SECONDARY SCHOOL ANNUAL EXAMINATIONS 2010

Directorate for Quality and Standards in Education
Educational Assessment Unit

FORM 2 **MATHEMATICS SCHEME C** **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 following:

a)
$$\begin{array}{r} 44.38 \\ +\ 35.02 \\ \hline \\ \hline \end{array}$$

b)
$$\begin{array}{r} 73 \\ -\ 54 \\ \hline \\ \hline \end{array}$$

c) $7 - 9 =$ _____

(2 marks)

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2 Solve these equations:

a) $x - 5 = 7$ $x =$ _____

b) $n \div 6 = 8$ $n =$ _____

c) $9y = 45$ $y =$ _____

(3 marks)

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3 In a lottery, a total of 100 tickets were sold. John bought 5 tickets and Jane did not buy any tickets. What is the probability that:

a) John wins the prize?

_____

b) Jane wins the prize?

_____

(2 marks)

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4 Given that $v = u + 10t$, find the value of v when $u = 20$ and $t = 1{\cdot}5$.

$v =$ _____

(2 marks)

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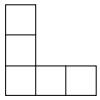
5 Tom was using some squares to make the patterns shown below.
a) Draw **Pattern 4**.

Pattern 1

Pattern 2



Pattern 3

Pattern 4

b) Complete the table:

Pattern Number	1	2	3	4	5
Number of squares	1	3			

(3 marks)

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6 Work out the following, simplifying your answer where possible:

a) $\frac{7}{9} - \frac{5}{9} =$ _____

b) $\frac{7}{11} + \frac{4}{11} =$ _____

c) $\frac{1}{3} \times 765 =$ _____

(4 marks)

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7 Find the mean (average) of the following numbers:

5, 11.4, 8.6, 4, 6, 7, 6.2, 4.8, 9, 8.

_____

(2 marks)

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8 Fill in the blanks. (The first one is done for you.)

257 cm = 2.57 m

45 cm = _____ m

_____ m = 2.6 km

4350 g = _____ kg

_____ g = 1.8 kg

(3 marks)

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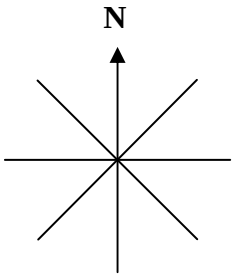
9 How many degrees are there:

a) turning clockwise from North to South-east ?



_____ °

b) turning clockwise from North-west to North-east?

_____ °

(2 marks)

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10 Work out : a) 25% of 80

_____

b) 50% of 76

_____

(2 marks)

End of Paper

SECONDARY SCHOOL ANNUAL EXAMINATIONS 201

Directorate for Quality and Standards in Education
Educational Assessment Unit

FORM 2 **MATHEMATICS SCHEME C** **TIME: 1h 30min**

Main Paper

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

DO NOT WRITE ABOVE THIS LINE

Name: _____ **Class:** _____

- **Answer all questions.**
- **This paper carries 75 marks.**
- **Calculators and mathematical instruments are allowed but all necessary working must be shown.**

1a) Work out:

i) $234.4 + 197.6$ _____

ii) $27.8 - 15.8$ _____

b) Evaluate $\dfrac{234.4+197.6}{27.8-15.8}$

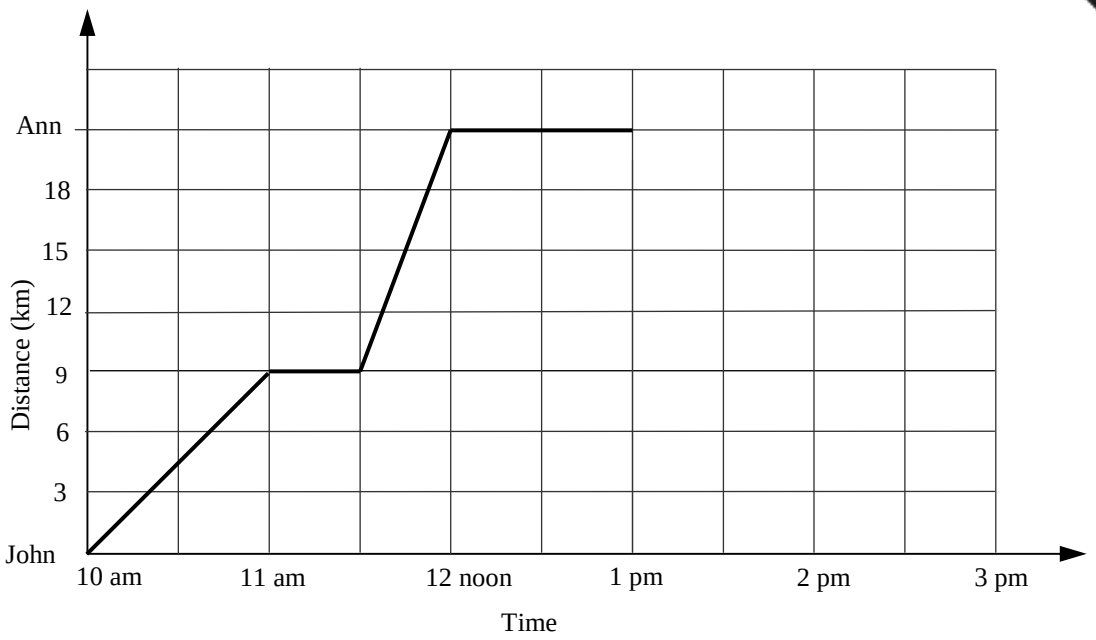
_____

c) Fill in the missing number:

$$36 = \square^{2}$$

(4 marks)

