

REGISTRATION CENTRE NUMBER		CENTRE NAME	
CANDIDATE'S FULL NAMES			
CANDIDATE IDENTIFICATION NUMBER	SUBJECT CODE 0570	PAPER NUMBER 2	
FOR OFFICIAL USE ONLY (Candidate Random Code) 			
CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD ORDINARY LEVEL EXAMINATION			
SUBJECT TITLE MATHEMATICS	SUBJECT CODE 0570	PAPER NUMBER 2	
EXAMINATION DATE: JUNE 2019			

Two and a Half hours

Enter the information required in the boxes above.

This paper is arranged in two sections, A and B. Answer ALL questions in Sections A and B.

Section A: Answer ALL the questions in the spaces provided. The mark allocation for each question is indicated.

Section B: All questions in Section B carry equal marks.

You are reminded of the necessity for good English and orderly presentation in your answers.
For calculations, you are advised to show all the steps in your working, giving your answer at each stage.

Calculators are allowed.

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Marked by: _____ Signature: _____ Date: _____ Checked by: _____ Signature: _____ Date: _____	SCORE 
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SECTION A

ANSWER ALL 15 QUESTIONS IN THIS SECTION

1. Evaluate $15 - 12 \div 4 \times 16 + 2$

$$\begin{aligned} &= 15 - 3 \times 16 + 2 \\ &= 15 - 48 + 2 \\ &= 15 - 50 \\ &= -35 \end{aligned}$$

(4 marks)

2. A household consumed 300 units of electricity where the first 220 units are billed at 50 FCFA per unit and the rest at 79 FCFA per unit,

- (a) Find the number of units to be paid at 79 FCFA

$$300 - 220 = 80$$

- (b) Calculate the total amount paid by this household in FCFA

$$\begin{aligned} &220 \times 50 = 11000 \\ &80 \times 79 = 6320 \\ &11000 + 6320 = 17320 \end{aligned}$$

(6 marks)

3. Two cows and two goats cost 560,000 FCFA and one cow and three goats cost 400,000 FCFA.

- (a) Write two equations in two variables to represent the above statement.

- (b) Find the cost of each.

$$2c$$

- (c) Find the total cost of a goat and a cow.

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(7 marks)



Find, to 1 decimal place, the length of an arc PQ which subtends an angle of 60° at the centre of a circle with radius 5.6 cm, taking $\pi = \frac{22}{7}$.

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.....

.....

(4 marks)

