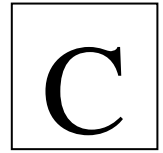


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**ANNUAL EXAMINATIONS 2008**  
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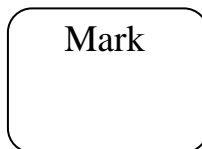
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**FORM 4 MATHEMATICS – SCHEME C (Non-Calculator Paper) TIME: 20 minutes**

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

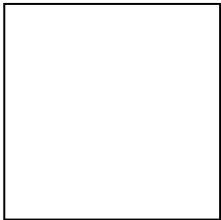
Class: \_\_\_\_\_


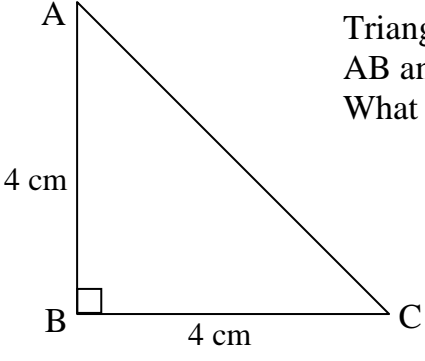


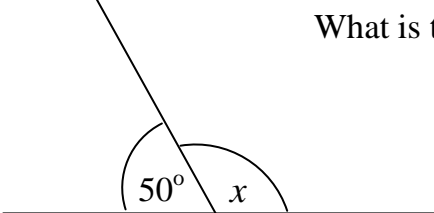
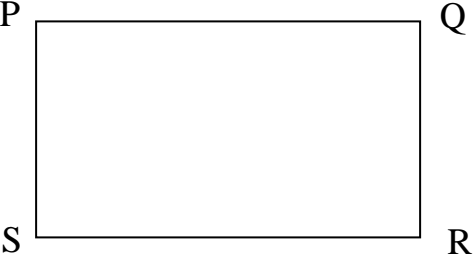
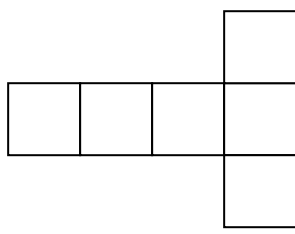
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**INSTRUCTIONS TO CANDIDATES**

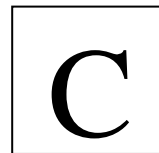
- Answer all questions. There are 20 questions to answer.
  - Each question carries 1 mark.
  - Calculators, protractors and other mathematical instruments except rulers are not allowed.
  - You are not required to show your working. However space for working is provided if you need it.
-

No.	QUESTION	SPACE FOR WORKING (IF REQUIRED)
1.	Work out €50 – €42.  Ans _____	
2.	Choose the <b>smallest</b> value from: (A) $4 \times 3$ (B) $4 + 3$ (C) $3^2$ (D) 34. Ans _____	
3.	Change €4 to cent.  Ans _____	
4.	Write 50% as a <b>fraction in its lowest terms</b> .  Ans _____	
5.	Six students obtained the following marks in an English test: 58, 70, 42, 65, 51 and 65. What is the <b>mode</b> in this set of marks?  Ans _____	
6.	A television program started at 6:30 p.m. It finished at 7:10 p.m. How long did the program last?  Ans _____	
7.	Write down a <b>square number</b> between 10 and 30. Ans _____	
8.	What is the value of $\sqrt{100}$ ?  Ans _____	
9.	 <p>What is the order of rotational symmetry of the square?</p> <p>Ans _____</p>	

