

KAMPALA PRIMARY SCHOOLS'

SKYLINE EXAMINATIONS™

P.L.E – 2022

Set 01

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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| Qn. No. | MARK | SIGN |
|---------|------|------|
| 1 – 4 | | |
| 5 – 8 | | |
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| 21 – 23 | | |
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| 27 – 29 | | |
| 30 – 32 | | |

SECTION A: 40 MARKS

Questions 1 to 20 carry two marks each.

| | |
|------------------------------------|--|
| 1. Work out the sum of 49 and 351. | 2. Write the following numbers starting from the biggest: -1 , 4 , -3 , $+10$, -5 , 0 , 2 |
|------------------------------------|--|

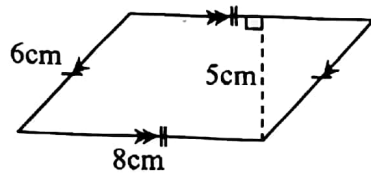
3. Given the following numbers: 8, 2, 0, 1, 5, 3, 6, 4 and 7.
What is the probability of randomly choosing a prime number from the given digits?

| | |
|--|--|
| 4. Simplify: $9K - 5p - 5K + 6p - 8p - 6K$ | 5. Write the time twenty five minutes past midnight in figures in 24hour clock system. |
|--|--|

6. Using a ruler, a pencil and a protractor only, construct an angle of 150° .

| | |
|----------------------------|---|
| 7. What is 12012 in words? | 8. Work out $7 + 5 = \underline{\hspace{2cm}}$ (finite 8) |
|----------------------------|---|

9. Find the area of the figure given below.



10. Omondi has bank notes numbered from KQ600 to KQ699. If each note is worth Shs.20,000/=. How much money does he have?

11. Express $22\frac{1}{2}\%$ as a fraction in its lowest form.

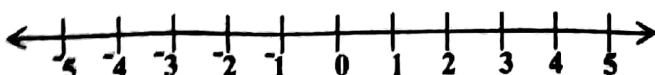
12. Given that Set $W = \{2, 4, 6, 8\}$.
How many subsets can be created from Set W ?

13. The cost of a shirt and a belt are in the ratio 5:3 respectively. If a shirt costs Shs.2,000/= more than the belt. Find the total cost of the two items.

14. Find the value of A : $2^3 \times 2^A = 2^7$

15. Solve for X : $-2 = 4 - X$

16. Show $-1 - -2$ on the number line below.



17. Add:
$$\begin{array}{r} 1\ 1\ 0\ 0\ 1_{\text{binary}} \\ +\ 1\ 1\ 1\ 1_{\text{binary}} \\ \hline \end{array}$$

18. Denis is 24 years old now. Represent his age using tallies.

19. Mukisa travelled a distance of thirty kilometres in two hours and thirty minutes. Calculate his average speed in kilometres per hour.

20. In what time does Shs.20,000/= amount to 20,750/= at an interest rate of 5% p.a.?

SECTION B: 60 MARKS

21. (a) Work out:
$$\frac{1.6 \times 1.2}{0.016}$$

(2 marks)

(b) Express $\frac{1}{8}$ as a decimal.

(2 marks)

22. (a) When a tank is $\frac{3}{4}$ full of water, it holds 9000 litres. Find the number of litres the tank will hold when $\frac{2}{3}$ full.

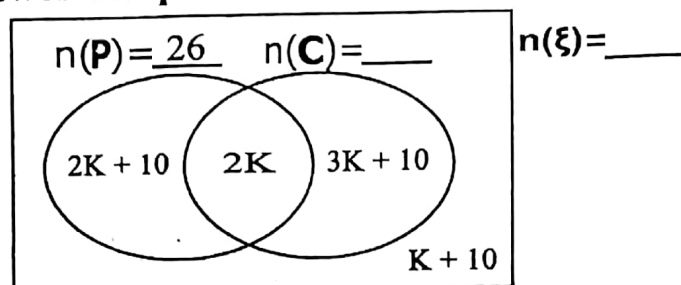
(3 marks)

(b) Solve the inequality: $\frac{2}{3}y + 6 > 8$.

(2 marks)

23. The Venn diagram given below represents people who grow potatoes and cassava in Kasingawa village. The complement of those who grow cassava has 32 people.

Use the diagram to answer the questions that follow.



(a) What is the value of K?

(2 marks)

(b) How many people don't grow potatoes in that village?

(2 marks)

(c) Find the ratio of farmers who grow potatoes only to those who don't grow potatoes.