2 John cycled from his house to Ann's house, 21km away. John left his house at 10 and on his way, he stopped at a supermarket. The travel graph below shows part of John's jo



a) At what time did John arrive at Ann's house? _____

b) How long did John stay at the supermarket? _____

c) John left Ann's house at 1 pm and took 2 hours to get back to his house.
   i) Draw a straight line on the graph to show John's journey on his way back home.
   ii) How many hours was John away from home?

_____

(5 marks)

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3 Divide €931 between Jack and Jill in the ratio 2 : 5.

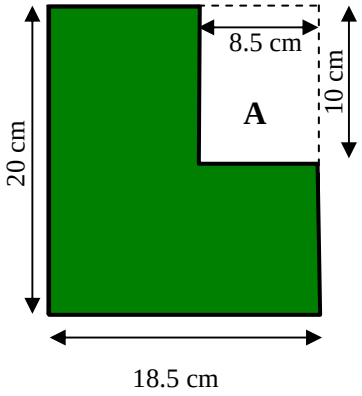
Jack: €_____

Jill: €_____

(5 marks)

Name: _____ **Class:** _____

4 Maria has a rectangular piece of cardboard. This is 20 cm long and 18.5 cm wide. She wants to cut out the rectangle A.



a) Calculate the area of the whole cardboard.

_____ cm^2

b) What is the area of rectangle A?

_____ cm^2

c) What is the area of the shaded part?

_____ cm^2

(6 marks)

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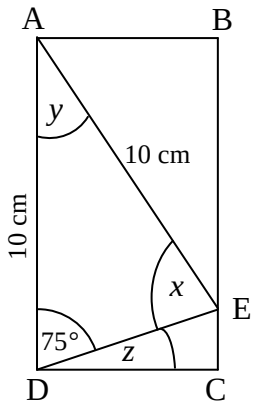
5 In rectangle ABCD, AD = 10 cm.
E is a point on BC such that AE = 10 cm; angle ADE = 75°.



a) Fill in the blanks:
Triangle DAE is called an _____ triangle

because 2 of its sides are _____.

b) find the size of:

i) angle *x* x = _____ °

ii) angle *y*

y = _____ °

iii) angle *z*

z = _____ °

(8 marks)

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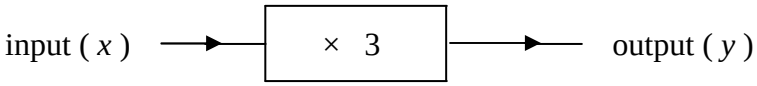
6 a) Use the number machine to complete the table below:



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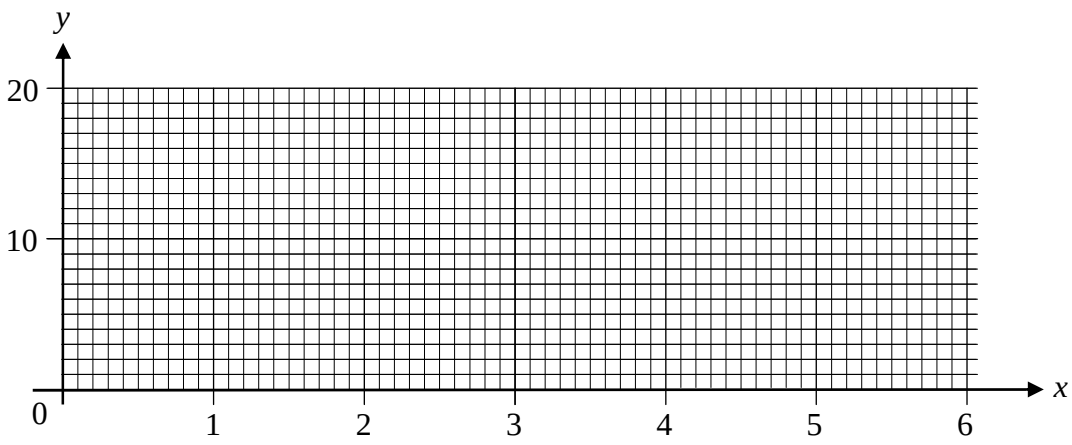
x	0	1	3	5	
y		3			18

b) Use your table to draw the graph of $y = 3x$.



(8 marks)

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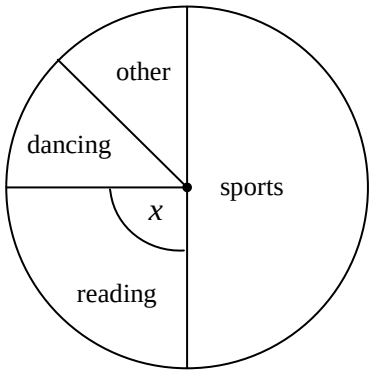
7 A group of 200 students were asked what hobby they have. The Pie chart shows the results of this survey.



a) How many students prefer sports?

