

**ENTEBBE MUNICIPAL
EXAMINATION BOARD
MOCK EXAMINATION - 2023
MATHEMATICS**

Duration: 2 Hours: 30 Minutes

INDEX NO:

Random No.	Personal No.

Candidate's Name : _____

Candidate's Signature: _____

District ID No.

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Read The Following Instructions Carefully:

1. Do not write your school or district name anywhere on this paper.
2. This paper has two sections: A and B. Section A has 20 questions and section B has 12 questions.
3. Answer all questions. All the working for both sections A and B must be shown in the spaces provided.
4. All working must be done using a blue or black ball point pen or ink. Any work done in pencil other than graphs and diagrams will not be marked.
5. No calculators are allowed in the examination room.
6. Unnecessary changes in your work and handwriting that cannot easily be read may lead to loss of marks.
7. Do not fill anything in the table indicated: "For Examiners' use only".

FOR EXAMINERS' USE ONLY		
QN. NO.	MARKS	EXR'S NO.
1 – 5		
6 – 10		
11 – 15		
16 – 20		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		
TOTAL		

Turn over

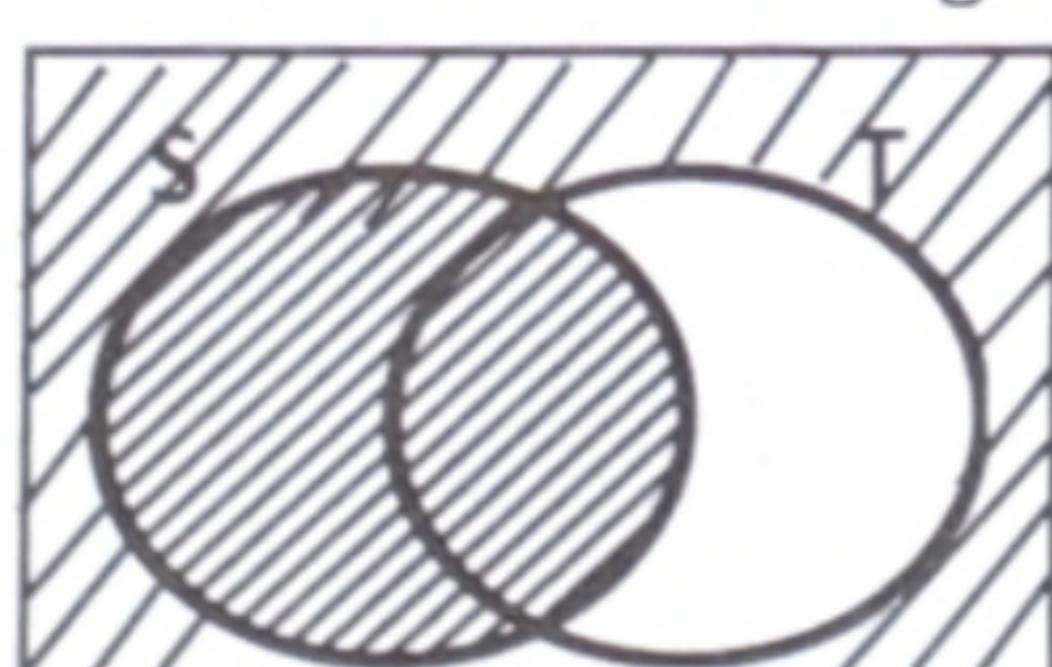


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SECTION A (40 MARKS)