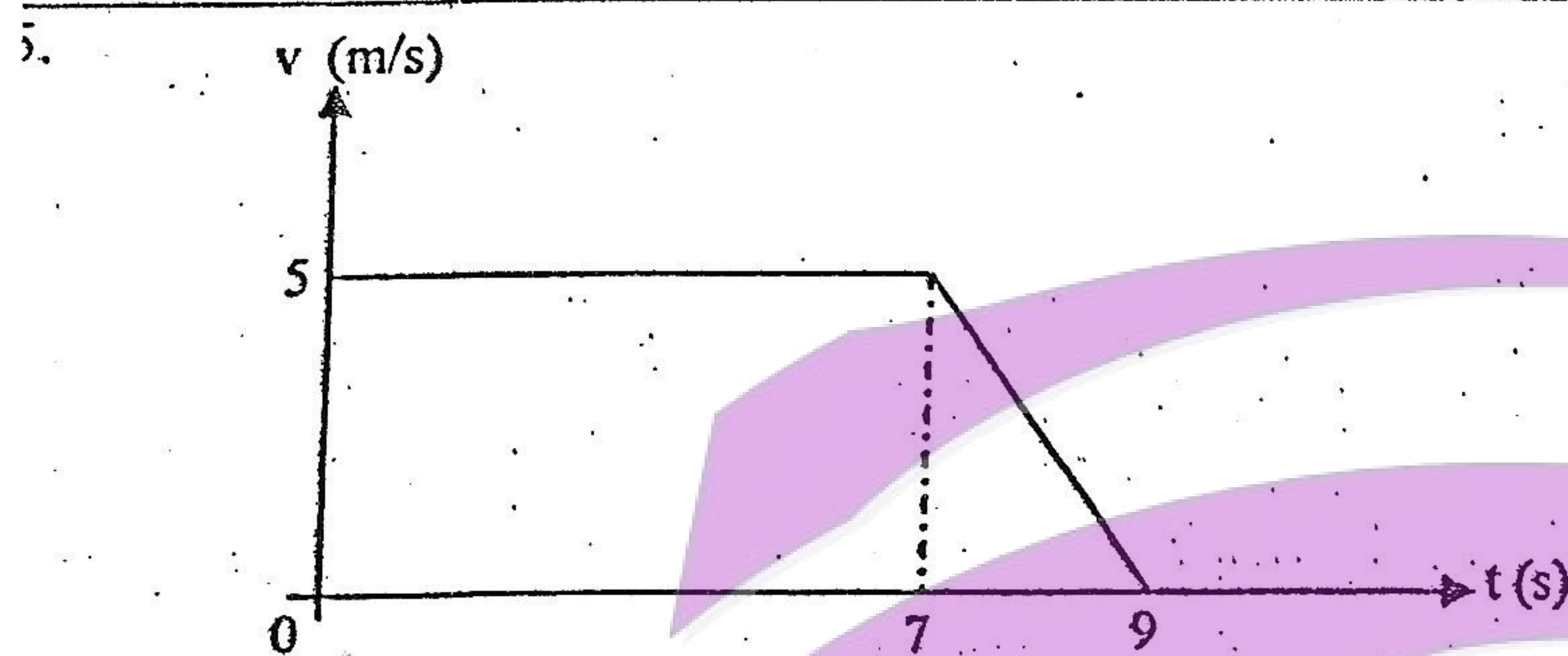


Figure 1 is a (v-t) graph where the distance covered by a moving object is the area under the graph. Calculate the distance covered in 9s.

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(5 marks)

A ship leaves port A on a bearing of 030° . After sailing for 50km to Port B, it changes direction on a bearing of 120° and continues in the direction for 40 km to Port C.

Find

(a) The distance of C from A, to 2 decimal places.

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.....

.....

.....

.....

(b) The bearing of B from C

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.....

.....

.....

(6 marks)

5

Turn Over



7. Given that $x^2 - 5x + 4 \leq 0$

(a) Find the range of values of x which satisfy the inequality.

.....

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.....

(b) Represent the solution on a number line.

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.....

(6 marks)

8. The interior angle of a regular polygon is 108°

Find

(a) the value of an exterior angle of this regular polygon

.....

.....

.....

(b) the number of sides of this polygon.

.....

.....

.....

(c) Write the special name of this regular polygon.

.....

.....

(5 marks)

9.

