

# STEM EXAMINATIONS BOARD

## TERM ONE ASSESSMENT SET III, 2024

### PRIMARY SEVEN

### MATHEMATICS

*Time Allowed: 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. 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		
<b>TOTAL</b>		



SECTION A : 40 MARKS.

Answer all questions in this section.

Questions 1 to 20 carry two marks each.



1. Work out:

$$\begin{array}{r} 314 \\ + 41 \\ \hline \end{array}$$

2. Find the next two numbers in the sequence below.

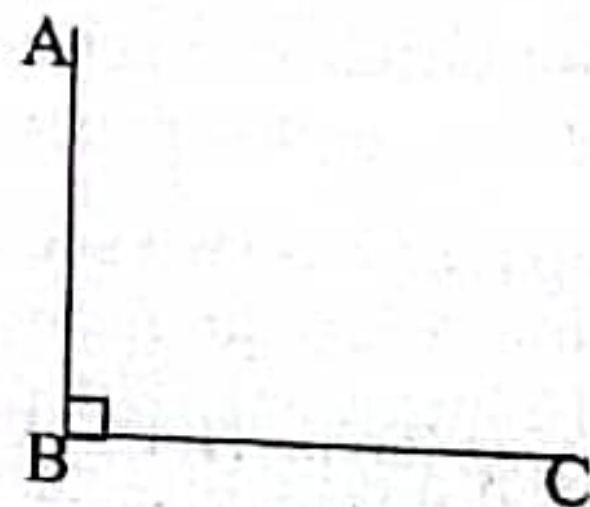
4, 9, 16, 25, 36, 49, \_\_\_\_\_, \_\_\_\_\_

3. Round off 483.47 to the nearest tenths.

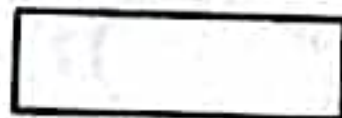
4. Given that  stands for 5 tomatoes in a heap. How many heaps are represented by  tomatoes?

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

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

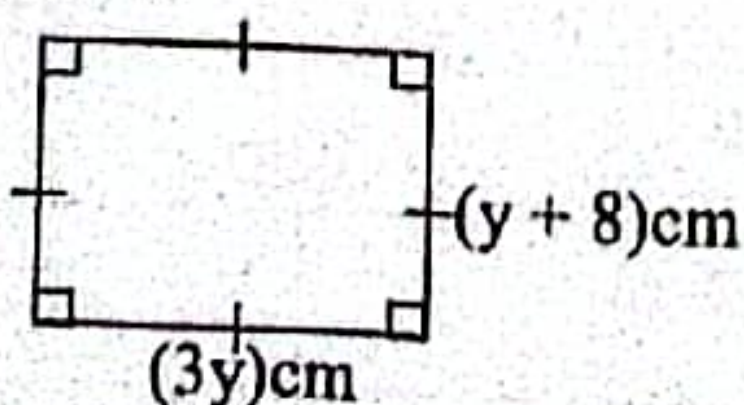


7. Simplify:  $-8 + +11$ .



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.

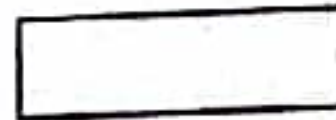
13. Convert CXIX to Hindu-Arabic numerals.

14. Express 8700 in standard form.

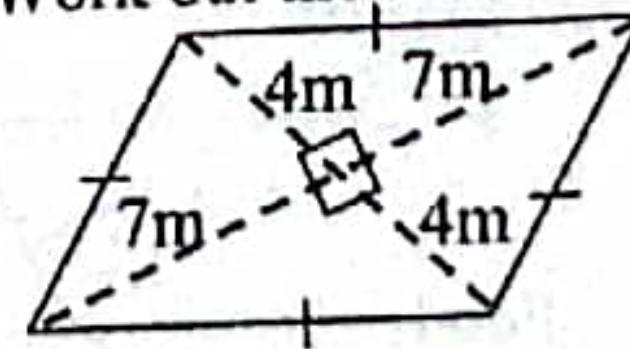
15. Given that  $F_X = \{2_1, 2_2, 3_1, 3_2\}$   
 $F_Y = \{2_1, 3_1, 5_1\}$   
Find the Lowest Common Multiple (LCM) of X and Y.

