheme C**  
**(Non-Calculator Paper)**

**TIME: 20 minutes**

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**Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_


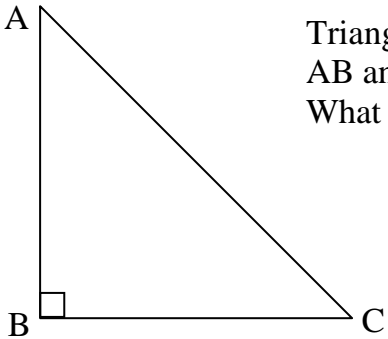
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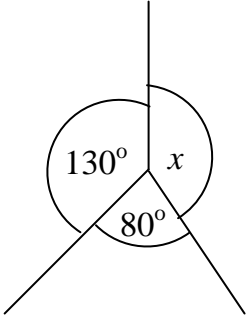
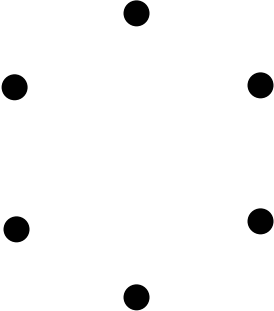
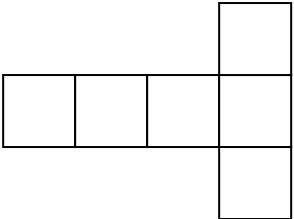
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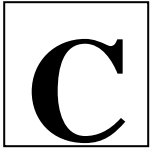
**INSTRUCTIONS TO CANDIDATES**

- Answer all questions. There are 20 questions to answer.
  - Each question carries 1 mark.
  - Calculators, protractors and other mathematical instruments except rulers are not allowed.
  - You are not required to show your working. However space for working is provided if you need it.
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No.	QUESTION	SPACE FOR WORKING (IF REQUIRED)
1.	What is the value of $Lm19 + Lm29 + Lm39$ ? Ans _____	
2.	Choose the biggest value from: (A) $5 \times 2$ (B) $5 + 2$ (C) $5^2$ (D) 52. Ans _____	
3.	How many <b>25c</b> coins make Lm2? Ans _____	
4.	Write 60% as a fraction in its lowest terms. Ans _____	
5.	Five students obtained the following marks in a French test: 48, 72, 39, 65, and 51. What is the <b>range</b> of marks obtained by the students in this test? Ans _____	
6.	A bus left Valletta at 9:30 a.m. The trip to Bugibba took 50 minutes. At what time did the bus arrive? Ans _____	
7.	Write down a <b>prime</b> number between 20 and 30. Ans _____	
8.	What is the value of $\sqrt{64}$ ? Ans _____	
9.	What is the order of rotational symmetry of an equilateral triangle? Ans _____	

No.	QUESTION	SPACE FOR WORKING (IF REQUIRED)
10.	<p>The turtle starts at the position shown. Sketch what the turtle draws after it is given this set of LOGO commands:</p> <p style="text-align: center;">PD RT 90 FD 25 LT 90 FD 70</p>	
11.	<p>Maria rolls a dice numbered from 1 to 6. The probability that she draws number 5 is:</p> <p>(A) 5      (B) <math>\frac{5}{6}</math>      (C) <math>\frac{1}{6}</math>      (D) 1.</p> <p style="text-align: right;">Ans _____</p>	
12.	<p>One complete revolution is made up of:</p> <p>(A) 1 right angle      (B) 2 right angles</p> <p>(C) 3 right angles      (D) 4 right angles.</p> <p style="text-align: right;">Ans _____</p>	
13.	<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  </div> <div> <p>Triangle ABC is right-angled at B. AB and BC are equal in length. What is the size of angle A?</p> <p style="text-align: right;">Ans _____</p> </div> </div>	
14.	<p><math>15 \times 37 = 555</math>. Write down the answer for <math>555 \div 37</math>.</p> <p style="text-align: right;">Ans _____</p>	
15.	<p>Change 8.5 litres to millilitres.</p> <p style="text-align: right;">Ans _____</p>	
16.	<p>Simplify: <math>5a - 2b - 3a - 5b</math>.</p> <p style="text-align: right;">Ans _____</p>	