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 LT 90 FD 50 RT 90 FD 100</p>	
11.	<p>Martin picks a letter at random from the word <b>SQUARE</b>. The probability that he picks the letter E is:</p> <p>(A) 6      (B) <math>\frac{5}{6}</math>      (C) <math>\frac{1}{6}</math>      (D) 1.</p> <p style="text-align: right;">Ans _____</p>	
12.	<p>An example of an <b>acute angle</b> is:</p> <p>(A) <math>30^\circ</math>                      (B) <math>90^\circ</math></p> <p>(C) <math>180^\circ</math>                      (D) <math>360^\circ</math>.</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 each 4 cm long. What is the area of triangle ABC?</p> <p style="text-align: right;">Ans _____</p> </div> </div>	
14.	<p><math>16 \times 38 = 608</math>. What is the value of <math>1.6 \times 3.8</math>?</p> <p style="text-align: right;">Ans _____</p>	
15.	<p>Change 7000 millilitres to litres.</p> <p style="text-align: right;">Ans _____</p>	
16.	<p>Simplify <math>6a - 2b + 2a - b</math>.</p> <p style="text-align: right;">Ans _____</p>	

No.	QUESTION	SPACE FOR WORKING (IF REQUIRED)
17.	<p style="text-align: center;">What is the size of angle <math>x</math>?</p>  <p style="text-align: right;">Ans _____</p>	
18.	<p>PQRS is a rectangle. Name one of its <b>horizontal</b> sides.</p>  <p style="text-align: right;">Ans _____</p>	
19.	 <p>The figure shows the net of a cube of side 1cm. What is its surface area?</p> <p style="text-align: right;">Ans _____</p>	
20.	<p>The straight line graph with the equation <math>y = 2x - 5</math> cuts the <math>y</math>-axis at a point when <math>x = 0</math>. What is the value of <math>y</math> at this point?</p> <p style="text-align: right;">Ans _____</p>	

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**FORM 4                      MATHEMATICS SCHEME C (Main Paper)                      TIME: 1h 40 min**

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

**DO NOT WRITE ABOVE THIS LINE**

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

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

**INSTRUCTIONS:**

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

1. a) In the number **55555** underline the fives that have a value of 5000 and 50.

b) (i) Write 3257 correct to the nearest 100. \_\_\_\_\_

(ii) Write 536.8 correct to the nearest whole number. \_\_\_\_\_

(4 marks)

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

€5, €8.5, €2.5, €85. \_\_\_\_\_

b) (i) Write down €23.5678 correct to 2 decimal places. \_\_\_\_\_

(ii) Write down €7.30 correct to the nearest euro. \_\_\_\_\_

(4 marks)

3. a) Give the value of:

(i)  $7.5 \times 10^2$  \_\_\_\_\_

(ii)  $538.2 \div 10^3$  \_\_\_\_\_

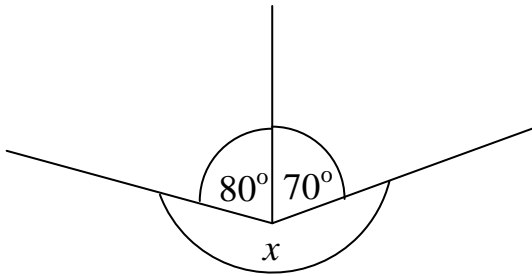
b) Work out the value of  $y$  when  $y \times 10 = 570$

\_\_\_\_\_

(4 marks)

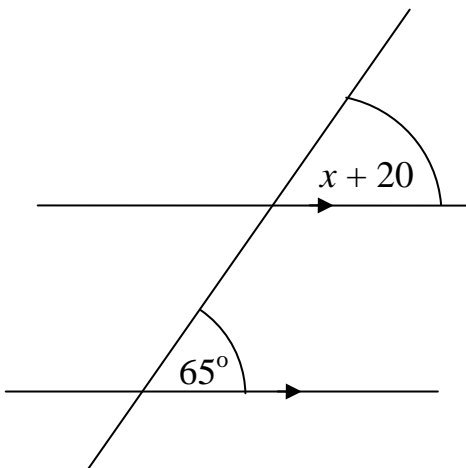
4. Calculate the value of  $x$  in each of the following:

a)



\_\_\_\_\_

b)



\_\_\_\_\_

(4 marks)

Name \_\_\_\_\_

Class \_\_\_\_\_

C

5. a) Change 240m to cm.