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

17. Abdul was facing North West and turned anti-clockwise through an angle of  $225^\circ$ . 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,  $6\alpha$ , 7, 10 and  $(\alpha - 4)$

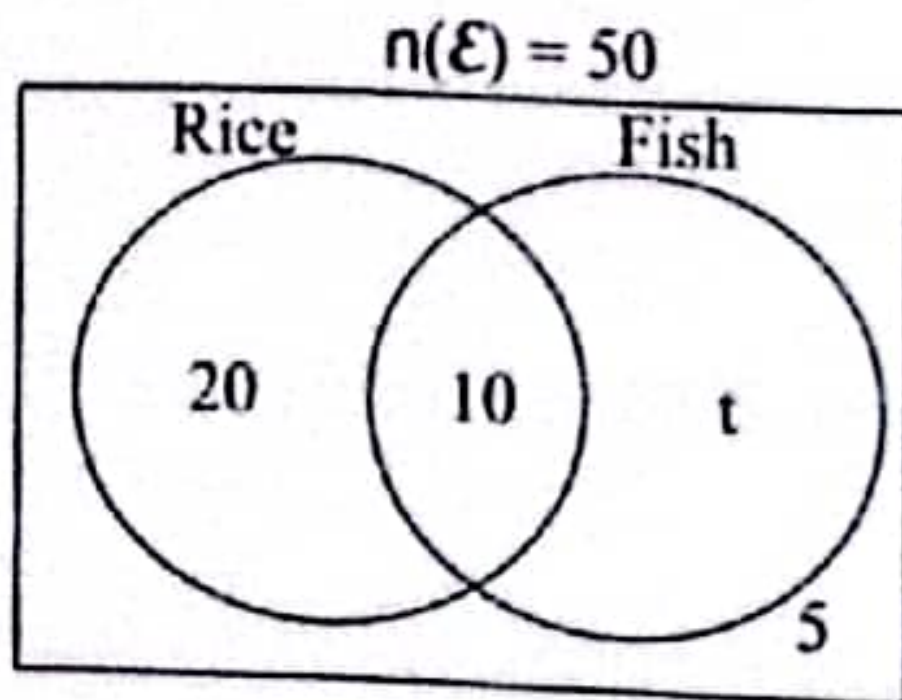


## SECTION B : 60 MARKS

Answer all questions in this section.

Marks for each question are indicated in the brackets.

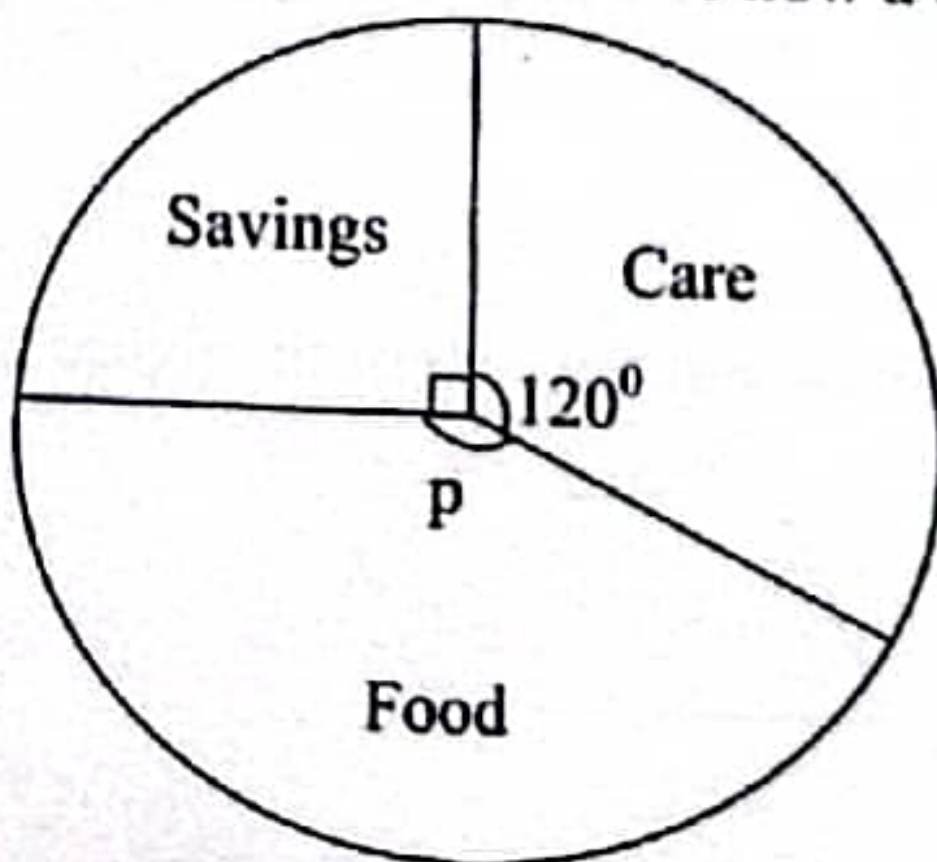
21. The Venn diagram below shows number of people who enjoy rice (R) and fish (F) in a community.