_____

b) Fifty students prefer reading. What is the size of angle x?

°

x = _____

c) The number of students who prefer dancing is equal to the number of students who have other hobbies. How many students have other hobbies?

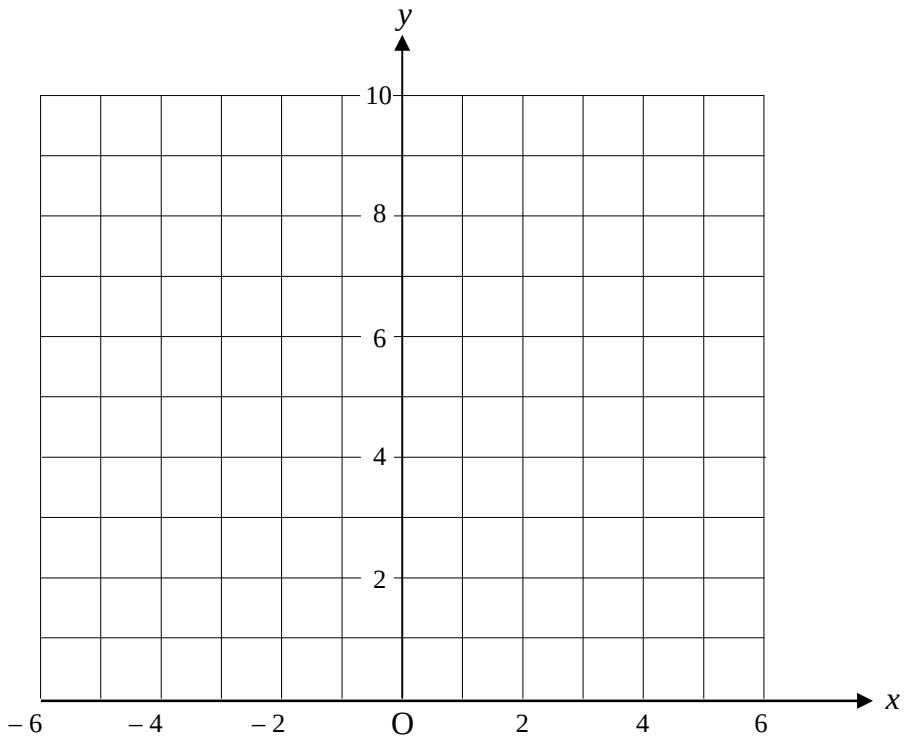
_____

(8 marks)

8 a) A square has rotational symmetry of order _____.

b) On the grid provided plot and label the following points:
A (0 ,10) B (1 , 7) C (4 , 7) D (2 , 5) E (3 , 2) F (0, 4)
Join A to B, B to C, C to D and so on.

c) Using the *y* axis as the line of symmetry, draw the image of shape ABCDEF.



(11 marks)

9 On the given line mark point B such that AB =10 cm.
At A draw line AC such that angle A = 45° and AC = 7 cm. Join BC and measure angle C.

A

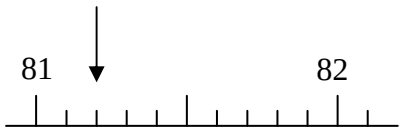
°

Angle C = _____

(6 marks)

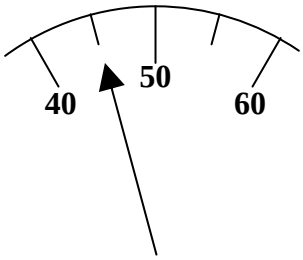
10 a) What number is the arrow pointing to on the two scales below?

i)



_____

ii)



_____

b) i) Round 783 correct to the nearest 10 _____

ii) Round 1876 correct to the nearest 100 _____

(4 marks)

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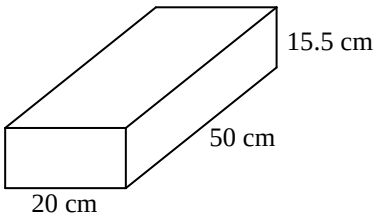
11 The diagram represents a rectangular brick that is 20 cm wide, 15.5 cm high and 50 cm long.



a) Calculate the volume of the brick.

_____ cm^3

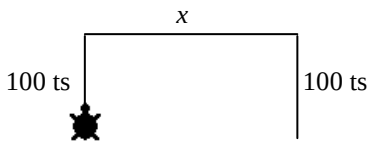
b) If each brick weighs 31.4 kg, calculate the weight of 130 similar bricks.

_____ kg

(4 marks)

12 Paul wants to draw the shape shown using LOGO. The total length of the 3 sides is 4[illegible] steps (ts), and each vertical side is 100 turtle steps long.

a) Work out the value of *x*.



x = _____ ts

b) Fill in the blanks in this set of commands so that the turtle draws the diagram shown above:

PD FD 100 RT 90 FD _____ RT _____ FD _____

(6 marks)

END OF PAPER

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