OSEB EDUCATIONALCONSULT KAMPALA

PRIMARY LEAVING EXAMINATION SPOT ITEM 2

2024

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.	**Random No.**						**Personal No.**		

Candidate's Name: .....

Candidate's Signature: .....

School Random No: .....

District ID: .....

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**. This paper has **12 pages** printed 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 be easily ready may lead to loss of marks.
7. Do not fill anything in the box indicated: **"FOR EXAMINERS' USE ONLY**" and the 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. Subtract 19 from 20.

2. Change 131_{four} to base ten.

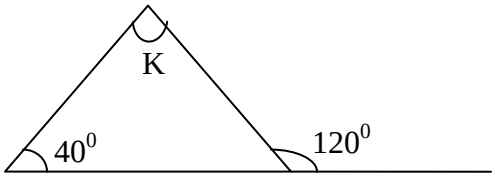
3. Add: -3 + -7

4. If x = -4, y = -5 and z = $\frac{1}{2}$, evaluate xy ÷ z

5. Prime factorise 36 and give your answer in product form.

6. Express $7\frac{1}{2}\%$ as a proper fraction in its simplest form.

7. Study the diagram below and find the value of K in degrees.

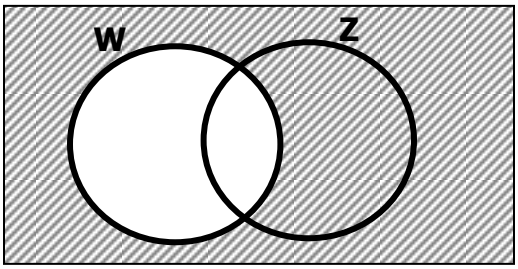


8. Find the square root of $1\frac{11}{25}$

9. Change 12:40pm to 24 hour clock system.

10. The median of 3 consecutive even numbers is 10. Find the sum of all numbers.

11. Describe the shaded region in the set below.



12. In a group of 40 pupils, 15% are girls and the rest are boys. Find the actual number of boys.

13. The area of a circle is 154mm^2. Find its radius.

14. Work out:
$$\begin{array}{r} 398 \\ \times\ 12 \\ \hline \end{array}$$

15. Given that A = 2x + 4 and B = x + 10. Solve for x if A = B

16. Change $\frac{1}{8}$ to a decimal fraction.

17. Find the range in: 8, -12, 0, 6 and 13

18. The village chairman was 45 minutes late for the village meeting which had started at 9:30am. At what time did the Chairman arrive for the meeting?

19. Mugalu drove **LX***km* to the hospital and then drove for **XCV***km* back home. What distance did he cover in Hindu Arabic?

20. Work out :

Hours	**Minutes.**
4	45
+ 3	35

SECTION B: 60 MARKS

Answer **all** questions in this section

Marks for each question are indicated in brackets

21. (a) Using a ruler, a pencil and a pair of compasses only, construct a kite STUV in which ST = SV = 5.5cm, SU = 11cm and TV = 6cm. (4 marks)

(b) Measure length TU. ……cm (1 mark)

22. (a) Solve the equation: $2 - \frac{2x}{3} = 4$ (2 Marks)

(b) Simplify: $\frac{2}{3}(6w - 3) - \frac{1}{2}(4 - 2w)$ (3 Marks)

23. Kiiza went shopping and bought items;

How much did she spend buying;

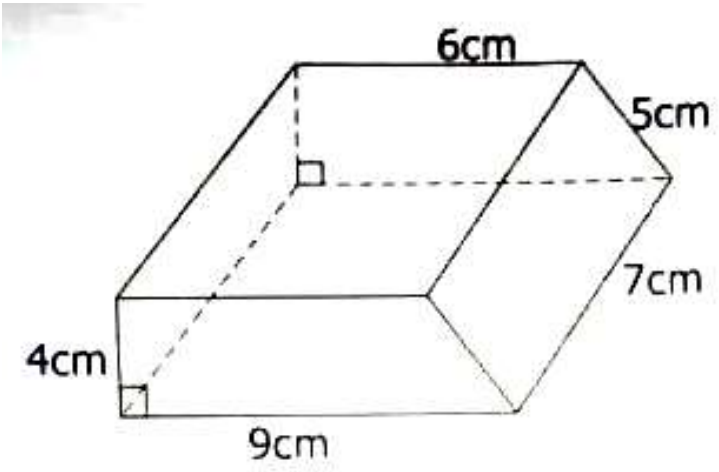
a) 13 loaves of bread at shs. 39,000? (1 Mark)

b) 1 ½ kg of rice at shs. 3000 a kg? (1 Mark)

c) 500gm of millet flour at shs. 2800 per kg? (2 Marks)

d) 3 ½ litres of cooking oil at shs. 1800 per half a litre? (1 Mark)

