SIR APOLLO KAGGWA SCHOOLS SINCE 1996
PLE PREP TEST VII TERM 3 2023
PRIMARY SEVEN
MATHEMATICS

Time allowed: 2 hours 30 minutes

Index No.

EMIS NO.						Personal No.			

Candidate's Name: _____

Candidate's Signature: _____

District Name: _____

School Name: _____

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. Answer **ALL** questions. All answers to both Sections A and B must be written in the spaces provided.

5. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.

6. Unnecessary alteration of work may lead to loss of marks.

7. Any handwriting that cannot be easily read may lead to loss of marks.

8. Do **not** fill anything in the boxes indicated for Examiner's use only.

Turn over

Questions 1 to 20 carry 2 marks each
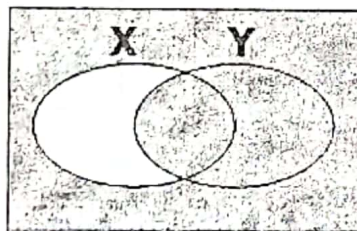
1. Divide **26** by **2**

2. Solve: $2(a - 1) = 6$

3. Write **MIX** in Hindu Arabic numerals

4. Find the next number in the sequence.

   22, 24, 27, 32, 39, _____
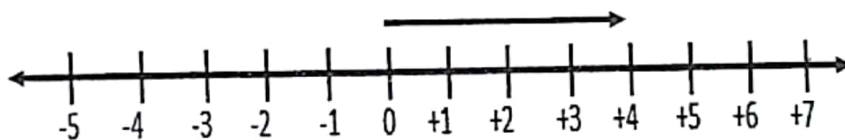
5. What region is shaded in the Venn diagram below?

6. Work out : $8 + 12 \div 4$

7. Abbo drove at a speed of **36km/hr**. Express Abbo's speed in **m/s**.

8. Find the Greatest Common Factor of **18** and **54**.

9. The range in Babirye's scores is **37**. If Babirye's lowest score is **59**, find her highest score.

10. Complete the number line below showing the statement
    $^+4 - (^-3) = {^+7}$

11. Given that **a=b², b= ⁻3** and **c=5**
    Find the value of **c(a−b)**.

12. A circular flower garden was fenced using **55** poles fixed at intervals of **0.8 metres**. Find the distance round the flower garden.

13. Express a quarter past mid night to a **24-hour** clock system.

14. Using a ruler and a pair of compasses only, construct a line through point **M** parallel to line **KL**.

K————————————L

• M

15. Tito took **31**days weeding his cassava garden. He completed weeding the garden on Friday. What day of the week did he start weeding his garden?

16. Work out: $3 - 1\frac{2}{3}$

17. The marked price of a dress is **Sh.15,000**. When a customer buys the dress at a discount of **Sh.3,000**, the trader gains **Sh.2,000**. At what price does the trader buy the dress?

18. Thirty packets of biscuits weigh **6kg**. calculate the weight of each packet in grammes.

19. In the regular polygon below, find the size of angle marked p.
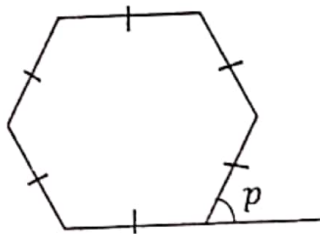
20. Find the median of the fractions below;
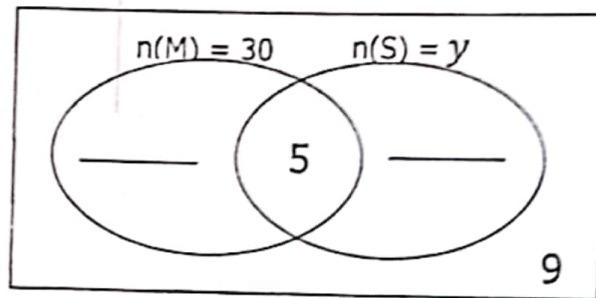
$$\frac{1}{2}, \frac{2}{3}, \frac{2}{5}$$

SECTION B: 60 MARKS
Answer all questions in this section
Marks for each Question are indicated in the brackets.

