KAMPALA PRIMARY SCHOOLS'
SKYLINE EXAMINATIONS™

MOCK
2023

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No. | | | | | | | | | |

Candidate's Name:..

Candidate's Signature:..

School Name:...

District Name:...

DO NOT OPEN THIS BOOK LET UNTIL YOU ARE TOLD TO DO SO.

FOR EXAMINERS' USE ONLY

Read the following instructions carefully;

1. The paper has **two** Sections: **A** and **B**.
2. Section **A** has 20 short questions (40 marks).
3. Section **B** has 12 questions (60 marks).
4. Attempt **ALL** questions. All answers to both Sections **A** and **B** must be written in the spaces provided.
5. All answers must be written using blue or black ball-point pen or ink. Only diagrams and graphs work may be done in pencil.
6. Unnecessary alteration of work will lead to loss of marks.
7. Any handwriting that cannot easily be read may lead to loss of marks.
8. Do not fill anything in the boxes indicated for examiners' use only.

FOR EXAMINERS' USE ONLY		
Qn. No.	**MARK**	**SIGN**
1 – 4		
5 – 8		
9 – 12		
13 – 16		
17 – 20		
21 – 23		
24 – 26		
27 – 29		
30 – 32		
TOTAL		

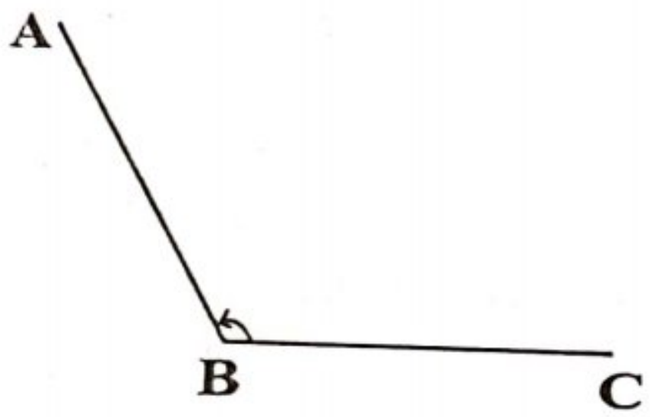
SECTION A: 40 MARKS

Questions **1** to **20** carry <u>**two**</u> marks each.

1. Find the value of $3^2 + 2^0$

2. Write in figures: "One hundred one thousand one and one hundredths"

3. (a) Measure the size of angle **ABD** in the diagram below.



(b) Write the property represented by the statement below:

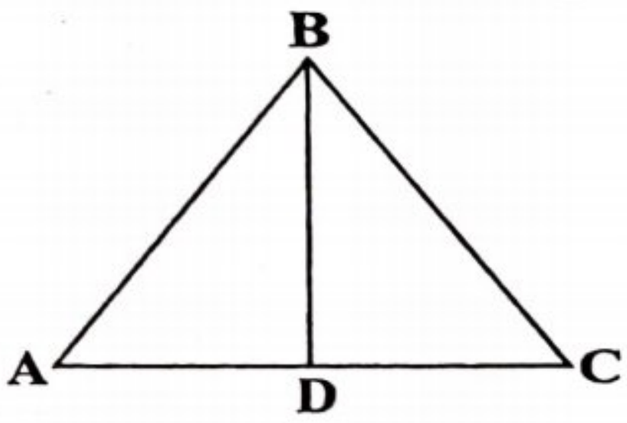
$P + q = q + P$

4. Work out: $1011_{two} \times 11_{two}$

5. Simplify: $^{-}8 - ^{-}3$

6. Solve: $(\mathbf{n} - 5)3 = \mathbf{n} - 13$

7. In the figure below, Angle **ABC** = 84^0, Angle **ACB** = 48^0 and Angle **ABD** = 38^0. Work out the size of angle **ADB**.



8. A school has a population of 600 pupils. There are 360 girls in the school. What is the ratio of girls to boys in the school?