No.	QUESTION	SPACE FOR WORKING (IF REQUIRED)
17.	 <p>What is the size of angle <math>x</math>?</p> <p>Ans _____</p>	
18.	<p>Use some of the given dots to draw <b>two vertical parallel lines</b>.</p> 	
19.	 <p>The figure shows the net of a:</p> <p>(A) cuboid (B) cube (C) square pyramid (D) hexagon.</p> <p>Ans _____</p>	
20.	<p>Choose the correct co-ordinates for a point on the line graph of the equation <math>y = 3x - 5</math>.</p> <p>(A) (4, 2)    (B) (4, 17)    (C) (4, 7)    (D) (4, -5).</p> <p>Ans _____</p>	



**JUNIOR LYCEUM AND SECONDARY SCHOOL  
ANNUAL EXAMINATIONS 2007**

Educational Assessment Unit – Education Division

**FORM 4**

**MATHEMATICS – Scheme C  
(Main Paper)**

**TIME: 1h 40min**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total Main	Non Calc.	GLOBAL MARK

**DO NOT WRITE ABOVE THIS LINE**

**Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

**INSTRUCTIONS:**

Calculators are allowed. Show all necessary working.  
Answer all questions.

1. a) What is the value of the underlined digit in each of the following?

(i) 732                      \_\_\_\_\_                      (ii) 3256                      \_\_\_\_\_

b) (i) Write 877 correct to the nearest 10.                      \_\_\_\_\_

(ii) Write 6823 correct to the nearest 1000.                      \_\_\_\_\_

(4 marks)

2. a) Arrange in order of size. Start with the smallest.

5·7, 5·07, 3·97, 6·07.                      \_\_\_\_\_

b) (i) Write down 15·0574 correct to 2 decimal places.                      \_\_\_\_\_

(ii) Write down 58·4° correct to the nearest degree.                      \_\_\_\_\_

(4 marks)

3. a) Give the value of:

(i)  $3.25 \times 10^3$  \_\_\_\_\_

(ii)  $36.8 \div 10^2$  \_\_\_\_\_

b) Work out the value of  $n$  when  $n \div 100 = 0.8$ .

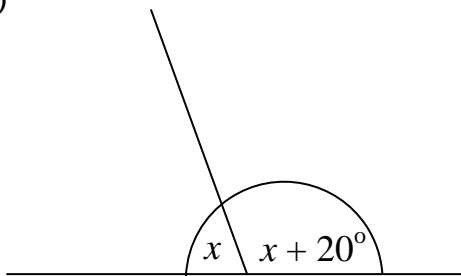
$n =$  \_\_\_\_\_

(4 marks)

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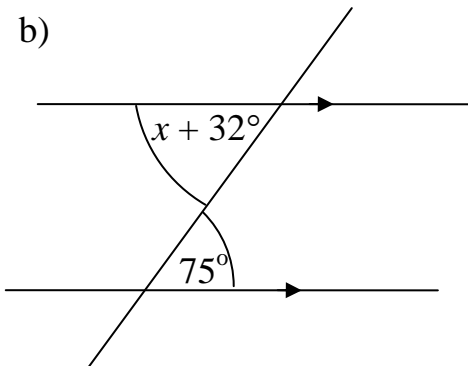
4. Calculate the value of  $x$  in each of the following:

a)



$x =$  \_\_\_\_\_

b)



$x =$  \_\_\_\_\_

(4 marks)

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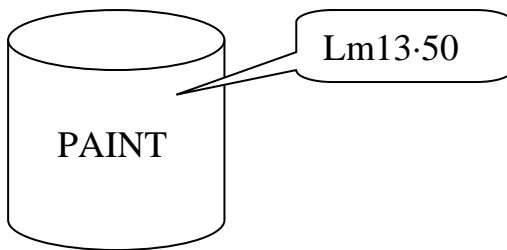
# C

Name \_\_\_\_\_ Class \_\_\_\_\_

5. The total area of the walls in a room is  $54 \text{ m}^2$ . A can of paint covers an area of  $36 \text{ m}^2$ .
- (i) How many cans of paint do I need to buy to paint the walls of the room?

\_\_\_\_\_

- (ii) One can of paint costs Lm13.50. How much do I pay for the cans of paint?