- (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  $WX = 8\text{cm}$  and width  $XY = 4.5\text{cm}$ . (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)

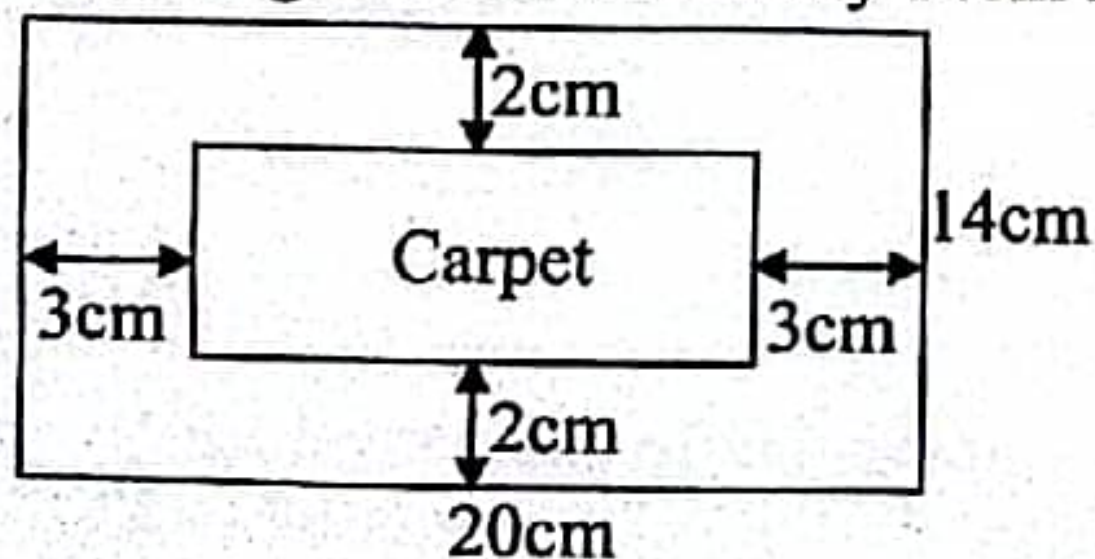


25. A school bus broke down after travelling  $\frac{1}{3}$  of the journey. The remaining distance to complete the journey was 80km.
- (a) Find  $\frac{1}{4}$  of the remaining fraction of the journey. (2 marks)
- (b) How long was the whole journey? (2 marks)

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)



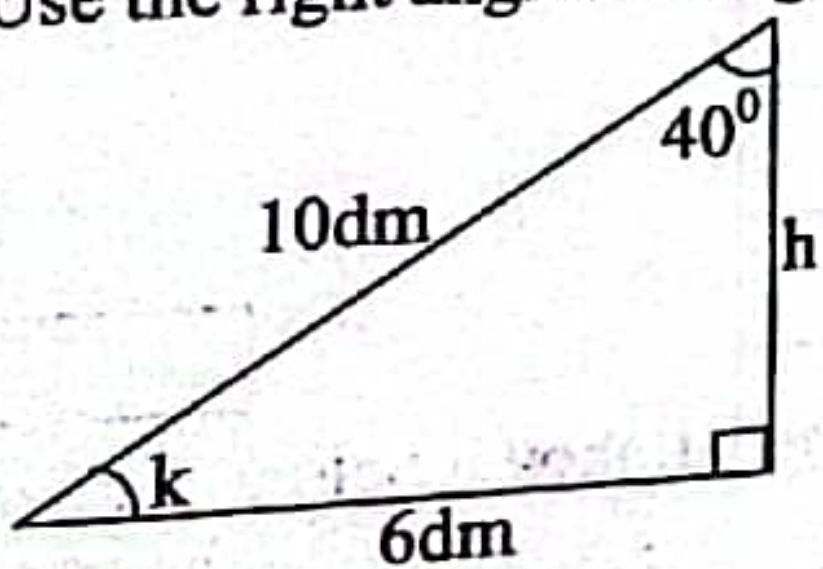
28. (a) Simplify:  $\frac{0.08 + 1.92}{1.3 - 1.05}$  (3 marks)