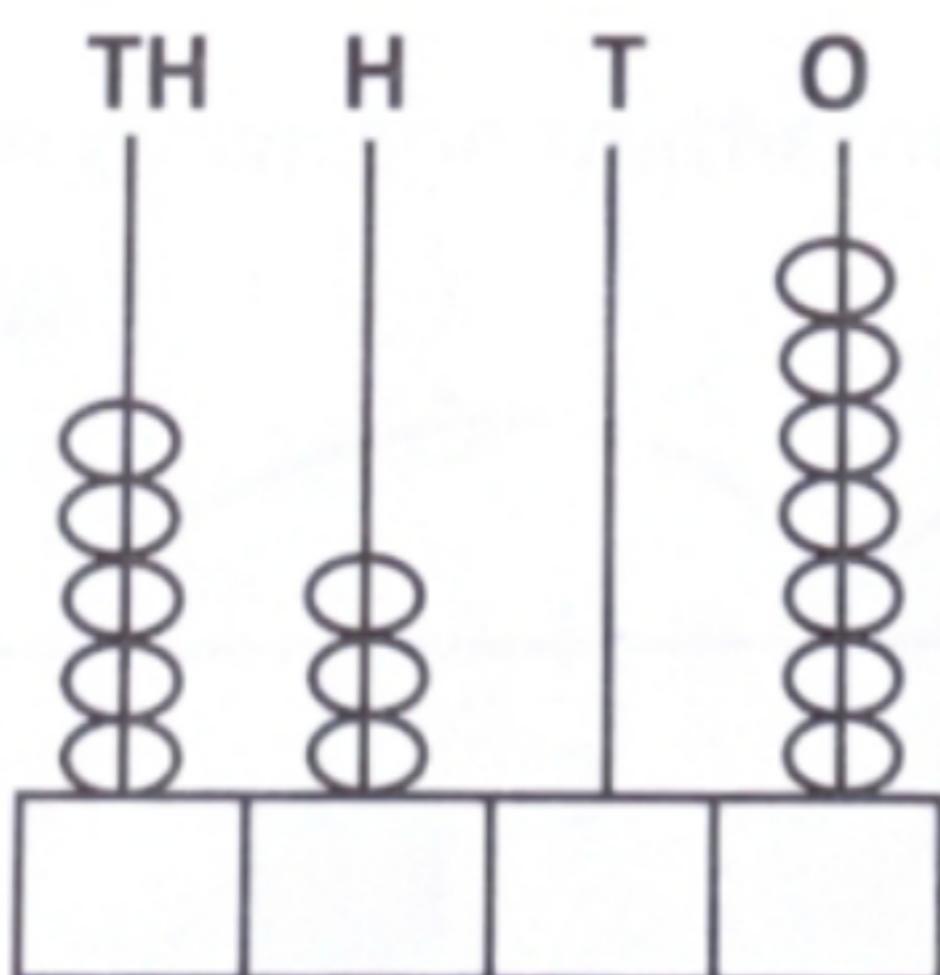
1. Workout: $204 + 145$
 2. Write in figures; Ninety three thousand, fifteen.
 3. Find the cube of the next missing number in the sequence:
0, 1, 3, 6, _____
 4. Workout: $111_{\text{two}} \times 11_{\text{two}}$