21. In a school, **30** teachers teach mathematics **(M)**, y teach science **(S)** and **5** teach both mathematics and science. **$(2y - 11)$** teachers do not teach mathematics.

    (a) Use the above information to complete the Venn diagram below.

    (02marks)

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n(M) = 30      n(S) = y

  ___     5    ___

                       9
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    (b) Find the value of y.

    (03marks)

22. (a) Subtract **0.254** from **3**

    (02marks)

    (b) work out: $\dfrac{1.43 + 2.17}{0.3^2}$

    (03marks)

23. The table below shows the costs of United States dollars **(USD)** and Kenya shillings **(KES)** in Uganda shillings **(UGX)** on Monday, Tuesday and Wednesday of a certain week. Study and use it to answer the questions that follow:

Currency	Unit cost in Uganda shillings (UGX)		
	Monday	Tuesday	Wednesday
United States dollar (USD)	3745	3735	3746
Kenya Shillings (KES)	25.15	25.0	24.46

(a) On which day did the Kenya shilling record the highest cost?

(01mark)

(b) Work out the amount of Uganda shillings Aturinde got from 250 United States dollars (USD) on Wednesday.

(02marks)

(c) Masinde converted 74,700 Kenya shillings to US dollars on Tuesday. Calculate the number of US dollars he got.

(03marks)

24. The time table below shows how a bus moved from Soroti via Mbale to Kampala. Study and use it to answer the questions that follow

SOROTI	Departure time from Soroti	8:30 am
	Time taken to travel from Soroti to Mbale	1 hr 25 mins
MBALE	Arrival in Mbale	....
	Departure from Mbale	10:30 am
	Time taken to travel from Mbale to Kampala	....
KAMPALA	Arrival in Kampala	2:30 pm

a) Complete the time-table by filling in the missing information.
(02marks)

b) For how long did the bus stop in Mbale.

(01mark)

c) Find the total time taken by the bus to cover the whole journey while travelling.
(02marks)

25.Cylindrical tins of diameter **10cm** and height **7cm** were filled with juice. The tins were then packed into a box measuring **50cm** long by **40cm** wide by **20cm** high. *(Use π as $\frac{22}{7}$).*

a) Find the total number of tins that filled the box. (2marks)

b) Calculate the total capacity of the juice in the box in litres. (3marks)

26. Given that 🧍 represents 36 boys and 🧍‍♀️ represents 48 girls.
Study the pictograph below which shows the number of pupils in a school and use it to answer the questions that follow

Class	Number of Pupils					
P.1	boy	boy	girl	girl		
P.2	girl	boy	girl			
P.3	girl	girl	boy			
P.4	girl	girl	boy	girl	boy	
P.5	boy	girl	boy	girl	boy	girl

(a) Which two classes have the same number of boys?

(01mark)

(b) Find the average number of pupils in the school.

(02marks)

(c) Calculate the percentage of girls in the school.

(02marks)

27. A circular plate whose area is **616 cm²** was cut from a rectangular metal sheet **ABCD** of length **50 cm** as shown below.

(Use π as $\frac{22}{7}$)
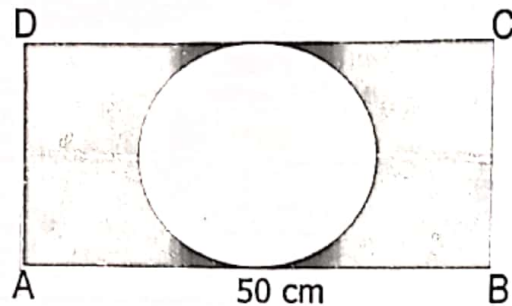
(a) Find the width of the metal sheet.

(03 marks)

(b) Calculate the area of the metal sheet that remained after cutting the circular plate.
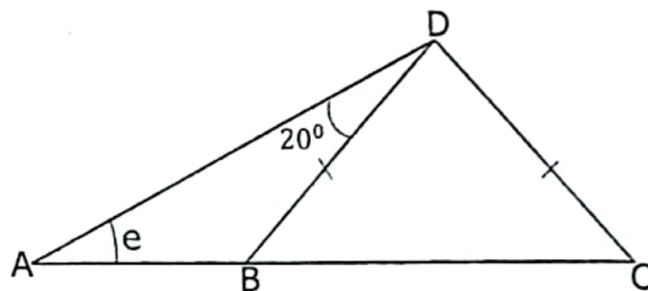
(02 marks)

28. Opio has $(3t + 150)$ cows, $(1200 - t)$ hens and $(2t - 500)$ goats on his farm. If there are three times as many cows as goats on Opio's farm;

(a) Find the value of t.

