ENTEBBE HOT FIRE EXAMINATIONS BOARD

PRE-PLE SET 1 2024

MATHEMATICS

Candidate's Name: _____

Candidate's Signature: _____

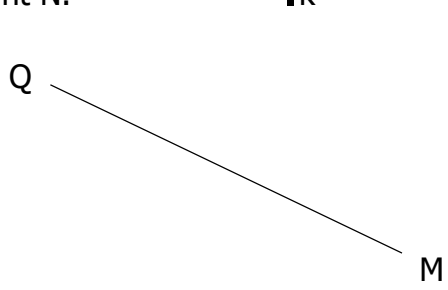
School Name: _____

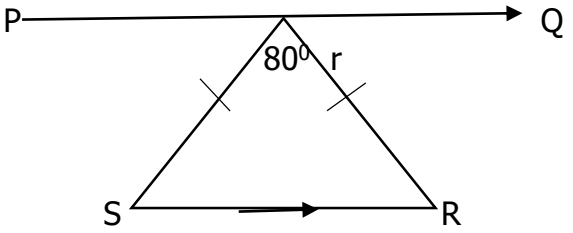
District Name: _____

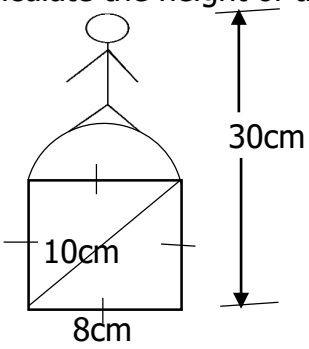
Read the following instructions carefully:

1. This paper has two sections: A and B.
   Section **A** has **50** questions and Section **B** has **5** questions.
2. Answer **all** questions. **All** the answers to both sections **A** and **B** must be written in spaces provided.
3. A**ll** answers must be written using a **blue** or **black** ball point pen or ink. Any work written in the pencil will not be marked.
4. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.
5. Do not fill anything in the table indicated.
   "**For Examiners' Use only"** and boxes inside the question paper.

SECTION A

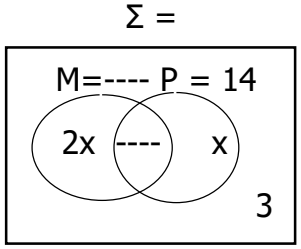
1	Work out 4tens x 2ones	2	Write 419 in Roman numerals	
3	Solve $20 - 2y = 6$	4	Given that set P has 15 proper subsets. Find the number of elements in set P.	
5	Using a ruler, a pencil and a pair of compasses only, drop a perpendicular bisector from point K to meet line QM at point N. 	6	Given that ☆ represents $2\frac{1}{2}$ stars. Draw pictures to represent 10 stars.	
7	4 men can dig a piece of garden in 12 days How many more men are needed to dig the same piece of garden in 8 days?	8	Joan got $12\frac{1}{2}$ % in a Math contest. What fraction of the score did she get?	

9	Tom had 12 jerry cans of 20 litres of milk. He served his customers using 300ml bottle till all jerry cans became empty. How many customers did he serve?	10	Cheptegei can run 500metres in 10 seconds. Express his speed in km/h.	
11	Prossy is the 9^{th} from one side and the 15^{th} from the other side of the people in line for head count. How many people are in the line?	12	Simplify: $8m - 2y - m + 6y$	
13	In the figure below, line PQ is parallel to line SR. Find the value of r.  	14	A taxi driver left Masaka at 8:45am and reached Kampala at 10:00am. If it covered a distance of 1150km, calculate the average speed at which the taxi was travelling.	
15	What number has been decreased in the ratio of 2:5 to give 400?	16	The perimeter of a square is 32cm. find its area.	

17	Solve for **w** in: $3^w \times 9 = \frac{1}{27}$	18	Jessica woke up at 15 minutes to 1 0'clock in the morning. Express the time she woke up in 24 hour clock system.	
19	The average weight of 3 boys is 80kg. If one of the boys weighs 90kg, calculate the average weight of the other 2 boys.	20	Below is a boy standing on a semi-circular wood board placed on a squared cement block. Calculate the height of the boy. 	