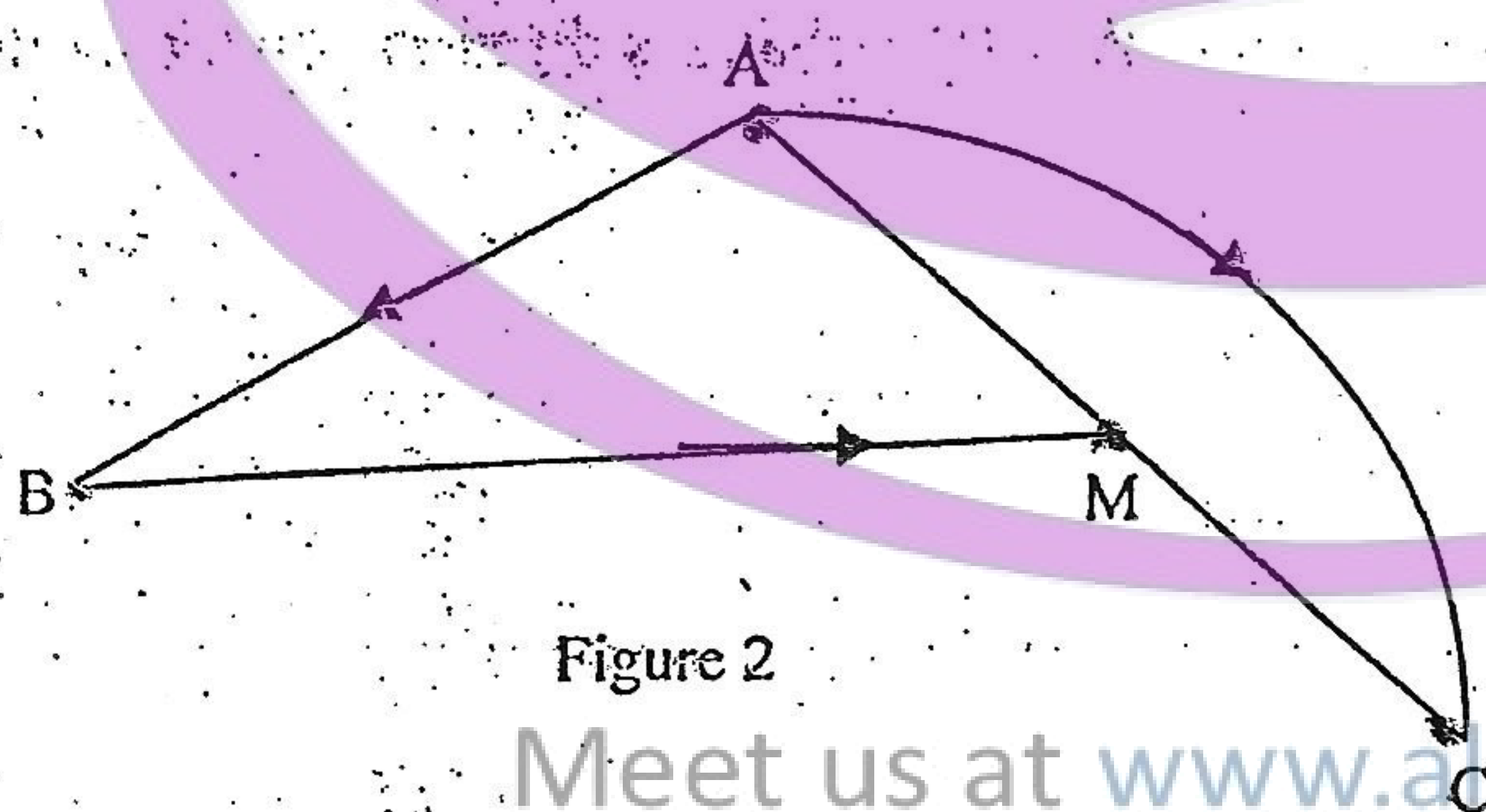


Figure 2

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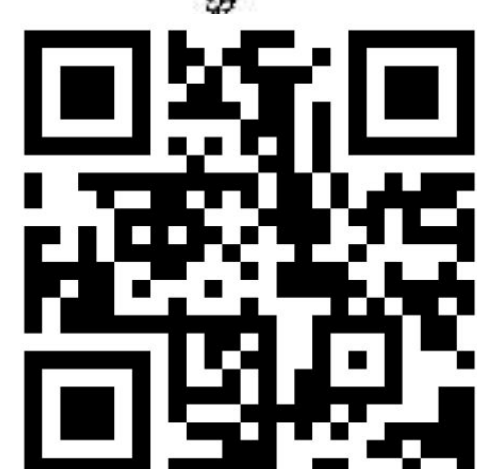
Figure 2 shows a road network for towns A, B, C, and M

Determine

(a) The number of nodes at M

.....

.....



(b) the number of links between
A and B

A and C

(c) Find the number of arcs involved in the network.

(5 marks)

1. Given that $P = \begin{pmatrix} 2 & 3 \\ 1 & 4 \end{pmatrix}$, $M = \begin{pmatrix} a & b \\ -1 & 2 \end{pmatrix}$, $N = \begin{pmatrix} -1 & 10 \\ -3 & 10 \end{pmatrix}$ and $PM = N$

Find

(a) PM in terms of a and b

(b) the values of a and b

(6 marks)

Two statements are such that

P: peter is studying English Language

q: Peter will live in Britain

(a) Translate $p \rightarrow q$ in ordinary English.

Write the notation and translate in ordinary English the

(b) 'The converse of $p \rightarrow q$

(c) The inverse of $p \rightarrow q$

(6 marks)

12.

The sum, S_n of the first n terms of a sequence of real numbers is given by $S_n = n(n+5)$

Find

(a) The first term

(b) The 9th term

(c) The sum of the first 10 terms.

(6 marks)

13. Given that $\tan \theta = \sqrt{3}$ and θ is an acute angle

Find

(a) $\sin \theta = ?$

(b) the value in degrees of θ

(6 marks)

14.