(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;



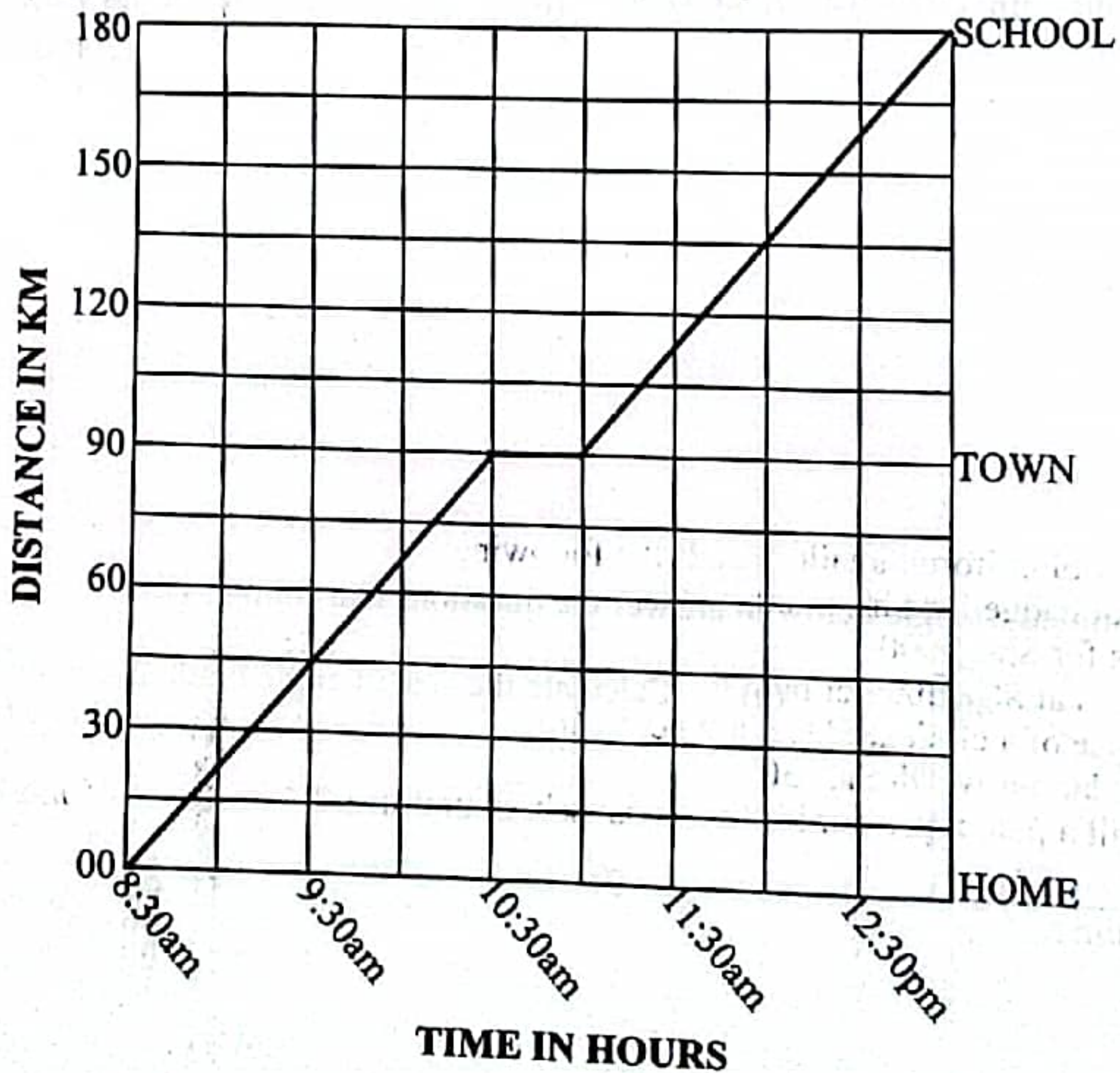
(a) Calculate the size of angle marked k in degrees. (2 marks)

(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)