\_\_\_\_\_

b) A wheel covers a distance of 120cm in one revolution. How many revolutions does the wheel make to cover a distance of 240m?

\_\_\_\_\_

(4 marks)

6. Simon obtained the following marks in his examinations:

53, 56, 60, 62, 63, 78.

a) Calculate the range of these marks.

\_\_\_\_\_

b) Work out the mean mark for his examinations.

\_\_\_\_\_

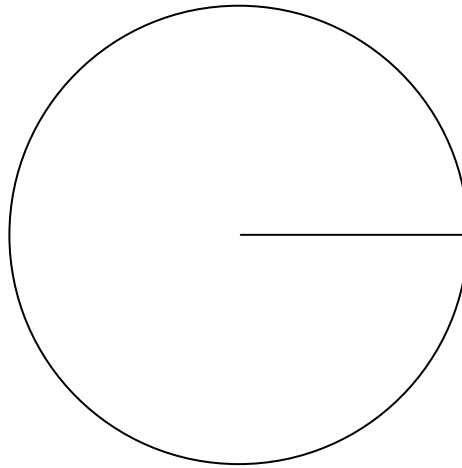
(4 marks)

7. In a group of 36 children, every child owns a single pet.  
The table shows what pet the children own.

- a) Fill in the blank space in the given table to show the number of children who have a dog as a pet.

Pet	Dog	Cat	Bird	Monkey
Number of children		12	9	3

- b) Complete the given pie chart to represent the information in the table  
Label the pie chart clearly.



- c) Give your answer **in its lowest terms**.  
Complete the statement

Children who own a dog : children who own a monkey =  :

- d) Fill in the blank spaces with the correct name of the pets which are in the given ratio.

:  = 1 : 3.

(9 marks)



8. Solve the equations:

a)  $3x - 7 = x + 23$

\_\_\_\_\_

b)  $3(x + 7) = 36$

\_\_\_\_\_

---

(6 marks)

9. Given that  $A = \frac{(a + b)h}{2}$

a) Work out the value of  $A$  when  $a = 12$ ,  $b = 6$  and  $h = 9$ .

\_\_\_\_\_

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

\_\_\_\_\_

c) Find the value of  $h$  when  $A = 400$ ,  $a = 20$  and  $b = 60$ .

\_\_\_\_\_

---

(6 marks)

10. a) Paul saves €5 everyday. How much does he save in 31 days?

\_\_\_\_\_

b) How many books does Anita buy for €100 if each book costs €12.50?

\_\_\_\_\_

---

(4 marks)

11. a) Change 5 hours to minutes.

b) Work out 12 % of 5 hours. Give your answer in minutes.

\_\_\_\_\_

c) Hence or otherwise calculate 88 % of 5 hours.  
Give your answer in minutes.

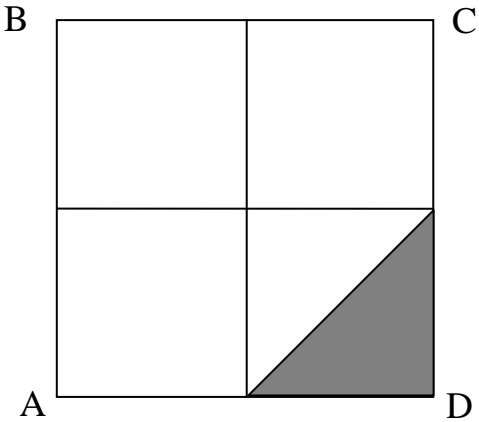
\_\_\_\_\_

\_\_\_\_\_

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(6 marks)

12.



- a) ABCD is a square of side 5.6 cm.  
(i) Calculate the exact area of the square ABCD.

\_\_\_\_\_

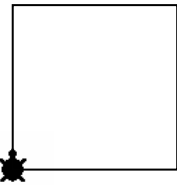
- (ii) What fraction of the square ABCD is shaded?

\_\_\_\_\_

- (iii) Work out the area of the shaded part.

