STEM EXAMINATIONS BOARD

TERM ONE ASSESSMENT SET III, 2024

PRIMARY SEVEN

MATHEMATICS

Time Allowed: 2 hours 30 minutes

	Random No.						Personal No.		
Index No.									

Candidate's Name: .....

Candidate's Signature: .....

District ID No:

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. The paper has **8 printed pages** altogether.
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"** 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		

SECTION A : 40 MARKS.

Answer **all** *questions in this section.*

Questions **1** *to* **20** *carry* **two** *marks each.*

1. Work out:
$$\begin{array}{r} 3\,1\,4 \\ +\ 4\,1 \\ \hline \\ \hline \end{array}$$

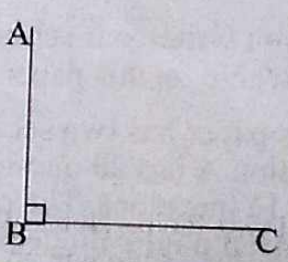
2. Find the next two numbers in the sequence below.
4, 9, 16, 25, 36, 49, ____, ____

3. Round off 483.47 to the nearest tenths.

4. Given that  stands for 5 tomatoes in a heap. How many heaps are represented by  tomatoes?

5. Express 10m/sec to km/hr.

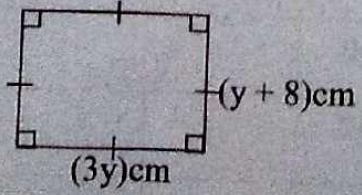
6. Using a ruler, a pencil and a pair of compasses only, bisect angle ABC drawn below.



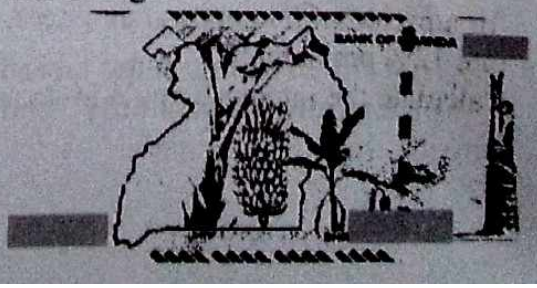
7. Simplify: $^{-}8 + {}^{+}11$.

8. How many 300gms packets of tea are contained in $1\frac{1}{2}$ kg tin?

9. Solve for the value of y from the figure below.



10. If Cecilia bought $\frac{1}{2}$ dozen of similar books at Shs. 1500 each using the note below, find her change.



11. Draw a Venn diagram to show two sets; $n(A \cap B) = n(A)$.

12. Arrange 0.9, 0.09, 9.9 in descending order.

13. Convert CXIX to Hindu-Arabic numerals.

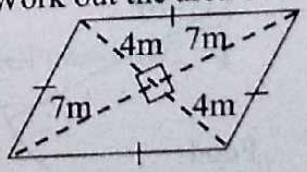
14. Express 8700 in standard form.

15. Given that $F_X = \{2_1, 2_2, 3_1, 3_2\}$
$F_Y = \{2_1, 3_1, 5_1\}$
Find the Lowest Common Multiple (LCM) of X and Y.

16. Simplify: $m - 7p + 8m - 2p$.

17. Abdul was facing North West and turned anti-clockwise through an angle of 225^0. What is his new direction?

18. Work out the area of the figure below.



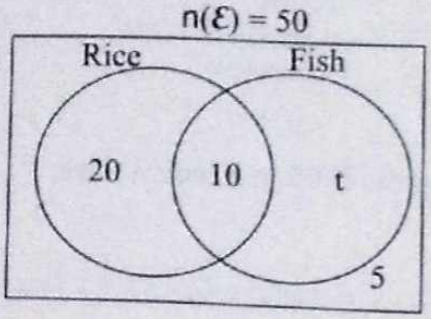
19. A trader borrowed 10,000 US dollars for a period of 5 months at an interest rate 12% per annum.
Calculate the interest he paid in dollars.

20. Find the mean of 1, 4, 3, $6x$, 7, 10 and $(x - 4)$

SECTION B : 60 MARKS

Answer **all** *questions in this section.*
Marks for each question are indicated in the brackets.

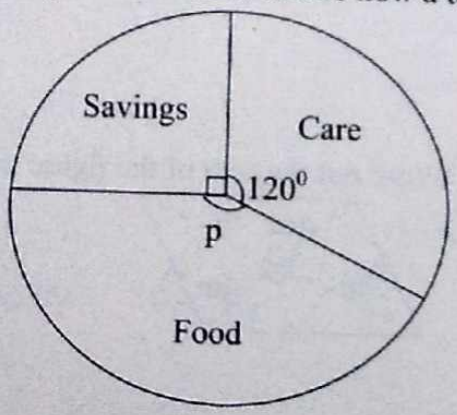
21. The Venn diagram below shows number of people who enjoy rice (R) and fish (F) in a community.



(a) How many people enjoy fish? *(3 marks)*

(b) Find the probability of picking a person who doesn't enjoy rice in the community. *(2 marks)*

22. The pie-chart below shows how a teacher spends his monthly income.



(a) Work out the value of p in degrees. *(2 marks)*

(b) What percentage of his income does he save? *(2 marks)*

(c) If he spent Shs. 48,000 on care, calculate his total monthly income. *(2 marks)*

23. With the help of a ruler, a pencil and a pair of compasses only, construct a rectangle WXYZ of length WX = 8cm and width XY = 4.5cm. *(4 marks)*

24. To make a school uniform, a tailor needs the following;
(i) a school badge for Shs. 1000
(ii) threads for Shs. 7000
(iii) 4 buttons at Shs. 300 per button
(iv) $4\frac{1}{2}$ metre of a cloth at Shs. 3000 per metre
(v) tailor's labour worth Shs. 5000
How much will a parent pay for his two sons' school uniforms? *(5 marks)*

25. A school bus broke down after travelling $\frac{1}{3}$ of the journey.
The remaining distance to complete the journey was 80km.