24. The figure below shows a trapezoidal prism. Use it to answer the questions that follow.



(a) Find the volume of the figure. (2 Marks)

(b) Work out the total surface area. (3 Marks)

25. (a) Solve : $\frac{(x-2)}{2} = \frac{(x+2)}{3}$ (2 Marks)

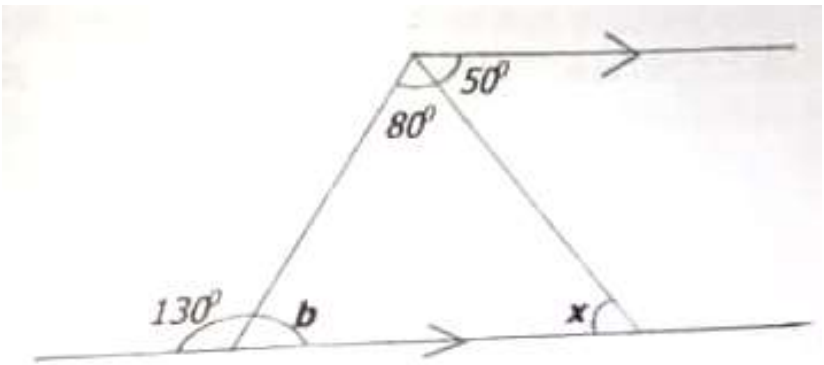
(b) Pingu is twelve years older than Wingu. In 8 years' time, their total age will be 48 years.

(i) How old is Pingu now? (2 Marks)

(ii) How old will Wingu be in fifteen years' time to come? (2 Marks)

26. (a) If 2y and 3y are complementary angles. find the value of y. (2 Marks)

(b) In the figure below, find the size of angles a, b and x.



(i) angle b (2 Marks)

(ii) angle x (2 Marks)

27. In a group of customers that entered NAKU'S restaurant, $\frac{3}{8}$ ordered for rice, $\frac{1}{5}$ of the remainder ordered for matooke while twenty ordered for posho.

a) What fraction of the customers ordered for;

i) Matooke (1 Mark)

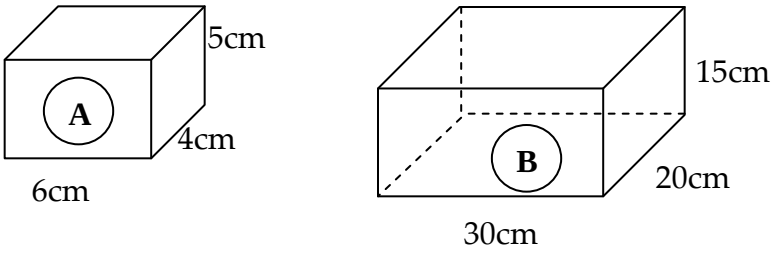
ii) Posho (1 Mark)

b) How many customers in total entered NAKU'S restaurant? (3 marks)

28. (a) Change 72km/hr to m/s. (2 Marks)

(b) Angella drove her car and covered 148km from 10:20am to 12:20pm. At what speed did she drive? (3 Marks)

29. How many cubes of type **(A)** can be packed in the box of type **(B)** below?



a) How many small boxes filled the carton? (3 Marks)

b) Work out the volume of empty space left in the carton. (3 Marks)

30. (a) Given the number 4932, expand it using;

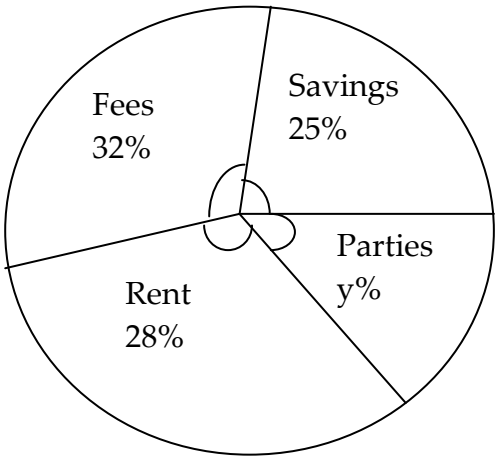
(i) powers of ten (1 Mark)

(ii) values (1 Mark)

(iii) place values (1 Mark)

(b) Add: $141_{five} + 43_{five}$ (2 Marks)

31. The pie chart below shows how Mr. Lukaluka spent his money monthly.



a) Express the sector of parties in degrees. (3 Marks)

b) If he spent 560,000/= on rent, work out his total income per month. (2 Marks)

32. The mean age of Amos, Peter, Isaac and Jimmy is 13 years. The mean age of Ritah, Privah, Sarah, Sandra and Susan is 12 years.

a) Find the total age of the ;

(i) girls (1 Mark)

(ii)boys (1Mark)

b) Find the mean age of all the children. (3 Marks)

*********THE END ************