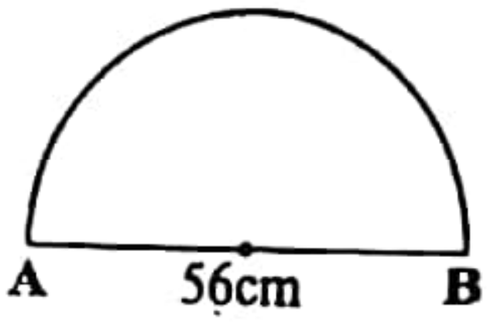
9. The probability of a football team winning a game is ¾. If the team plays 24 games, find the number of games the team is expected to lose.

10. Find the Highest Common factor of 12 and 18.

11. Given that $x = \bar{4}$, $y = 6$ and $z = \bar{2}$. Find the value of:

$$\frac{y\,(x + z)}{z}$$

12. Work out the perimeter of the given figure below. (Take $\pi = 3\frac{1}{7}$)



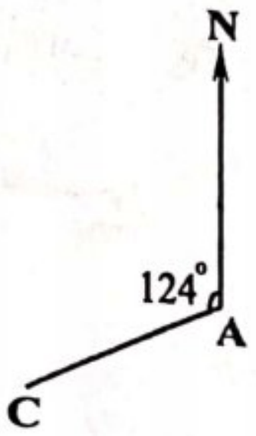
13. K is a set with 63 proper subsets. Find n(K).

14. A journey which began at a quarter to nine in the morning ended at 5:30p.m. of the same day. How long did the journey take?

15. Baludde borrowed Shs.400,000/= from a Bank which charges a simple interest rate of 2% per month. Calculate the amount he paid the Bank at the end of 1 year and 8 months.

16. Write down the next numbers in the sequence: 1, 4, 11, 22, 37, _____, _____

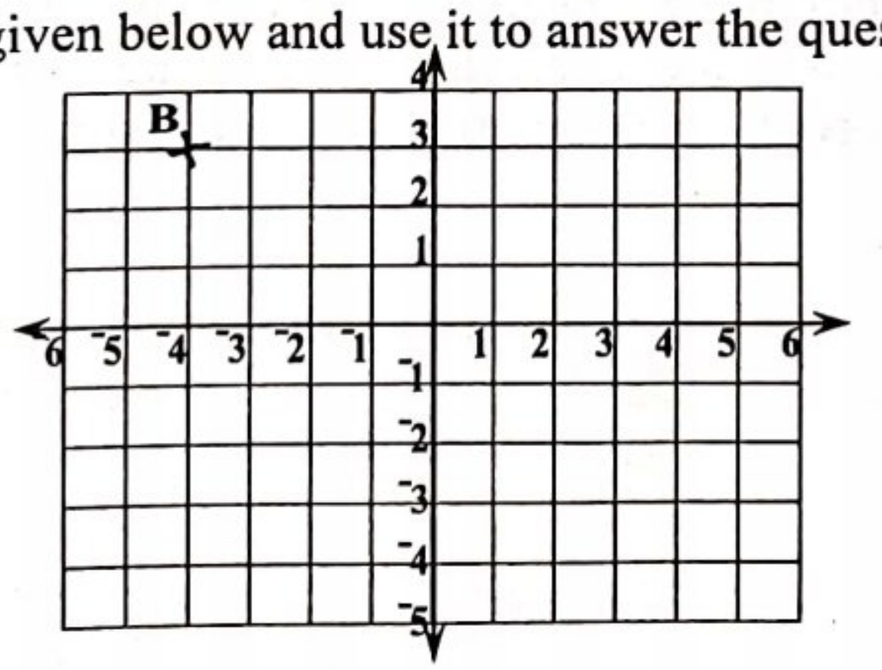
17. Using the figure below, find the direction of **A** from **C**.



18. Zizinga bought a book for Shs.2,500/=. For how much must he sell the same book in order to realise a gain of 40%.

19. Lubowa moved from his home to town **X** a distance of 400Km using a speed of 80kph. On his return journey, he used a speed of 50Km per hour. How much longer did he spend on the way while coming back home?