(2 marks)

24. Three taxis set off from the New Taxi Park at intervals of 20minutes, 30minutes and 40minutes respectively.

(a) After how long did they meet together?

(2 marks)

(b) If they met at 10:30 a.m., at what time will they meet again?

(2 marks)

25. (a) Solve for n: $n - 5 = 8 - (2n + 4)$. (2 marks)

(b) Given that $a = 3$, $b = -1$. What is the value of $3a^2 - 3b$? (2 marks)

26. The table below shows the marks P.7 pupils scored in End of 2nd Term examinations, 2022. Study it and use it to answer the questions that follow.

| | | | | | |
|------------------|----|----|----|----|----|
| Number of Pupils | 30 | 15 | 25 | 40 | 20 |
| Marks scored | 2 | 1 | 1 | 4 | 2 |

(a) What is the modality mark of the class? (1 mark)

(b) Find their median mark. (2 marks)

(c) Work out the probability of the pupils who scored below their average mark. (2 marks)

27. (a) Given that $24_y = 102_{\text{four}}$, find the value of y. (3 marks)

(b) Work out $(0.52 \times 120) - (0.52 \times 20)$ using the distributive property. (2 marks)

28. Kibazo went to the supermarket and bought the following items:

(a) Complete the table correctly.

(5 marks → 1 mark each)

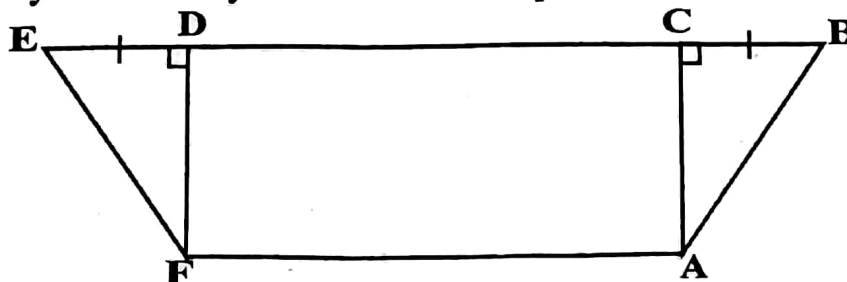
| ITEM | QUANTITY | UNIT COST | AMOUNT |
|-------------|----------|------------------------|--------------|
| Beans | | Shs.3,400/= | Shs.5,100/= |
| Sugar | 3Kg | Shs. _____ | Shs.10,800/= |
| Maize flour | 750gm | Shs.4,000/= each Kg | Shs. _____ |
| Milk | | Shs.3,200/= each litre | Shs.11,200/= |
| TOTAL | | | Shs. _____ |

(b) If he was given Shs.9,900/= as change, find the number of Shs.5,000/= notes he had at the beginning. (2 marks)

29. (a) With the help of a ruler, a pencil and a pair of compasses *only*, construct a triangle XYZ in which side XY = 6cm, angle ZYX = 120^0 and YZ = 7cm. (4 marks)

(b) Measure angle ZXY. _____ (1 mark)

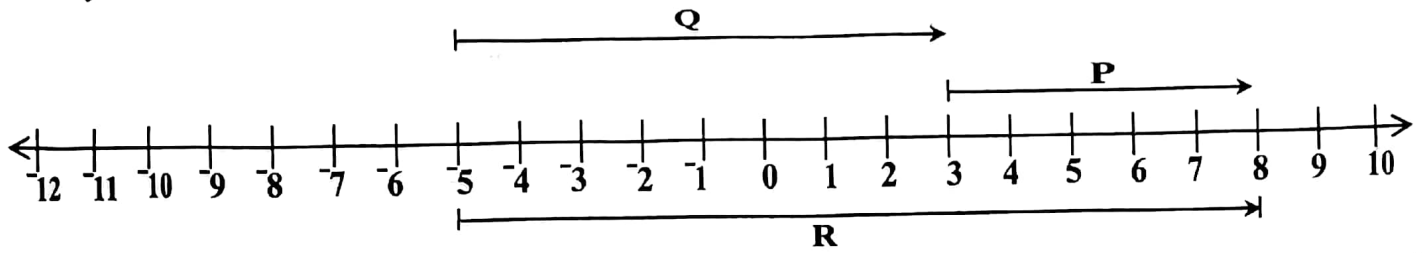
30. The trapezium below is of height 8cm. Sides BD and BA are 19cm and 10cm respectively. Study it carefully and answer the questions that follow.



