PERFECT EDUCATION SERVICES - KAMPALA

PRIMARY SEVEN PRE PLE SET THREE EXAMINATIONS 2022

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.

EMIS No.						Personal 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

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

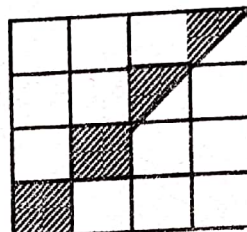**5.** Express **0.1666**......as a common fraction

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

1

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;

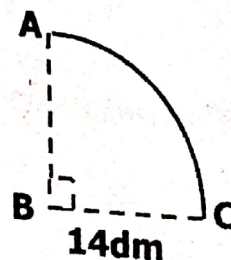$$(2\times10^{-2}) + (5\times10^{2}) + (7\times10^{-1}) + (3\times10^{0})?$$

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 $3k+24^{o}$. Find the value of **k**.
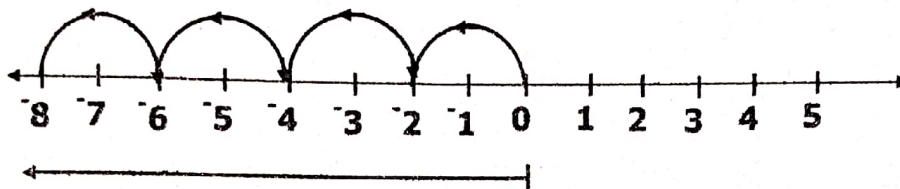
15. Complete the table below.

Number			23
Tally		₩₩IIIII₩₩	

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

14dm

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**.

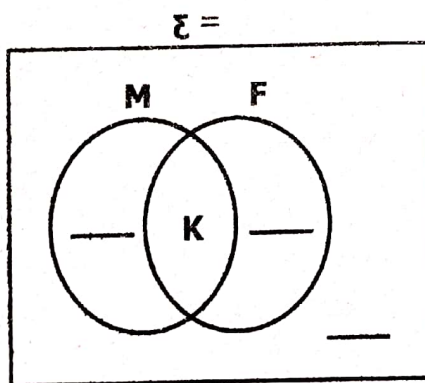19. Write the mathematical statement shown by the number line below.

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**_{five} − **24**_{five} and represent the result on an abacus **(3 marks)**

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

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

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

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 from 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 **5**th and **6**th and **7**th boy leave the group, the average age becomes **13 years**. If the **6**th boy who is twice as old as the **5**th boy who is **4 years** younger than the **7**th boy, how old is the **7**th boy. (**5 marks**)

(**2 marks**)

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

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.

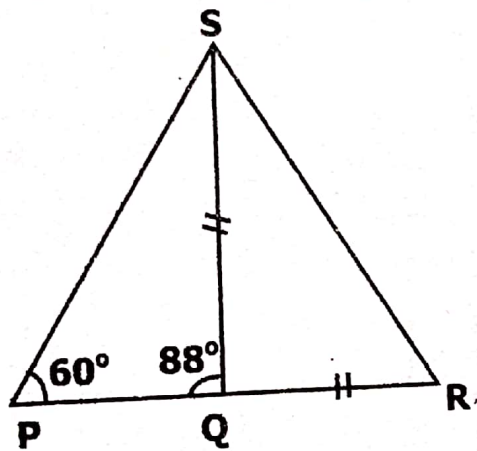| Item	Quantity	Unit price	Amount
Soap	3 bars	Sh. 3900 per bar	Sh. _____
Salt	750gm	Sh._____per kg	Sh. 1350
Apples		Sh. 2000 per 3 apples	Sh. 12000
		Total	Sh. _____

(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°** and angle **QPS = 60°**. Find the size of angle **PSR**.
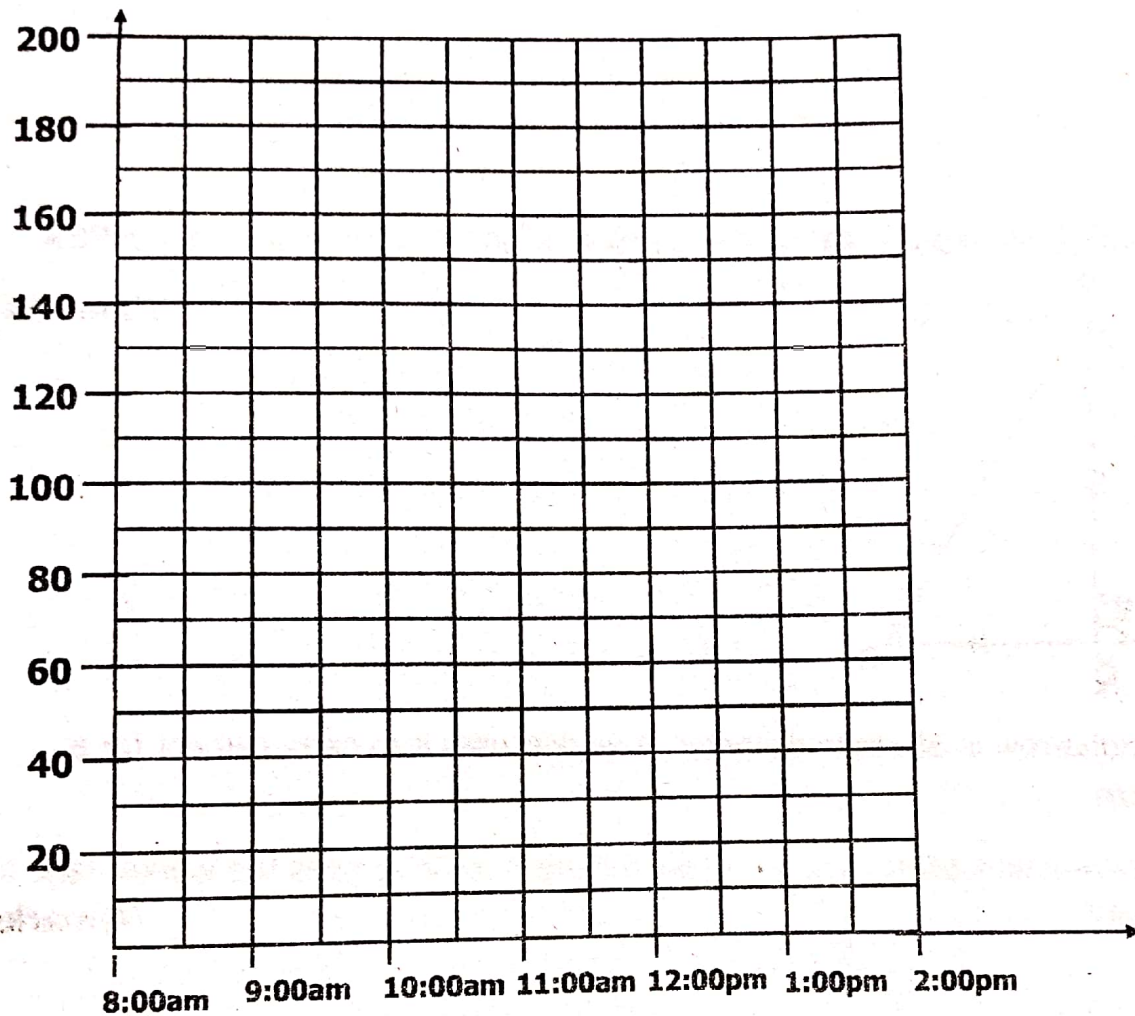
(3 marks)

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

a) If the wheel barrow 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 **1½hours** 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)