5. Describe the shaded region in the Venn diagram below.



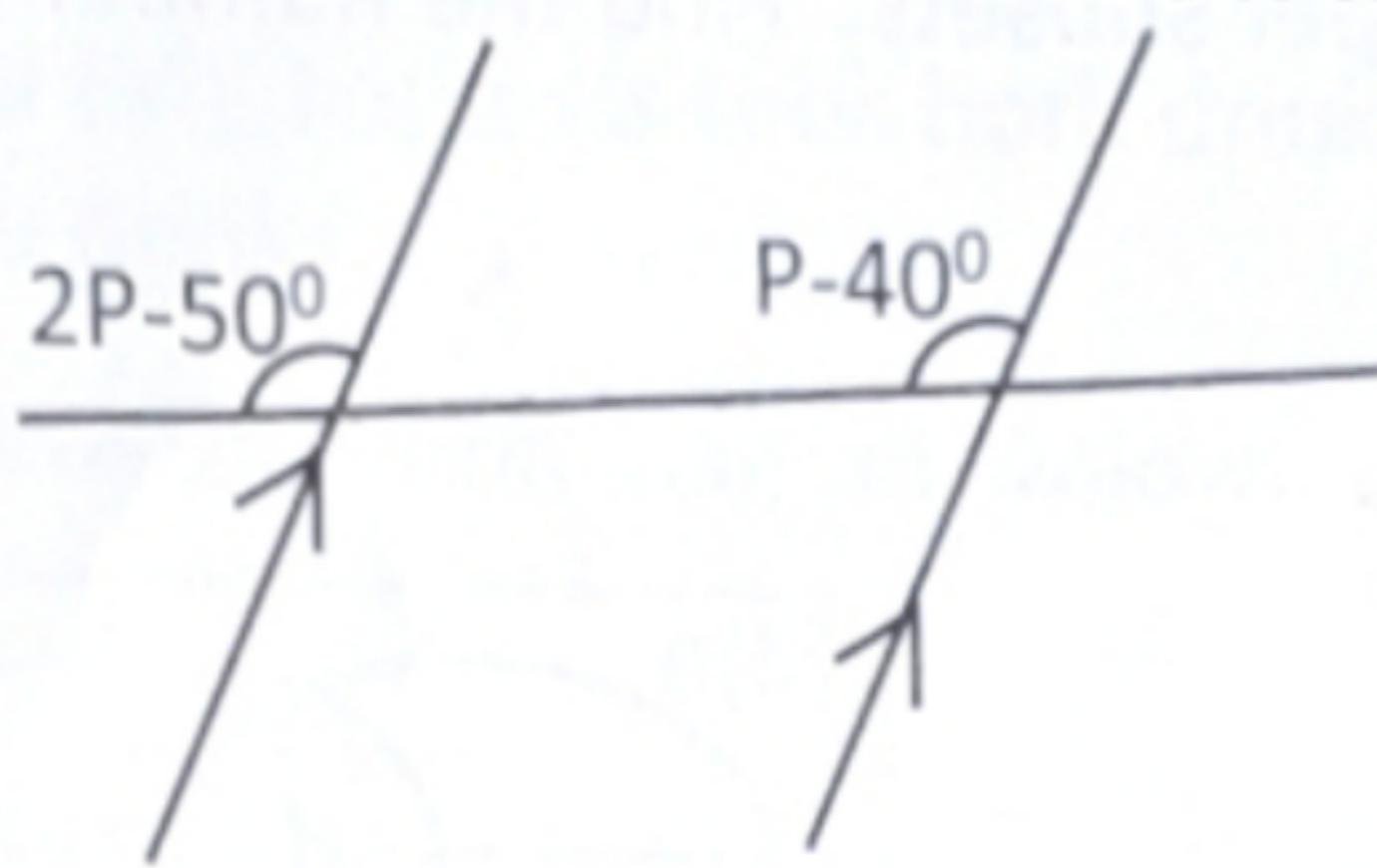
6. Workout: $\frac{2}{3} - \frac{1}{4}$

7. Find the median of 3, 9, 5, 7, 8 and 4.
8. Using a sharp pencil, ruler and a pair of compasses only, construct an angle of 105° .
9. The distance from the first mango tree to the last mango tree planted in a straight line is 660metres. How many mango trees are in the line if the interval between the trees is 11metres?
10. Write the number shown on the abacus below.



11. A motorist took 2 hours and 45 minutes to cover a journey moving at a speed of 80km/hr. How far was the journey?
12. Simplify: $\frac{n^4 \times n^3}{n^5}$
13. If 1 Us dollar costs Ugsh. 3,800 and 1 Ksh costs Ugsh. 35. How many Us dollars can one get from 76,000 Kenya shillings?
14. Solve for X: $5X - 2(X - 4) = 32$

