



**SUREKEY EXAMINATIONS BOARD**  
**PLE MOCK EXAMINATION**

MATH 1101  
2024

MATHEMATICS

Moved: 2 hours 30

Candidate's Name:

### Candidate's Signature:

School Name:

**Read the following instruction 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. The paper has **16 printed pages** altogether.
  3. Answer **all** the questions. **All** answers to both sections **A** and **B** must be written in the spaces provided.
  4. All answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be marked.
  5. **No calculators** are allowed in the examination room.
  6. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
  7. Do not fill anything in the table indicated: "**FOR EXAMINERS' USE ONLY**" and boxes inside the question paper.

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

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Turn Over

**SECTION A: 50 MARKS**

Answer all questions in this section

Questions 1 to 40 carry one mark each

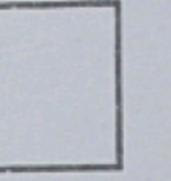
1. Find the product of 2 and 134.
2. Round off 4362 to the nearest hundreds.

3. Write a mathematical statement representing the shaded region of the Venn diagram below.



4. If  $a = 3$ ,  $b = 4$  and  $c = -3$ . Find the value of  $ab - c^3$ .

5. Joan drew a circle on the ground using her foot covering a distance of 132cm. how long was her foot?



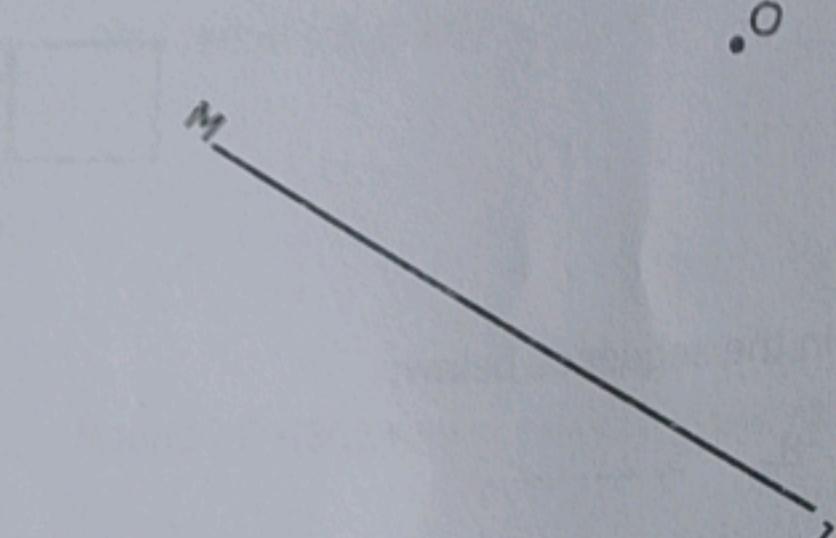
6. Find the next number in the sequence below;

-14, -11, -8, -5, .....

7. How many groups of hundred represent the value of 5 in the numeral?  
75834

8. An athlete was covering 5 metres every second. Calculate his speed in kilometres per hour.

9. Using a ruler, a pencil and a pair of compasses only, construct a line which is parallel to line MJ through point O.



10. Write the number whose expanded form is;

$$(6 \times 10^3) + (5 \times 10^0) + (7 \times 10^2)$$

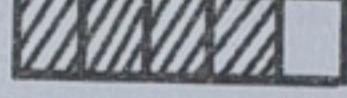
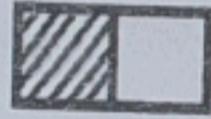
11. Kagiri borrowed sh.25,000 from a money lender which generated an interest of sh.6,000 after 3 years. Calculate the interest rate.