\_\_\_\_\_

(4 marks)

6. The temperatures at noon for a certain week were as follows:

$24^\circ\text{C}$ ,  $22^\circ\text{C}$ ,  $24^\circ\text{C}$ ,  $23^\circ\text{C}$ ,  $21^\circ\text{C}$ ,  $23^\circ\text{C}$ ,  $24^\circ\text{C}$ .

- a) What is the mode in this set of temperatures?

\_\_\_\_\_

- b) Work out the mean temperature for that week.

\_\_\_\_\_

(4 marks)

7. Last Friday a total of 12 aeroplanes landed at Malta International Airport. They came from England (E), Dubai (D), Germany (G) and Italy (I). The aeroplanes arrived as follows:

E E I E I G  
G E I E I D

- a) Use the above information to complete the given table.

Country	E	D	G	I
Number of aeroplanes				

- b) Give your answer in its lowest terms.  
The aeroplanes coming from Italy and Germany are in the ratio of:

:

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(4 marks)

8. Solve the equations:  
a)  $2(x + 3) = 27$

\_\_\_\_\_

b)  $\frac{3x - 5}{2} = 2$

\_\_\_\_\_

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(6 marks)



9. Given that  $y = 3a + b$ .

a) Work out the value of  $y$  when  $a = 6$  and  $b = 5$ .

\_\_\_\_\_

b) Make  $b$  the subject of the formula.

\_\_\_\_\_

c) Find the value of  $b$  when  $y = 25$  and  $a = 4$ .

\_\_\_\_\_

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(5 marks)

10. Mario reads a page of a book in 6 minutes.

a) How many pages does he read in 42 minutes?

\_\_\_\_\_

b) The book contains 70 pages. What fraction of the book does he read in 42 minutes? Give your answer in its simplest form.

\_\_\_\_\_

c) How many hours does he take to read the whole book?

\_\_\_\_\_

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(6 marks)

11. a) Change 3m to cm.

\_\_\_\_\_

b) Work out the value of 5% of 3 m. Give your answer in cm.

\_\_\_\_\_

c) Calculate 2.5% of 3 m. Give your answer in cm.

\_\_\_\_\_

d) Find the value of 12.5% of Lm3. Give your answer in cents.

\_\_\_\_\_

(8 marks)

12. Ten cards are numbered from 1 to 10. A card is drawn at random from the pack. Work out the probability that it shows:

1	2	3	4	5
6	7	8	9	10

a) an **even** number

\_\_\_\_\_

b) a number **smaller** than 8

\_\_\_\_\_

c) a number **bigger** than 10

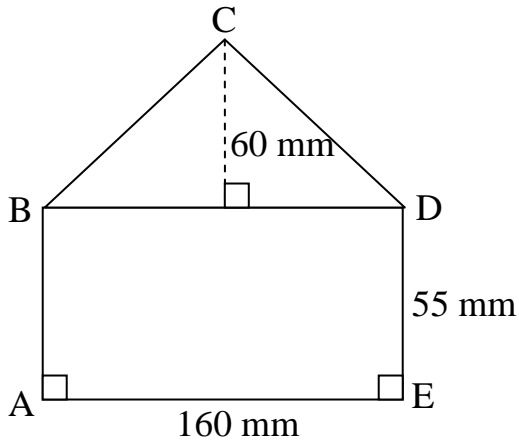
\_\_\_\_\_

d) a **multiple of 3**.

\_\_\_\_\_

(8 marks)

13.



An isosceles triangle BCD in which  $BC = CD$  is joined to a rectangle ABDE as shown in the figure. Give your answers in  $\text{mm}^2$ .

a) Calculate the area of:

(i) the rectangle ABDE

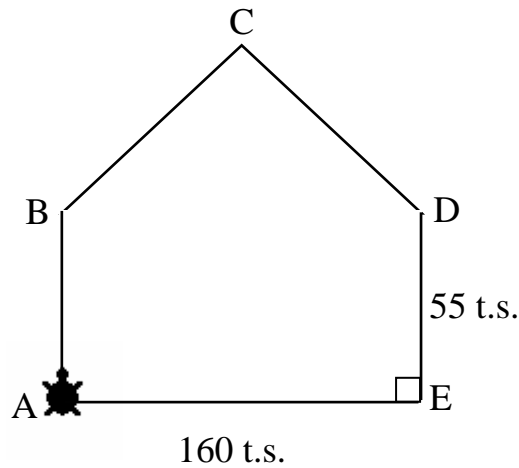
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(ii) triangle BCD

\_\_\_\_\_

(iii) the whole figure ABCDE.