15. Study the diagram below and use it to find the value of p.



16. Express CLXVI in Hindu Arabic numerals.

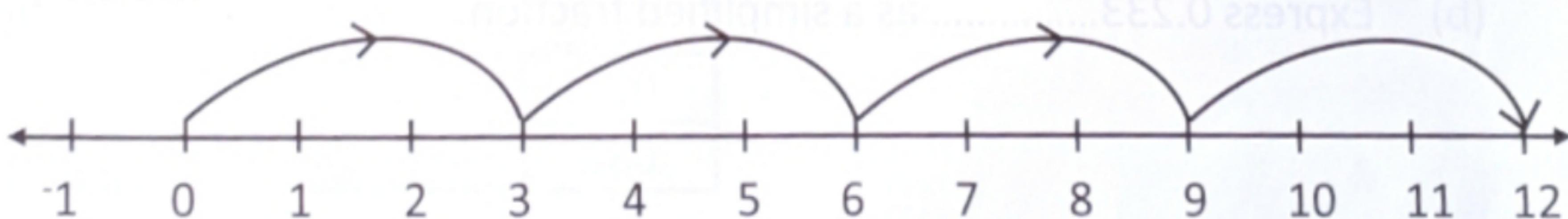
(1 mark) (1 mark)



17. Odeke had $\frac{3}{5}$ of a sugarcane. He gave $\frac{1}{3}$ of it to Ariko. What fraction of the sugarcane did he remain with?



18. Write down the mathematical statement represented on the number line below.



19. Given that Set M has 15 proper subsets. Find the number of elements in set M.

20. The perimeter of the figure below is 36metres. Find its diameter.



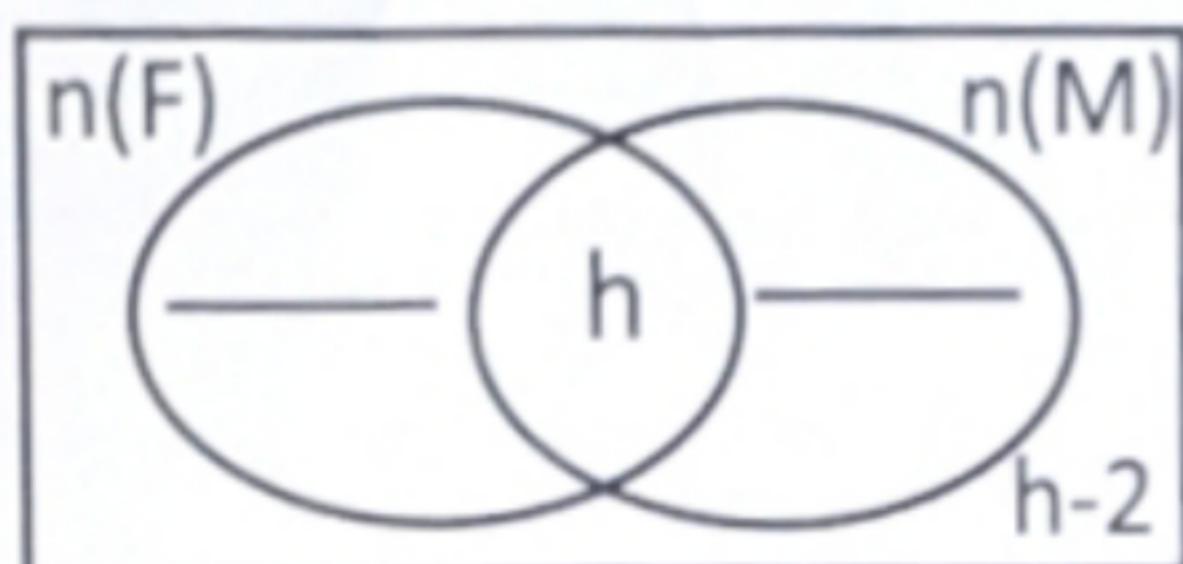
SECTION B (60 MARKS)

21. (a) Simplify: $\frac{3.6 + 0.15}{5.2 - 2.7}$ (3marks)

(b) Express 0.233..... as a simplified fraction. (2marks)

22. At a party, $(2h+8)$ guests took Fanta (F) only, $(5h-4)$ guest took only Mirinda (M), h guests took both drinks while $(h-2)$ guests took neither of the two drinks.