20. Study the graph given below and use it to answer the questions that follow.

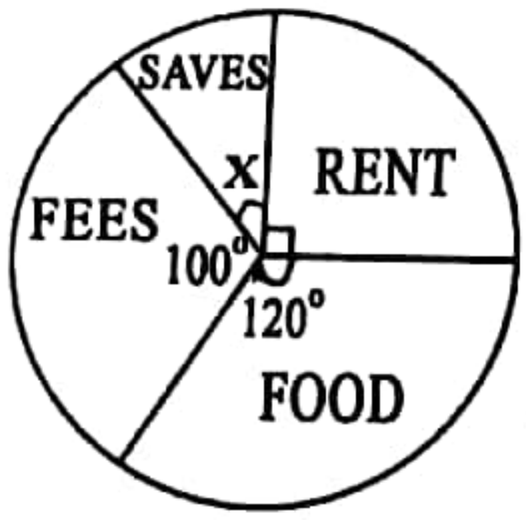


(a) Write the co-ordinates of point **B**.

(b) Plot point **K**(4, 0) on the co-ordinate graph.

SECTION B: 60 MARKS

21. The pie-chart below represents the expenditure for Mr. Odongping's family. Use it to answer the questions that follow.



(a) Find the value of **X**.

(2 marks)

(b) Given that he spends Shs.12,000/= more on Food than on Fees. Find the monthly income of the family.

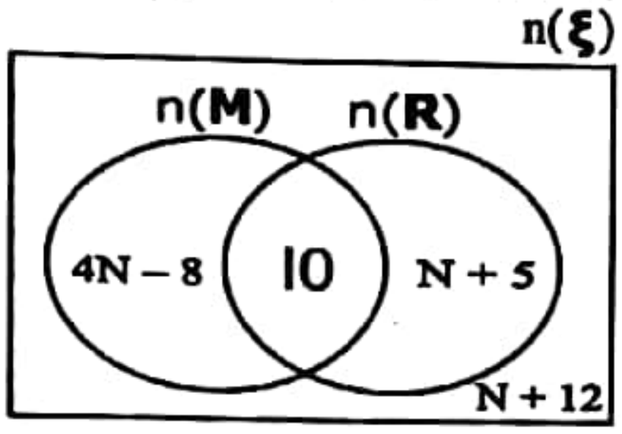
(2 marks)

22. (a) Alenyo ate one third of her bread and gave one fifth of the remainder to each of her two friends. If the left over bread was then shared among 4 people equally, what fraction of the bread did each of the last 4 people receive?

(3 marks)

(b) Given that the leftover bread was weighing 400gm. Calculate the weight of the whole bread in kilogrames. (2 marks)

23. The Venn diagram below represents the guests who attended the wedding party of Mr. and Mrs. Juruwa. They were served with Matooke n(M) and Rice n(R). If 23 guests disliked Matooke n(M). **Answer the following questions correctly.**



(a) Find the number of guests who ate one type of food. (3 marks)

(b) How many people attended the wedding ceremony? (2 marks)

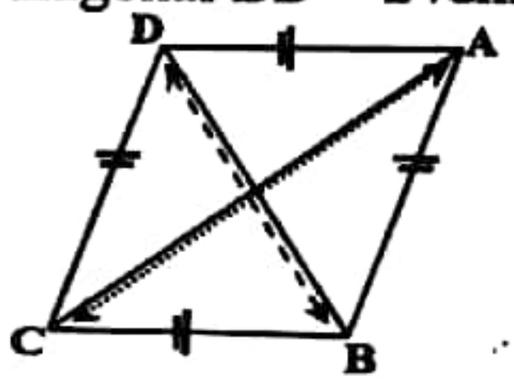
24. Baraza bought 50 books at fee of Shs.800/= each to go and sell them in his shop. He decided to sell 40 of the books at a gain of 20% and the rest of the books at a loss of 10%.

(a) Work out the gain he made on the 40 books he sold at first. (2 marks)

(b) Find the loss he realised on the rest of the books he sold. (2 marks)

(c) Find the profit he made after selling all the books. (2 marks)

25. The diagram given below is of a rhombus **ABCD**. The distance around the rhombus is 80dm and the diagonal **BD** = 24dm.