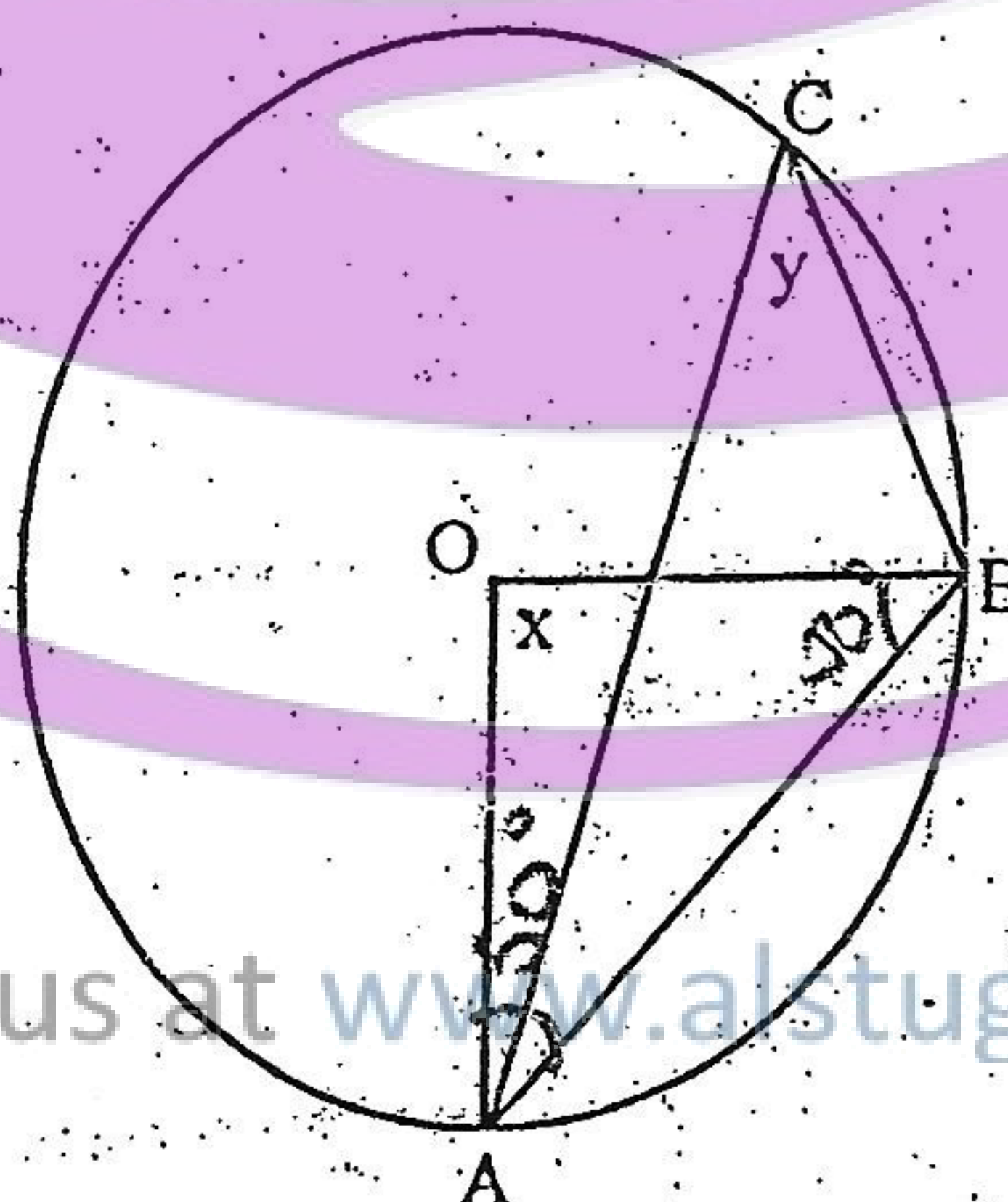


Figure 3

Figure 3 is a circle with centre O and angle $ABO = 50^\circ$

Calculate the angles marked x and y

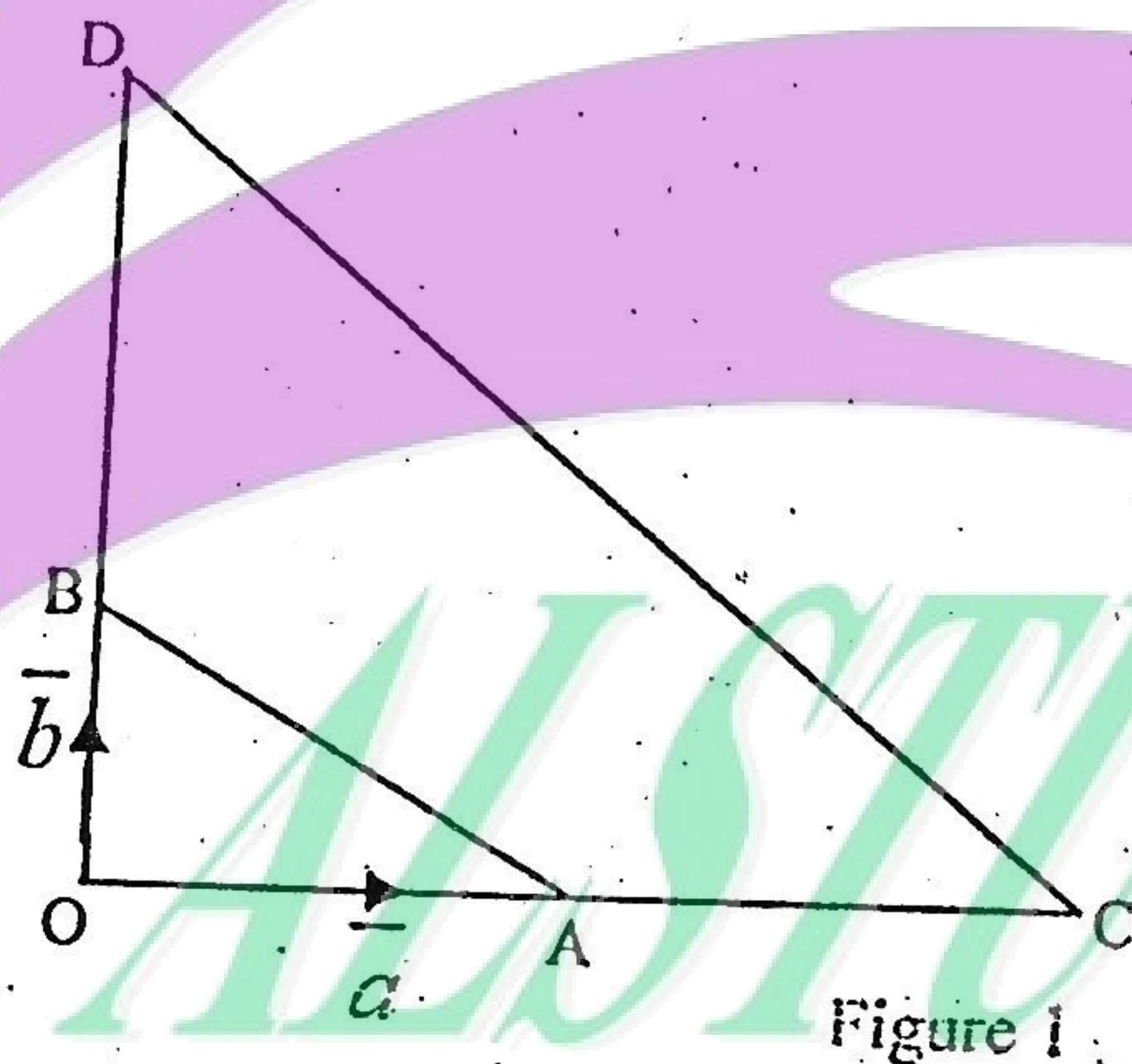
(6 marks)

3. (i) The table below shows the number of pears picked by some children.

No of pears	1	2	3	4	5
No of children	3	8	4	x	2

- (a) Determine the total number of children in terms of x
Given that the mean is 3,
(b) Find the value of x
(c) State the modal number of pears
(d) Determine the total number of children involved

(ii)



In figure 1, $OA = \vec{a}$, $OB = \vec{b}$ and $OD = 4OB$

Find in terms of $\vec{a}$ and $\vec{b}$

(a) $\vec{AB}$

Given that $OA:AC = 1:3$, find the vectors

(b) $\vec{OC}$

(c) $\vec{CD}$

(d) State the relationship between the vectors $\vec{AB}$ and $\vec{CD}$

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4. (i) Bih, Epie and Ngono invested some money in a business and made a total profit of 468000 FCFA. They share 10% of the profit equally.

Find

- (a) The amount shared
- (b) The amount each person received
- (c) The remainder of the profit

The remainder was shared among Bih, Epie and Ngono in the ratio 3:5:7 respectively,

Calculate

- (d) Bih's share of the remainder
- (e) The total amount received by Bih

- (ii) In a certain class of a school, the sets M, P and C are defined as:

$M = \{x: x \text{ is a student who studies Mathematics}\}$

$P = \{x: x \text{ is a student who studies physics}\}$

$C = \{x: x \text{ is a student who studies Chemistry}\}.$

Express the following in ordinary English

- (a) $P \subset M$
- (b) $n(M \cap P \cap C) = 25$

Express the following statements in set notation

- (c) 15 students study mathematics and physics but not chemistry.
- (d) 7 students study Chemistry only.

Given that $n(C) = 37$ and $n(M) = 53$,

- (e) Draw a Venn diagram to represent the information above.

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