- (a) Complete the Venn diagram below. (2marks)



- (b) If 32 guests took only one type of drink, find the value of h . (2marks)

- (c) How many guests did not drink Mirinda? (2marks)

23. The table shows marks scored by some P.7 pupils in St. Kizito Primary school.

- (a) Complete the table. (3marks)

Marks	Frequency	Total
70	3	_____
_____	2	110
40	_____	280

(b) Calculate the average mark.

(2marks)

24. Using a sharp pencil, ruler and a pair of compasses only, Construct a parallelogram DEFG in which $DE = 7.5\text{cm}$, $DG = 5\text{cm}$ and angle $GDE = 45^\circ$. Drop a perpendicular line from G to meet DE at Y. (5marks)

(b) Measure line GY.

(1mark)



25. Betty is 3 times as old as Jane. Four years ago their total age was 48 years.
- (a) How old is Betty? (3marks)
- (b) How old will Jane be in 7 years' time? (2marks)
26. Layton went shopping with a fifty thousand shilling note and bought the following items;
- ◆ $1\frac{1}{2}$ kg of sugar at sh. 4,500 per kg.
 - ◆ 3 bars of soap at sh. 15,000.
 - ◆ 7 apples at sh. 3,000 for 3 apples.
 - ◆ 750gms of salt at sh. 1600@kg
- (a) Find Layton's total expenditure. (4marks)

(b) If Layton was given a discount of 10%, find her discount. (2marks)

27. Kapere borrowed some money from Stanbic bank at an interest rate of 12½% per year for 9 months amounting to sh. 700,000. How much money did Kapere borrow? (4marks)

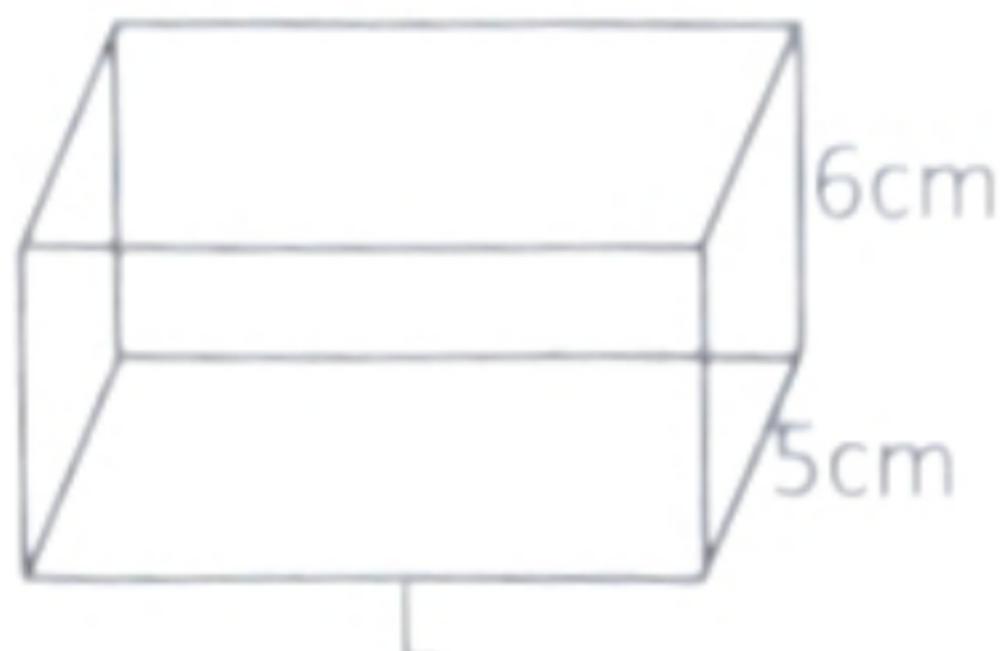
28. The sum of the interior angles of a regular polygon is 1260° . Calculate the size of each exterior angle. (4marks)