12. Use the prime factors below to find the largest factor which is common in both 12 and 15.

$$12 = 2^2 \times 3$$

$$15 = 2 \times 3^2$$

13. Arrange the diagrams below in decreasing order.



14. A teacher gave out two money offers to the best performing child in a Mock paper.

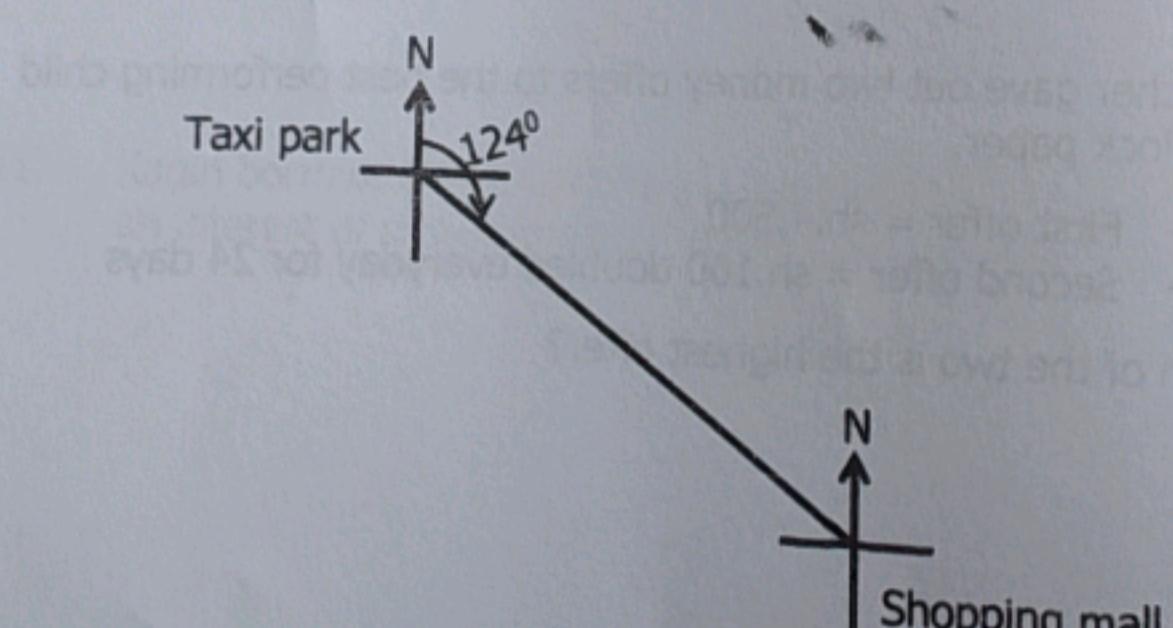
- First offer = sh.4,500
- Second offer = sh.100 doubled everyday for 24 days

Which of the two is the highest offer?

15. Change 4367 into scientific notation.

16. Express 0.4545..... as a rational number in the lowest form.

17. The bearing of the shopping mall from the taxi park is  $124^\circ$ . Use the diagram below to find the bearing of the taxi park from the shopping mall.



18. Solve for t:  $3^t + 1 = 81$

19. A forty-minute lesson started at 4:06p.m. write the time the lesson ended in the 24-hour clock system.

20. A tourist van carries 42 tourist in 3 trips to Murchision falls National park. How many tourist does the van carry in 5 trips?