\_\_\_\_\_

- b) The turtle followed a set of LOGO commands to travel around a square in 800 turtle steps (t.s). Complete this set of LOGO commands



PD REPEAT 4 [ FD \_\_\_\_ RT \_\_\_\_ ]

(7 marks)

13.

A six sided dice numbered from 1 to 6 is rolled once.  
Work out the probability that the dice shows:

- a) an **odd** number

\_\_\_\_\_

- b) a **multiple of 3**.

\_\_\_\_\_

- c) a number **bigger** than 5

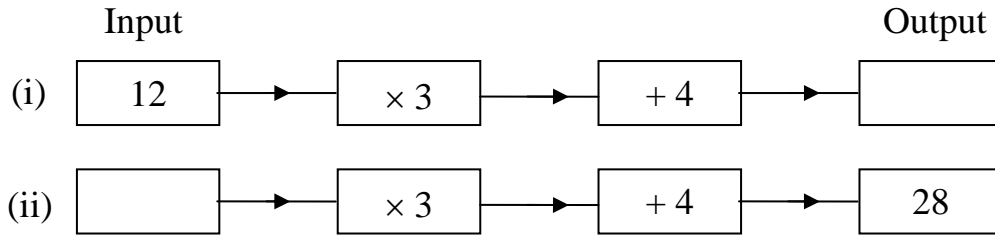
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- d) a number **smaller** than 10

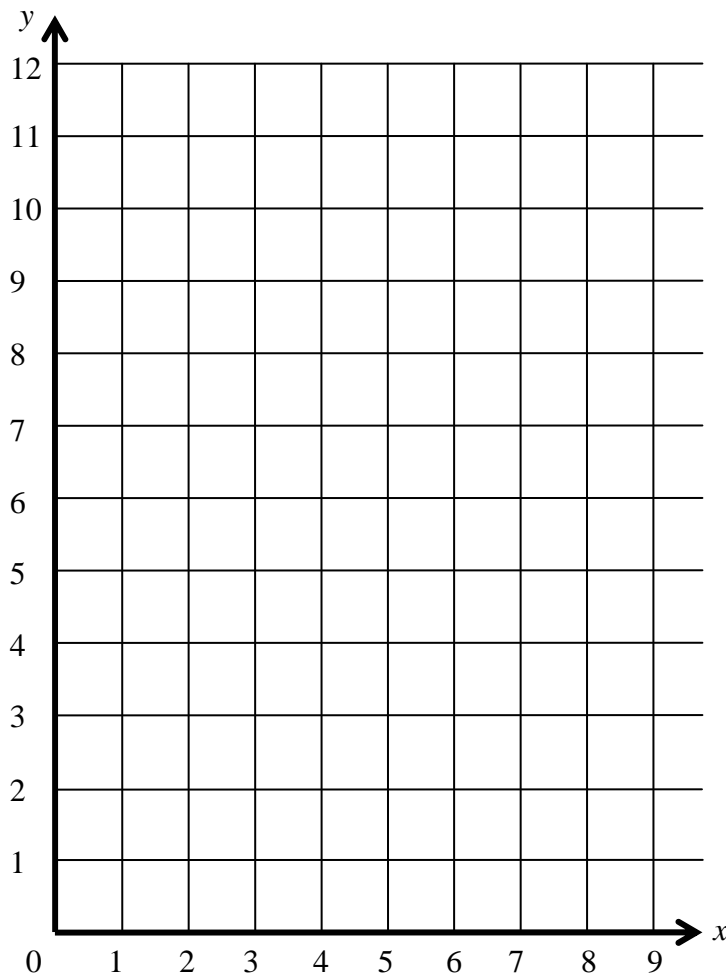
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(8 marks)

14. a) Complete the following function machines.



b) On the given grid plot and join with a straight line the following points (0, 1), (2, 5) and (4, 9).



c) Use your graph to find the value of:

(i)  $y$  when  $x = 3$ .

\_\_\_\_\_

(ii)  $x$  when  $y = 11$ .

\_\_\_\_\_

(10 marks)

End of Examination