29. The table below shows the arrival and departure time for a taxi moving from Kampala to Jinja.

Town	Arrival	Departure
Kampala		08:45hrs
Seeta	10:30hrs	10:35hrs
Mukono	11:00hrs	11:15hrs
Lugazi	12:05hrs	12:15hrs
Jinja	13:00hrs	

- (a) How long does the taxi take to travel from Seeta to Lugazi? (2marks)
- (b) For how long does the taxi stay at Mukono? (1mark)
- (c) If Jinja is 85km from Kampala, calculate the taxi's average speed. (2marks)

30. The total length of all the edges in the figure below is 80cm.

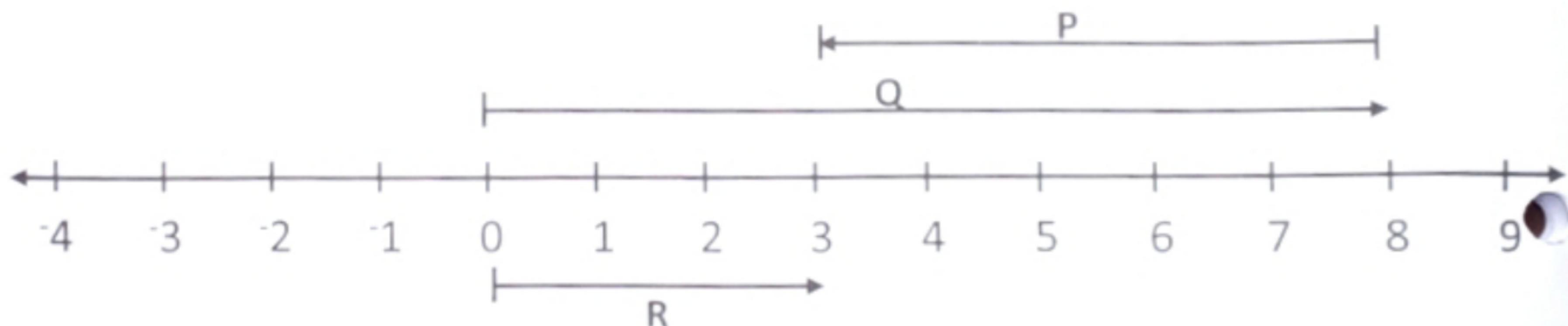


- (a) Find the value of L in cm. (2marks)

- (b) Calculate its total surface area. (3marks)