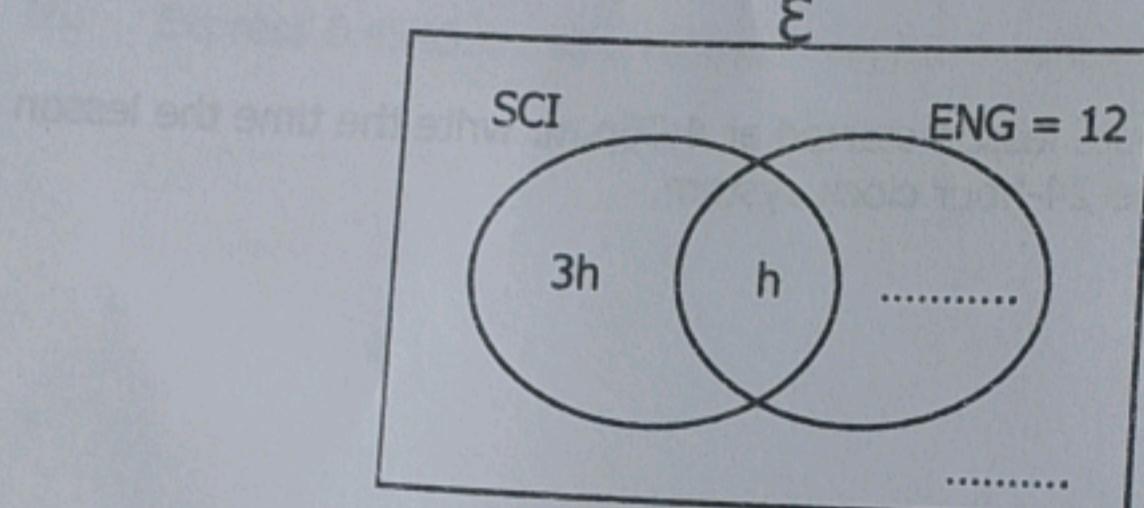
## **SECTION B: 60 MARKS**

**Answer all the questions in this section**

**Marks for each question are indicated in brackets**

21. The Venn diagram below shows the number of pupils in a class and the subjects they like most. 3 of the pupils in the class do not like the two subjects.

- (a) Complete the Venn diagram correctly. (02 Marks)



- (b) If 10 pupils in the class do not like Science, find the value of  $h$ .

(02 Marks)

- (c) How many pupils are in the class? (02 Marks)

22. The average of  $2y+5$ ,  $4+y$ ,  $3y+1$  and 12 is 19.

(a) Find the value of  $y$ .

(03 Marks)

(b) Find their median.

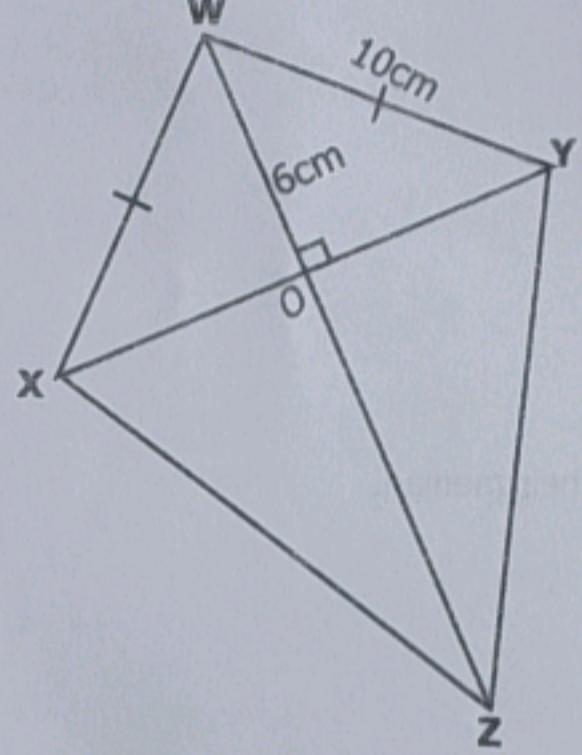
(02 Marks)

23. Hanifah and Aloyo shared 21 sweets given to them by their uncle.

If Hanifah got  $\frac{3}{4}$  of what Aloyo got, calculate Hanifah's share.

(04 Marks)

24. In the diagram below,  $WX = WY$ , diagonal  $WZ$  is perpendicular to diagonal  $XY$  and  $WZ$  is three times  $WO$ . Study and use it to answer the questions that follow.



- (a) Find the length of  $XY$ . (03 Marks)

- (b) Calculate the area of the triangle  $XYZ$ . (02 Marks)

25.

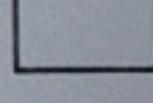
26.

25. Othieno used part of his pocket money to buy the items below and remained with sh.15,500.
- One and a half dozen of crayons at sh.8,000 per dozen.
  - Twenty-five sweets at sh.500 for every five sweets.
  - Two small balls for sh.10,000.

If he used half of the total cost for crayons for transport, how much was his pocket money altogether? (05 Marks)

26. (a)      Workout:      
$$\begin{array}{r} 1 \ 2 \ 1 \ 1\text{three} \\ + \ 2 \ 2 \ 1\text{three} \\ \hline \end{array}$$

- (b) A teacher had counters in a Mathematics lesson. She grouped them in groups of four and 3 counters remained. When she grouped them in sevens, 5 counters remained. How many counters did the teacher have in the lesson? (03 Marks)



27. The exterior angle of a regular polygon is  $72^\circ$ .

(a) Name the polygon. (02 Marks)