(a) Find $\frac{1}{4}$ of the remaining fraction of the journey. *(2 marks)*

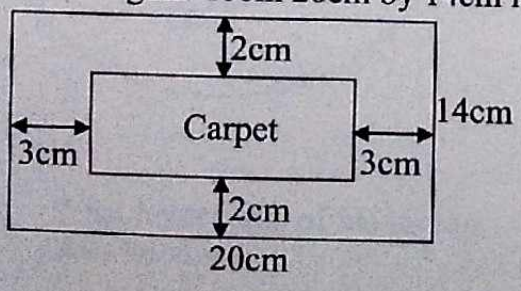
(b) How long was the whole journey? *(2 marks)*

26. (a) Work out $(3.7 \times 11) + (11 \times 6.3)$ using distributive property. *(2 marks)*

(b) Solve for a; $3^a \times 3 = 27$. *(2 marks)*

(c) Electricity poles were fixed 40m apart in a community.
If 20 poles were fixed, what distance was covered? *(2 marks)*

27. A rectangular room 20cm by 14cm is covered by a carpet as shown below.



(a) Find the area covered by the carpet. *(3 marks)*

(b) Calculate the area not covered by the carpet. *(3 marks)*

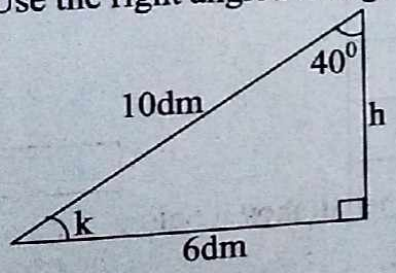
28. (a) Simplify: $\frac{0.08 + 1.92}{1.3 - 1.05}$ *(3 marks)*

(b) Increase Shs. 50,000 in the ratio 5:4. *(2 marks)*

29. (a) Work out: $3m - 7 = 14$. *(2 marks)*

(b) If $y = -6$, solve for the value of $4y^2$. *(2 marks)*

30. Use the right angled triangle below to answer the questions that follow;

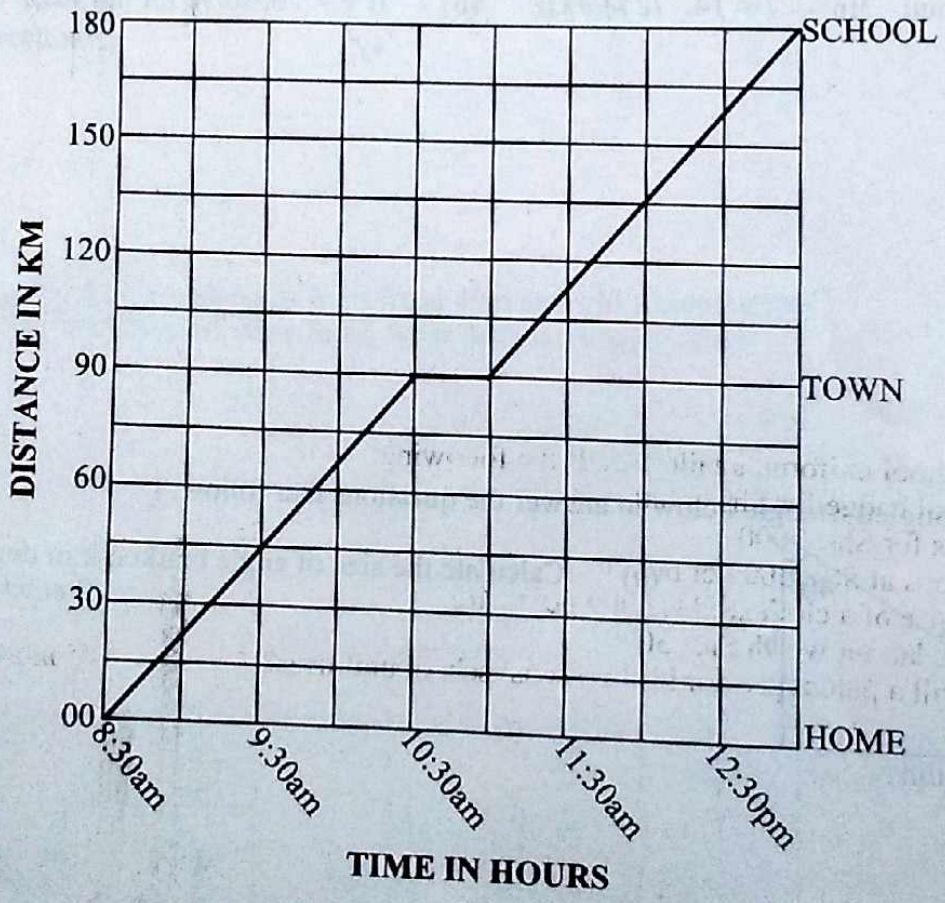


(a) Calculate the size of angle marked k in degrees. *(2 marks)*

(b) Find the height (h) of the triangle. *(2 marks)*

31. A trader sold off a 20 litre Jerrycan of cooking oil using plastic bottles of 500ml at Shs. 6000 each bottle.
How much did she earn altogether? *(5 marks)*

32. The travel graph below shows a teachers journey from his home via town to school.



(a) At what time did the teacher arrive school? *(1 mark)*

(b) How far is the school from town? *(1 mark)*

(c) For how long did she rest in the whole journey? *(1 mark)*

(d) Work out her average speed for the whole journey. *(2 marks)*