SECTION B

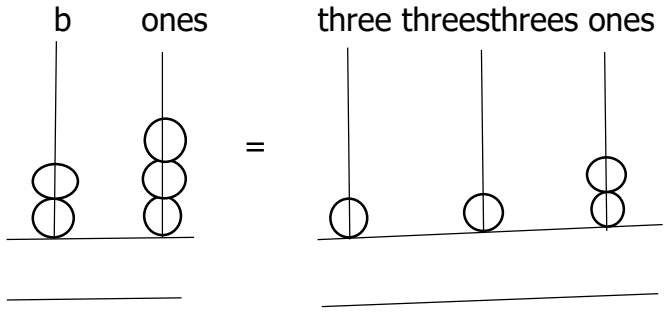
21. In a class, 14 pupils enjoy pepsi (P), 3 pupils none and others enjoy mirinda (M) as shown on the venn diagram below



a) If the number of pupils who like neither of the two drinks is ⅓ those who like both drinks, find the value of **X**. 2mrks

b) How many pupils enjoy only one type of drinks? 1mrk

22. a) Find the value of **b** on the abacus below. 2mrks



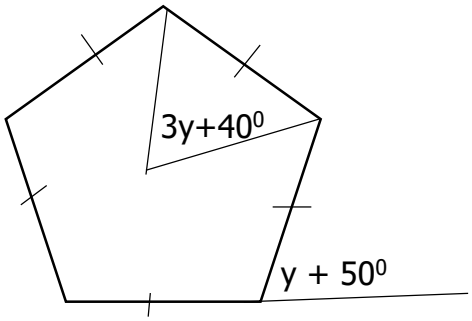
b) Change 1111_{two} to base five. 2mrks

23. A man spent $\frac{5}{8}$ on food, ⅓ of the remainder on cloths and the rest on airtime.

a) What fraction was spent on airtime? 3mrks

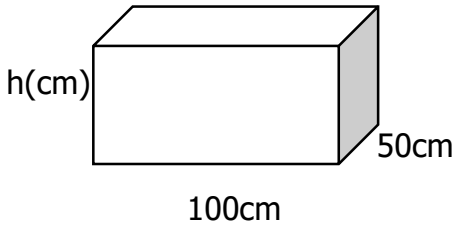
b) If he spent shs.10,000 0n airtime, calculate his monthly salary. 2mrks

24. a) In the diagram below, find the value of **y** in degrees. 2mrks



b) The exterior angle of a regular polygon is 100^0 less than its interior angle. Find the angle sum of the interior angles of the polygon. 3mrks

25. James and Alex were told to fill a rectangular tank. James used 5litre jerry can which is a quarter of Alex's jerry can as shown on the diagram below.



a). If they filled the tank 6times each, calculate the value of **h**. 3mrks

b). Calculate the surface area of the tank. 3mrks

26. With the aid of a ruler, a sharpened pencil and a pair of compasses only, constructs construct a parallelogram ABCD such that length CD = 7cm, length CB = DA = 4cm and angle BCD = 120^0. Drop a perpendicular from B to meet line CD at point K. 5mrks

27. Below is the table showing currency exchange rates for various countries as at Entebbe airport forex bureau. Study it carefully and use it to answer the questions that follow.

Currency	Buying	Selling
1 Euro	Ughs. 4400	Ugshs. 5200
1 dollar	Ughs. 3500	Ugshs. 4000
1 pound sterling	Ugshs. 4000	Ugshs. 5000

a) If the manager of the forex bureau got 800 dollars and 200 pounds as service award, how much Uganda shillings did the manager get that day? . 2mrks

b) If a trader had 300 Euros to use for delivery payment during a travel to America, how many dollars will the trader get from the forex bureau during exchange? 3mrks

28. Mitchelle and Peter shared some apples. Peter got 9 apples less than Mitchelle. Peter then shared his apples among his two children Mutebi and Apio in the ratio of 2:7 respectively. If Apio got 10 more apples than Mutebi,

a) Express Mitchelle's to Peter's share as a ratio. 3mrks

b) If each apple costs shs.300, how much did Mitchelle pay for the apples? . . 2mrks

29. The table below shows the expenditure of a certain customer as found damped in Owino market. Complete the table. 5mrks

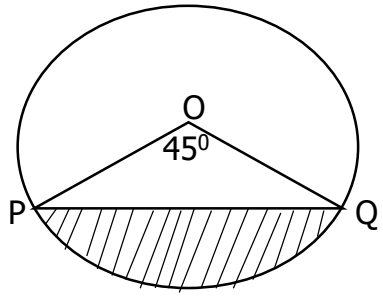
Item	Quantity	Unit cost	Amount
Meat	$1\frac{1}{2}$ kg	Shs.4,000	Shs…….
Rice	$2\frac{1}{2}$ kg	shs……..	shs.5,000
Sugar	…… kg	Shs.800	Shs.1,200
Simsim	500g	Shs…….	Shs…….
Total expenditure			Shs.30,200

30. a) The area of a Rhombus is $96cm^2$. If one of the diagonals is 16cm, find the second diagonal. 2mrks

b). Calculate the perimeter of the Rhombus. 3mrks

31. The sum of 3 consecutive odd numbers is 33. If the largest number is t, find these numbers. 4mrks

32. In the figure below, O is the centre of the circle. OP = OQ = 20cm



Find the area of the shaded part in the above figure. (take Л = 3.14) 5mrks

GOOD LUCK