31. Use the number line below to answer the given questions.

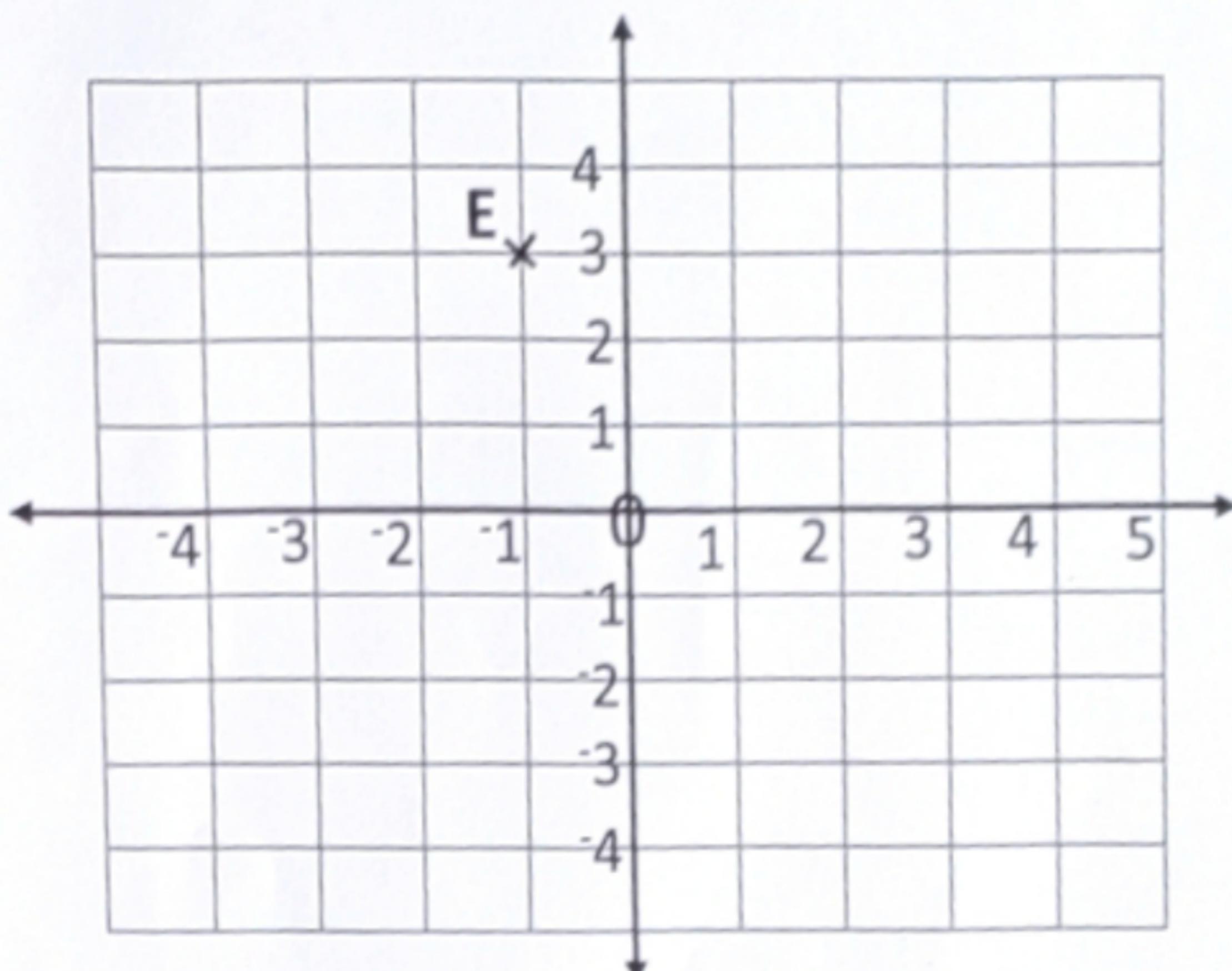


- (a) Write down the integers represented by the given arrows.

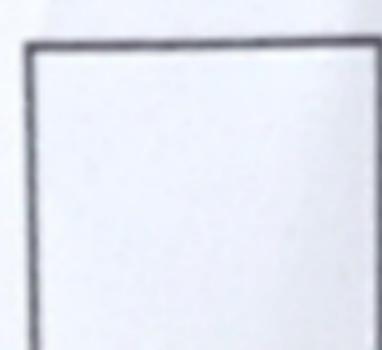
(i) $P = \underline{\hspace{2cm}}$ (ii) $Q = \underline{\hspace{2cm}}$ (iii) $R = \underline{\hspace{2cm}}$ (3marks)

- (b) Write down the mathematical statement represented on the number line above. (1mark)

32. Use the co-ordinate graph below to answer the given questions.



- (a) Plot the points M(-3, -2) and L(0, 2) (2marks)
- (b) Write the co-ordinates of point E. (1mark)
- (c) Locate point A on the graph and write its co-ordinates such that after joining M to E, E to A, A to L and L to M, the figure formed is a parallelogram. (2marks)



THE END