



PERFECT EDUCATION SERVICES - KAMPALA
PRIMARY SEVEN PRE PLE SET THREE EXAMINATIONS

2022

MATHEMATICS

Time Allowed: 2 hours 30 minutes

EMIS No.						Personal No.		
Index No.								

Candidate's Name

Candidate's Signature.....

EMIS Number.....

District Name

SECTION A

1. Workout: $36 + 53$

2. Simplify: $9mn - 7ab - 11mn + 4ab$

3. Write the morning time shown on the clock face below in **24 hour** clock system



5. Express **0.1666.....** as a common fraction

4. Find the sum of the **4th** and **6th** triangular members

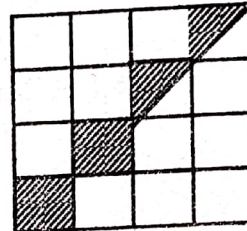
6. Using a ruler, a pencil and a pair of compasses only, construct an angle of **105°** in the space provided below

7. Write **196** in Roman numerals

8. Given that set **P** has **63** proper subsets, find the number of elements in set **P**.

9. Simplify: $7^0 + 7^3$

10. What fraction of the figure below is unshaded,



11. If $a = -8$, $b = -6$ and $c = -2$, find the value of $c(a+b^2)$

12. What number has been expanded to give;

$$(2 \times 10^{-2}) + (5 \times 10^2) + (7 \times 10^{-1}) + (3 \times 10^0)?$$

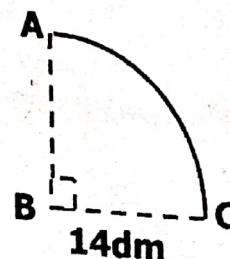
13. The cock was giving $\frac{1}{4}$ of a big chapat to every pupil during break time. If the cock gave out **16** chapats, how many pupils did he serve?

14. The centre angle of a regular pentagon is $3k + 24^\circ$. Find the value of k .

15. Complete the table below.

Number			23
Tally			

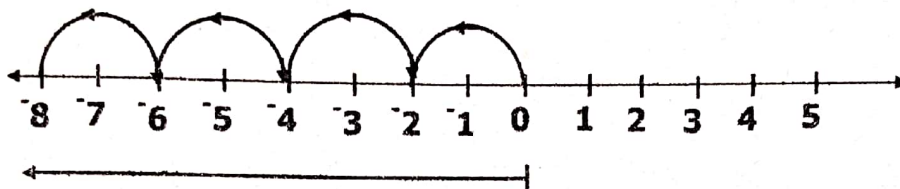
16. Find the length of the arc in the figure below.



17. Workout average of $4+6p$, $2p$, 7 and 5 . find the value of p

18. Find the Greatest Common Divisor (GCF) of 12 and 18 .

19. Write the mathematical statement shown by the number line below.



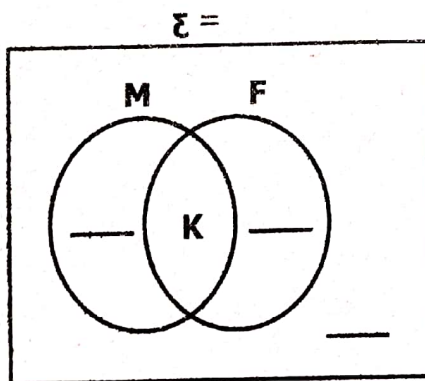
20. Joan bought 2 dozens of pencil each at sh. 4800 and later sold each pencil at sh. 350. Find the loss she made from the sale of all the pencils.

SECTION B

21. During a picnic, all the 39 boys ate chicken (C), $(K+3)$ ate chicken and meat (M) only, $(5K-11)$ ate chicken and fish (F), K boys ate all the three snacks and 5 boys ate only chicken.

- a) Use the information given above to complete the venn diagram below.

(3 marks)



Find the value of K .

(2 marks)

- 22.a) Workout $123_{\text{five}} - 24_{\text{five}}$ and represent the result on an abacus

(3 marks)

b) Change 1101_{two} to a decimal base.

(2 marks)

23.a) Increase sh. 30,000 by $16\frac{2}{3}\%$

(2 marks)

b) Simplify: $\frac{6.48}{1-0.82}$

(3 marks)

24. The sum of the values in the table below is the same vertically, horizontally and diagonal fill in the missing value to complete the table. (5 marks)

___	___	25	14
22	17	16	___
___	21	20	15
13	12	___	26
___	___	___	___

25.a) Find the number whose standard form is 4.061×10^4

(2 marks)

b) Given that $2^{2x} \times 3^2 = 144$, find the value of x

(3 marks)

26. The average age of 7 boys is 12 years, when the 5th and 6th and 7th boy leave the group, the average age becomes 13 years. If the 6th boy who is twice as old as the 5th boy who is 4 years younger than the 7th boy, how old is the 7th boy.

(5 marks)

27.a) Find the multiplicative inverse of $\frac{2}{3}$

(2 marks)

b) A full tank in 16 hours. If all the three taps are opened at the same time, how long will it take the tank to be full?

(3 marks)

28. A rubber costs **shs. 1200** less than the cost of a set. A pen costs **sh.500** more than twice the cost of a set. If all items cost **sh.9100**.

(4 marks)

a) Find the cost of a rubber.