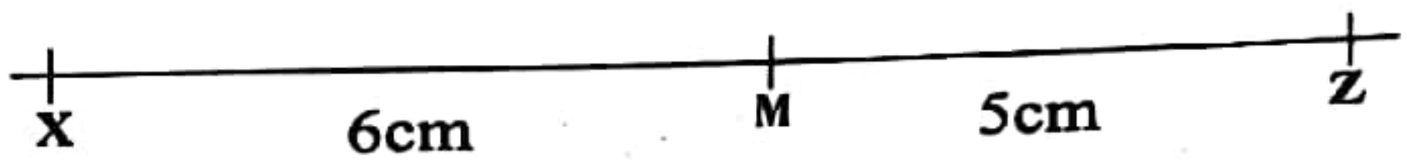


(a) Find the length of diagonal **AC**. (4 marks)

(b) Workout the area of the whole figure in dm^2. (2 marks)

26. Given the line **XMZ** in the diagram below.

(a) With the help of a pair of compasses, a pencil and a ruler only, find point **Y** such that angle **MZY** = 60^0 and angle **ZMY** = 45^0. (3 marks)



(b) Measure the following: (1 mark each)

(i) Line **XY**

(ii) Angle **YXM**

27. The time for a mathematics examination paper is 2½ hours. Mafuta spends 10 minutes reading through the questions, takes 4½ minutes for each of the first 20 questions and then 3½ minutes for each of the last 12 questions. Calculate the time he is left with for revising his solutions. (4 marks)

28. Pinto has various amounts of money in the following currencies.
$800 (US dollars); 60,000 Rwandan Francs; 200,000 Uganda Shillings
Given that the existing exchange rates at a forex-bureau are as follows: .

Currency	BUYING RATES	SELLING RATES
1 US dollar ($)	Ug.Shs.3,600/=	Ug.Shs.3,700/=
1 Tanzania shilling (**Tz.Sh**)	Ug.Shs.1.4/=	Ug.Shs.1.5/=
1 Rwandan Francs (**RWF**)	Ug.Shs.2/=	Ug.Shs.4/=

(a) Find the total amount of money in Uganda shillings the trader has. (3 marks)

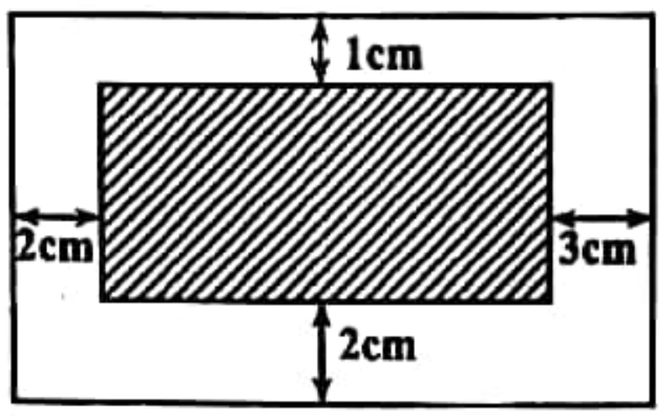
(b) If a radio costs Ug.Shs.48,000/=, how much would Pinto pay for the radio in Tanzanian shillings? (2 marks)

29. Okurut leaves his home at 6:30a.m. and cycles to a town 40Km away at an average speed of 10Km/hr, he rests for 40 minutes and then cycles back home at an average speed of 12Km/hr.

(a) Calculate his average speed for the whole journey. (3 marks)

(b) Work out the time he arrives at home. (2 marks)

30. The diagram below represents a photograph 20cm by 20cm mounted on a frame leaving a margin of 2cm and 3cm wide along the length and 1cm and 2cm wide along the width.



(a) Calculate the **area** of the margin. (3 marks)

(b) What is the distance around the frame? (2 marks)

31. Given below are the costs of local telephone charges on different networks.

MTN Shs.200 per minute
Airtel Shs.160 per minute
Africel Shs.120 per minute

(a) Muzira made a call of 5 minutes to his mother on Airtel network.
How much money was he charged? (2 marks)

(b) Calculate the amount of more money Hellen spends on a 7 minute call using MTN network than an 8 minute call using Airtel network. (3 marks)

32. Port **Y** is 64Km from Port **X** on a bearing of 300^0 and Port **Z** is 40Km away from Port **Y** on a bearing of 240^0.

(a) Draw a sketch diagram to show the position of the three ports. (1 mark)

(b) Using a scale drawing of 1cm to represent 8Km, construct an accurate diagram showing the position of the three ports. (3 marks)

(c) What is the bearing of Port **Z** from Port **X**? _____ (1 mark)