

KAMPALA PRIMARY SCHOOLS' SKYLINE EXAMINATIONS™

P.L.E Preparation – 2023

Set 02

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.

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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.

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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		

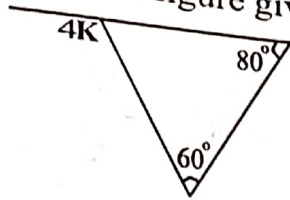
SECTION A: 40 MARKSQuestions 1 to 20 carry two marks each.1. Work out: 23×4

2. Write "Six hundred thousand six" in numerals

3. If Set A $\equiv \{a, e, i, o, u\}$. How many proper subsets can be formed from Set A?4. Simplify: $4(2 + 4n) - 4(2n + 3)$ 5. Find the integer which is seven steps on the right of -3 .6. In the space given below, construct an angle of 30° using a ruler, a pencil and a pair of compasses only.7. Collect like terms: $2a + b - a - 5b$

8. Reduce 360 goats in the ratio 2:5.

9. Study the figure given below carefully and find the value of K in degrees.



10. Work out: $4 \times 2 + (12 + 4) \div 2^2$

11. Solve the inequality: $2 - 3x \leq 8$

12. A $2\frac{2}{3}$ hour meeting ended at 2:05p.m.
At what time did the meeting begin?

13. The school bursar issued bank-slips to pupils that were numbered from CD390 to CD889. How many pupils took bank-slips to their parents?

14. Work out using the distributive property:
 $(4.8 \times 97.2) + (4.8 \times 2.8)$

15. Work out:

$$\begin{array}{r} 301 \text{ five} \\ - 123 \text{ five} \\ \hline \text{five} \end{array}$$

16. The diameter of a semi-circular piece of land for Mr. Kamoga is 28 metres. Calculate the distance around Mr. Kamoga's land.

1. Work out: 23×4

2. Write "Six hundred thousand six" in numerals

3. If Set $A \equiv \{a, e, i, o, u\}$. How many proper subsets can be formed from Set A?

4. Simplify: $4(2 + 4n) - 4(2n + 3)$

5. Find the integer which is seven steps on the right of -3 .

6. In the space given below, construct an angle of 30° using a ruler, a pencil and a pair of compasses only.

7. Collect like terms: $2a + b - a - 5b$

8. Reduce 360 goats in the ratio 2:5.

17. Express 750gm of posho into kilograms.

18. Express 5782 in scientific form.

19. The two base angles of an isosceles triangle are $(4y + 10)^\circ$ and $(2y + 40)^\circ$.
What is the value of y ?

20. Two numbers have their LCM as 24 and GCF is 2. If one of the numbers is 6.
What is the second number?

SECTION B: 60 MARKS

21. (a) Simplify: $\frac{1.44 \times 3.6}{1.2 \times 0.4}$

(3 marks)

(b) What is 0.2444... as a common fraction?
(3 marks)

22. (a) In a wedding function, Keno mixed milk with water to make tea in the ratio of 8:5 respectively. If Keno used 20 litres of water, how many litres of tea was prepared for people in the wedding function.
(3 marks)

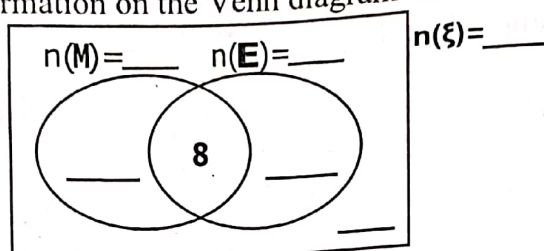
(b) How many more litres of milk than water were used to make the tea?

(2 marks)

23. In a class, 20 pupils like English $n(E)$, $2y$ like Maths $n(M)$, 8 pupils like both subjects, $\frac{1}{3}$ of those who like English only like neither of the two given subjects and 16 pupils dislike English.

(3 marks = $\frac{1}{2}$ mark each)

(a) Represent the above information on the Venn diagram below.



(b) Find the value of y .

(2 marks)

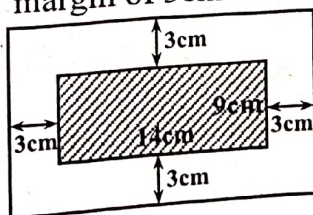
(c) If a pupil is picked at random to become a class captain, find the probability of choosing a child who likes only one subject.