29. The table below shows the items bought by Adikiin from a shop.

Item	Quantity	Unit price	Amount
Soap	3 bars	Sh. 3900 per bar	Sh. _____
Salt	750gm	Sh. _____ per kg	Sh. 1350
Apples		Sh. 2000 per 3 apples	Sh. 12000
		Total	Sh. _____

(3 marks)

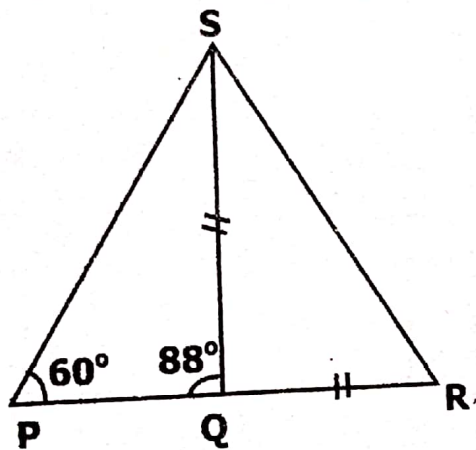
a) Complete the table.

b) If she was given a change of **sh. 4950**, how many notes of five thousand shillings each did she have?

(2 marks)

- 30.a) The interior angle of a regular polygon is 36° more than its exterior angle. How many sides has the polygon? (3 marks)

- b) In the figure below angle $PQS = 88^\circ$ and angle $QPS = 60^\circ$. Find the size of angle PSR . (3 marks)

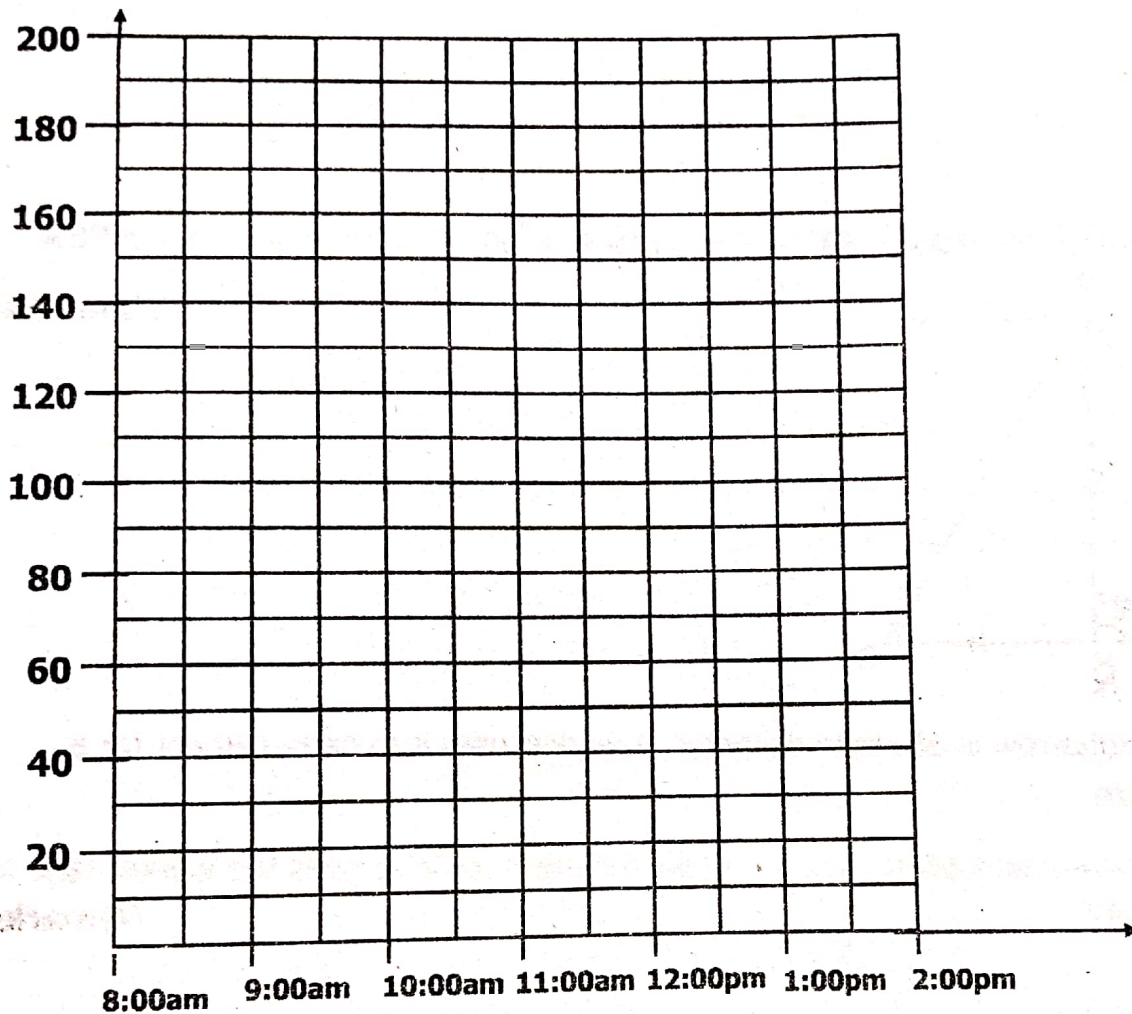


31. A wheel of a wheelbarrow is 35cm in diameter. A worker uses it to carry cement for a distance of 4.4km .

- a) If the wheelbarrow makes 50 revolutions every minute, how long does the worker take to transport the cement? (4 marks)

32. Akot left town **M** at **8:30am** and drove for **2 hours** at a speed of **55km/hr** to town **L**. She then rested for **30 minutes** before driving for **1½ hours** to town **K** at a speed of **60km/hr**. After a **30 minute** rest, she left town **K** and drove back to town **M** at a speed of **80km/hr**.

a) Draw Akot's Journey on the graph below



b) Find the average speed for the whole journey.

(2 marks)