\_\_\_\_\_

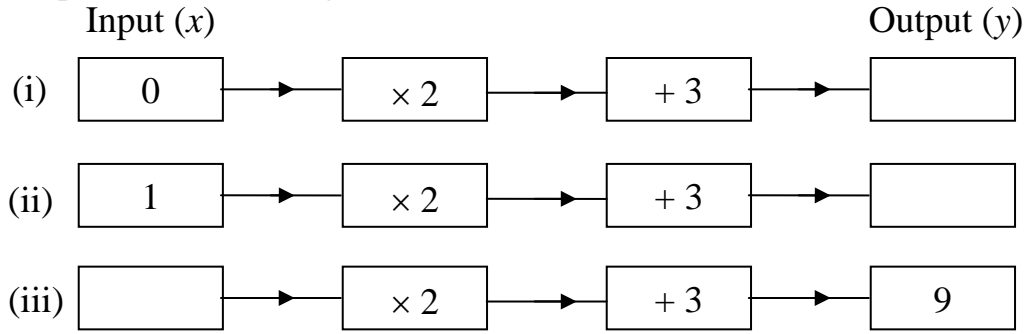


b) The turtle followed a set of LOGO commands and it travelled around the whole figure. The turtle covered a total distance of 470 turtle steps (t.s.). How many turtle steps are there from B to C?

\_\_\_\_\_

(9 marks)

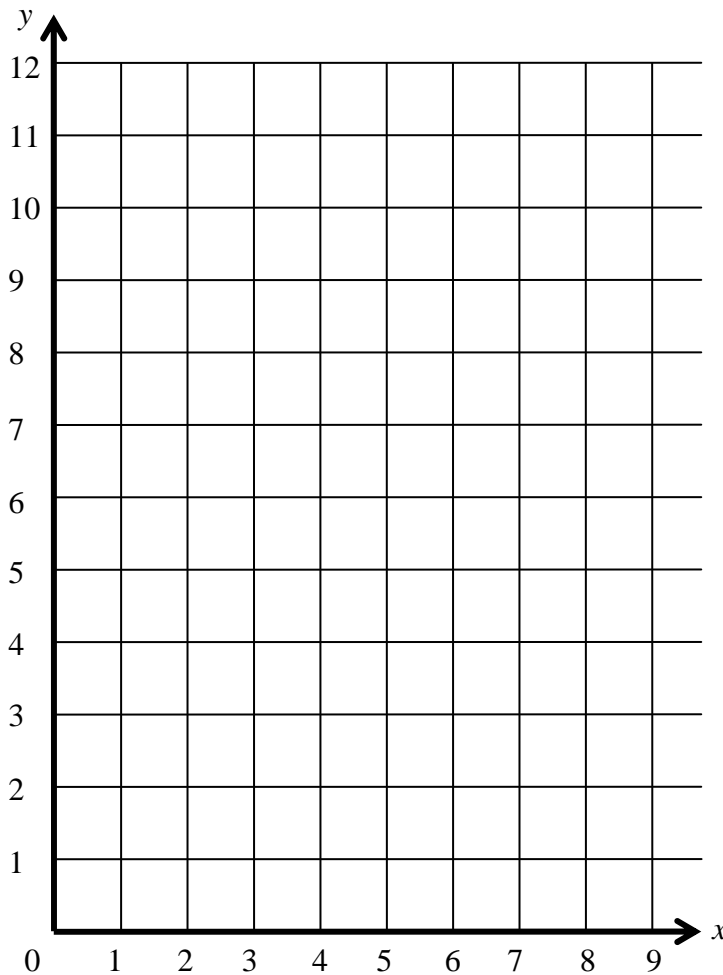
14. a) Complete the following function machines.



b) Use your results in part (a) to complete these pairs of co-ordinates:

( 0, \_\_\_ ) ( 1, \_\_\_ ) and ( \_\_\_, 9 ).

c) On the given grid plot and join the set of co-ordinates obtained in part (b).



d) What is the value of:

(i)  $y$  when  $x = 2$

\_\_\_\_\_

(ii)  $x$  when  $y = 8$ ?

\_\_\_\_\_

(10 marks)

End of examination.