

SECTION A : 40 MARKS.

Answer **all** questions in this section.



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

1. Work out:

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

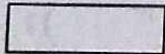
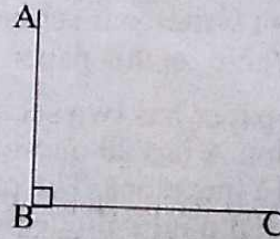
2. Find the next two numbers in the sequence below.
4, 9, 16, 25, 36, 49, _____, _____

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.

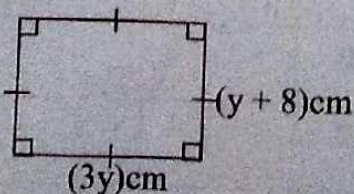
6. Using a ruler, a pencil and a pair of compasses only, bisect angle ABC drawn below.



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.



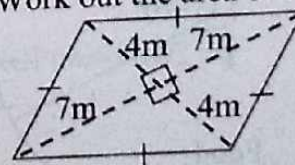
11. Draw a Venn diagram to show two sets; $n(A \cap B) = n(A)$. 12. Arrange 0.9, 0.09, 9.9 in descending order.

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 18. anti-clockwise through an angle of 225° . What is his new direction?

Work out the area of the figure below.



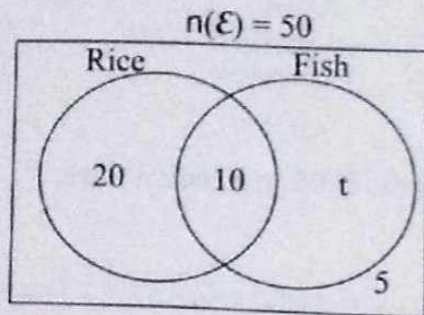
19. A trader borrowed 10,000 US dollars for a period of 5 months at an interest rate 12% per annum. Calculate the interest he paid in dollars. 20. Find the mean of 1, 4, 3, $6x$, 7, 10 and $(x - 4)$

SECTION B : 60 MARKS

Answer **all** questions in this section.

Marks for each question are indicated in the brackets.

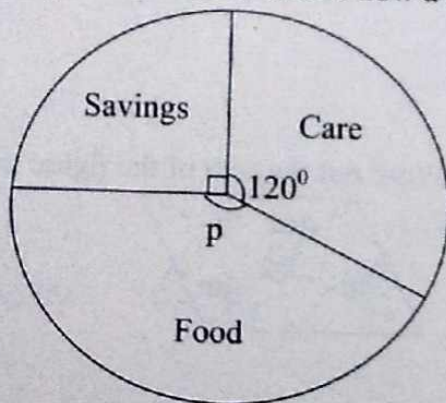
21. The Venn diagram below shows number of people who enjoy rice (R) and fish (F) in a community.



- (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 $WX = 8\text{cm}$ and width $XY = 4.5\text{cm}$. (4 marks)

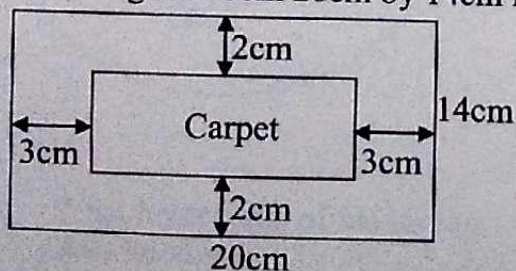
24. To make a school uniform, a tailor needs the following;
- (i) a school badge for Shs. 1000
 - (ii) threads for Shs. 7000
 - (iii) 4 buttons at Shs. 300 per button
 - (iv) $4\frac{1}{2}$ metre of a cloth at Shs. 3000 per metre
 - (v) tailor's labour worth Shs. 5000
- How much will a parent pay for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

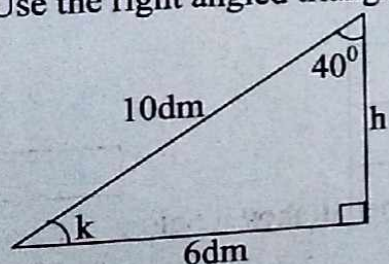
28. (a) Simplify: $\frac{0.08 + 1.92}{1.3 - 1.05}$ (3 marks)

(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;

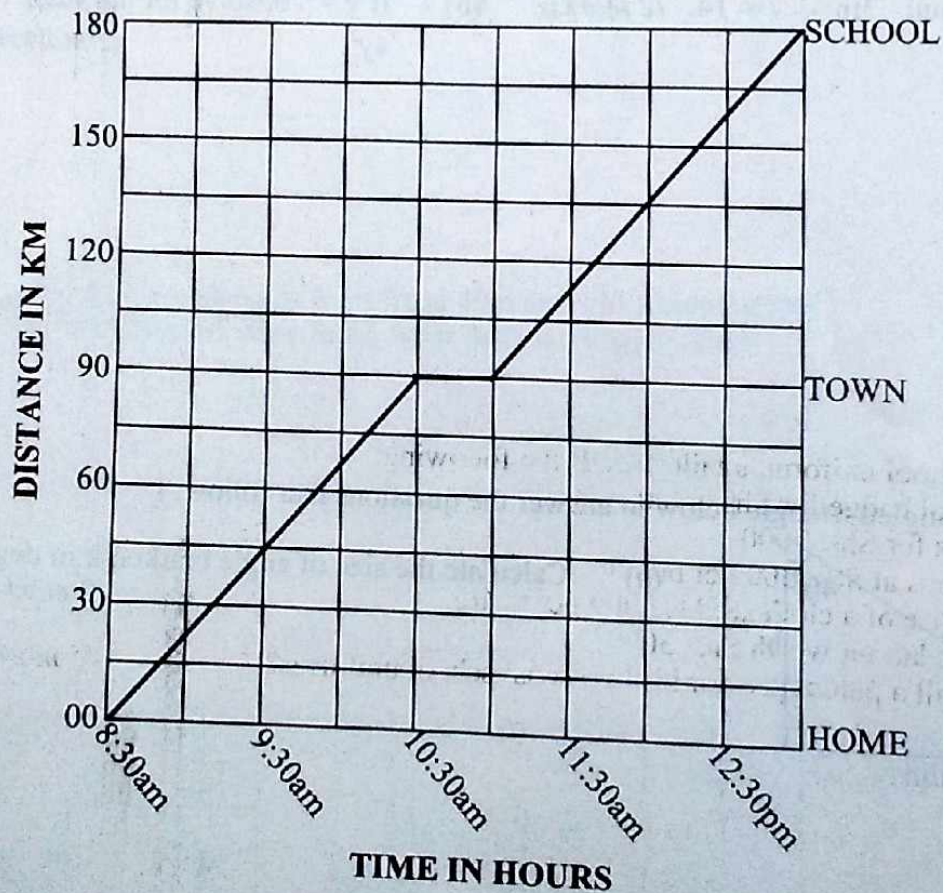


(a) Calculate the size of angle marked k in degrees. (2 marks)

(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)