(a) Work out the perimeter of the figure. (3 marks)

(b) Calculate the area of the trapezium. (2 marks)

31. Study the number line below carefully and use it to answer the questions below.



(a) Write the values of:

(1 mark each)

P _____

Q _____

R _____

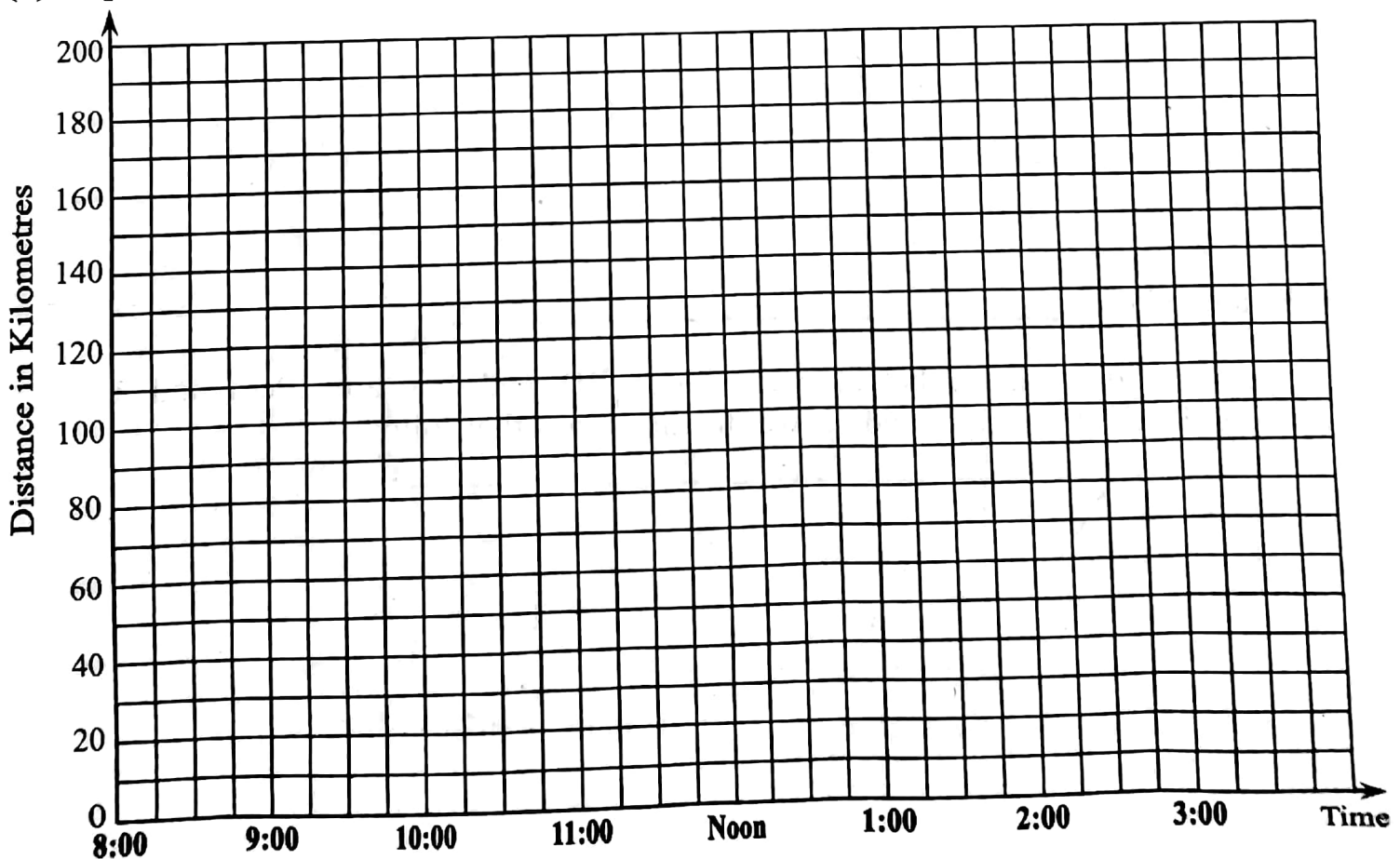
(b) Write down the mathematical sentence shown on the number line.

(1 mark)

32. A bus left town A at 8:00a.m. and moved for 2 hours at a steady speed of 40Km/hr to town B, then broke down for one hour at town B and then continued with the journey to town C at a steady speed of 40km/hr for 1 hour. The bus rested at town C for one hour and then covered the return journey to town A at a steady speed of 40Km/hr.

(a) Represent the journey of the bus on the grid below.

(4 marks)



(b) Work out the average speed of the bus for the whole journey.

(2 marks)