(03 marks)

(b) Find the number of hens on Opio's farm.

(01 mark)

29. In the figure below, **BCD** is an isosceles triangle. Angle **BDC** is three times angle **BAD**, angle **BDA** $= 20^0$ and angle **BAD**=e.

(a) Find the value of **e** in degrees.

(03marks)

(b)   Find the size of angle **ABD**

(02marks)

30. Mugerwa sold a phone to Nagawa at **Sh. 340,000** making a loss
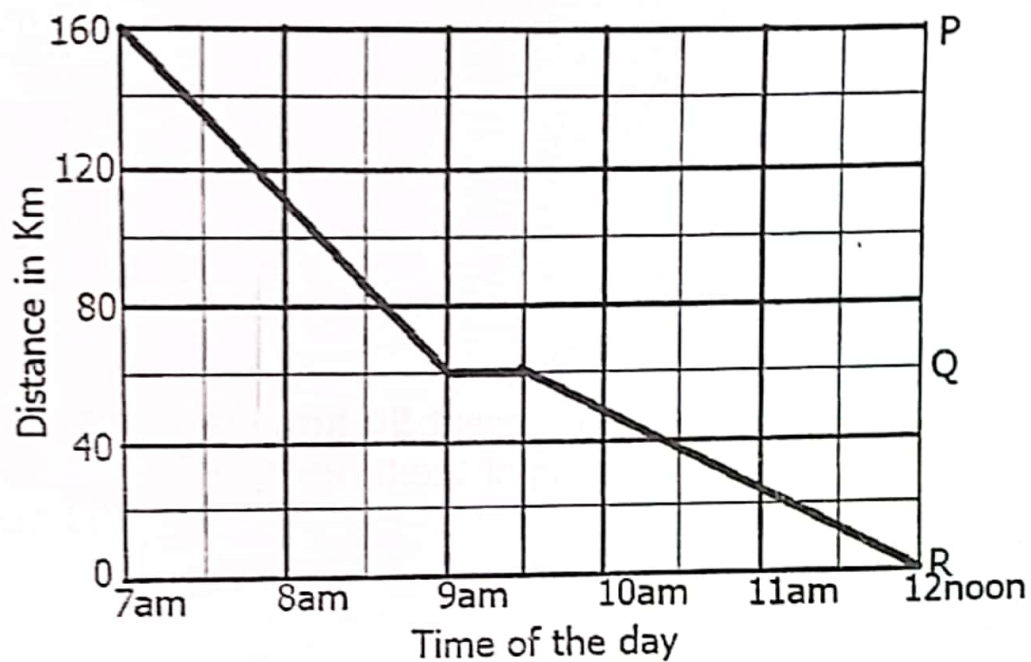   of **15%.** Nagawa later sold the phone at a profit of **25%.**
(a) Calculate the amount of money Mugerwa paid for the phone.

(03 marks)

(b)   Find the profit Nagawa made.

(02 marks)

31.A motorist travelled from town **P** to town **R** via town **Q**. Study the graph below carefully and use it to answer the questions that follow.

(a) What was the departure time of the motorist?

(01mark)

(b) For how long did the motorist stay at town **Q**?

(01mark)

(c) How far is town **Q** from town **R**?

(01mark)

(d) Calculate the motorist's average speed over the whole journey?

(02marks)

32. Lake **A** is **300 km** west of Lake **K** and Lake **G** is **500 km** from Lake **K** on a bearing of **240⁰.**

(a) Draw a sketch diagram to show the location of the three lakes.

(01 mark)

(b) Using a scale of **1 cm** to represent **50 km**, draw an accurate diagram to show the location of the three lakes. ·

(03 marks)

(c) From your accurate diagram, find the bearing of Lake **A** from Lake **G.**

(01 mark)

THE END