(1 mark)

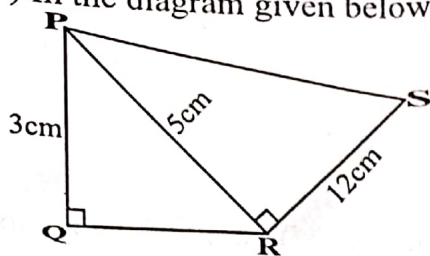
24. (a) Solve for n : $4n - (8 + n) = 7$ (3 marks)

(b) Subtract $2(n - 2)$ from $2(2n + 4)$ (3 marks)

25. (a) The diagram represents a photograph 14cm by 9cm, mounted on a frame leaving a margin of 3cm wide on all the sides. What is the area of the margin? (3 marks)



- (b) In the diagram given below, find the distance around the quadrilateral PQRS. (3 marks)



26. (a) With the help of a ruler, a pencil and a pair of compasses **only**, construct a triangle PQR in which angle R = 45° , angle PQR = 30° and side QR = 8cm. (3 marks)

- (b) Measure the length of side PQ. _____ (1 mark)

27. (a) Work out: $\begin{array}{r} 111_{\text{binary}} \\ \times 11_{\text{binary}} \\ \hline \end{array}$ (2 marks)

$$\begin{array}{r} 111_{\text{binary}} \\ \times 11_{\text{binary}} \\ \hline \end{array}$$

- (b) Find the value of K if $K^2 + K^2 = 112_{\text{five}}$ (3 marks)

28. Work out the following:

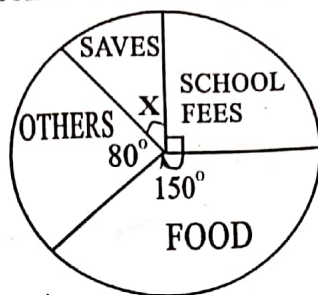
(a) $X^4 \div X^6$

(2 marks)

(b) $\frac{b \times b^5}{b^3}$

(2 marks)

29. The pie chart below represents how Mrs. Okot spends her monthly salary of Shs.270,000.



(a) How much money does Mrs. Okot save every month?

(3 marks)

(b) How much more money does she spend of food than others?

(3 marks)

30. Dusman went to the super market and bought the following items:

- 3Kg of sugar at Sh.4,500/= per kg**
- 2500ml of milk at Shs.1,800/= per litre**
- 36 oranges at Shs.800/= for every 30 oranges**
- 2Kg of beans at Shs.5,600/= each kilo**

(a) Find the total cost for the above items.

(4 marks)

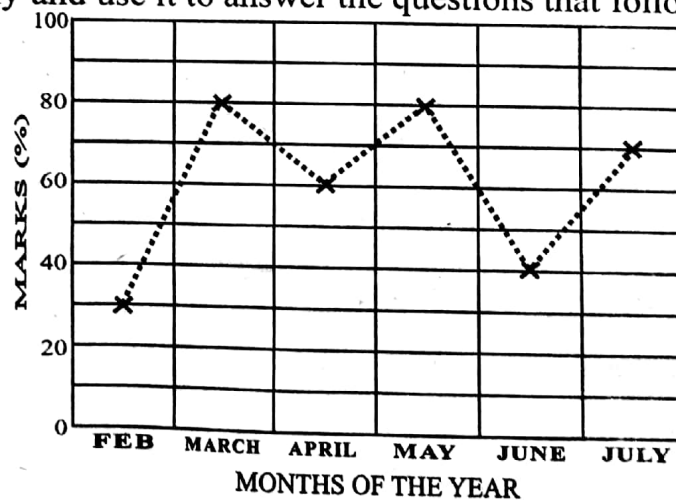
(b) If he paid Shs.34,920/= for all the items after a discount was offered. How much was the discount?

(2 marks)

31. (a) A class has 24 boys and this is 40% of the children in the whole class. Find the number of girls in this class. (2 marks)

- (b) Merida was given $\frac{3}{4}$ of the bread to share it with Jane. Jane ate $\frac{2}{3}$ of the given bread. What fraction of the bread did Merida eat? (2 marks)

32. The graph given below represents the marks obtained by Kasali in Maths in monthly tests. Study it carefully and use it to answer the questions that follow.



- (a) What is the median mark of the graph? (2 marks)

- (b) Find the modality frequency of the graph. (1 mark)