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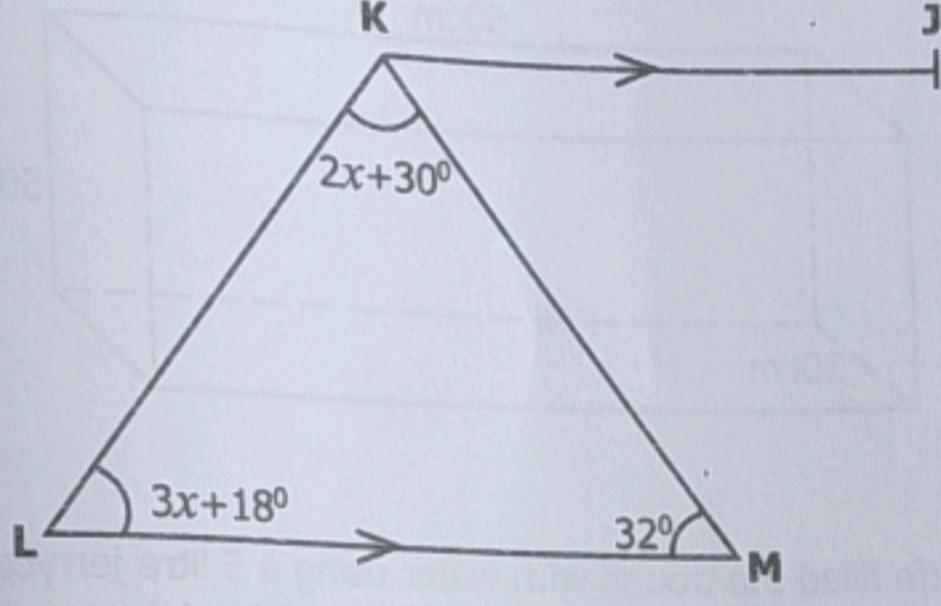
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(b) Using a ruler, a protractor and a pair of compasses, construct the above polygon with side length 3cm.

(04 Marks)

28. In the diagram below, Line JK is parallel to LM. KLM is a triangle. Use the diagram carefully and then answer the questions that follow.

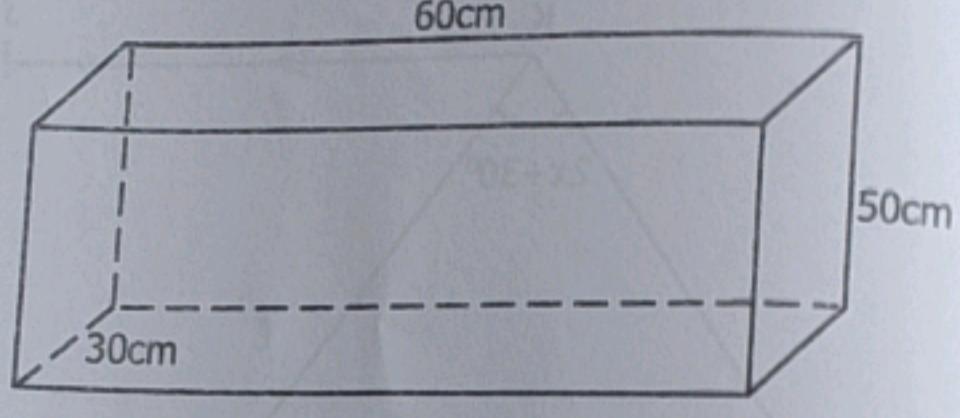


(a) Calculate the value of  $x$ . (03 Marks)

(b) Work out the size of angle JKL. (02 Marks)

Turn Over

29. The diagram below shows a drinking water trough used by Mr.Teffe to give his animals water. Study the diagram and use it to answer the questions that follow.



If Mr.Teffe filled the trough with water using a 5 litre jerrycan.  
How many jerrycans did he use to fill two thirds of the trough?

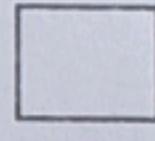
(05 Marks)

30.

31.

30. A boutique woman sold a belt at sh.4,200 and made a 5% profit. At how much money would the woman have sold the belt if she had realized a 20% loss?

(04 Marks)



31. A class contains boys and girls in the ratio of 7:4 respectively. If there are 15 more boys than girls.

(a) How many girls are in the class?

(02 Marks)

(b) If  $\frac{3}{5}$  of the girls and 40% of the boys are day scholars.

How many boarding pupils are in the class? (03 Marks)