

# GREENHILL PRIMARY SCHOOLS

## PRE-PLE JOINT MOCK EXAMINATION 2024

### (SET V)

### ***MATHEMATICS***

***Time allowed: 2 hours 30 minutes***

**Index No.**

Random No.						Personal No.		

**Candidate's Name:** .....

**Stream:** ..... **Campus:** .....

**Signature:**.....

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.**

**Read the following instructions carefully**

1. This paper has two Sections: A and B.
2. Section A has 20 answer questions (40 marks)
3. Section B has 12 questions (60 marks)
4. Answer ALL questions. Answers to both sections must be written in the spaces provided.
5. All answers must be written using blue 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 box indicated for examiner's use only.

<b>For Examiner's use only</b>	
<b>A</b>	
<b>B</b>	
<b>TOTAL</b>	

**SECTION A: (40 MARKS)**

1. Work out: 
$$\begin{array}{r} 22 \\ \times 4 \\ \hline \\ \hline \end{array}$$

2. Write "Nine hundred four thousand twenty" in figures.

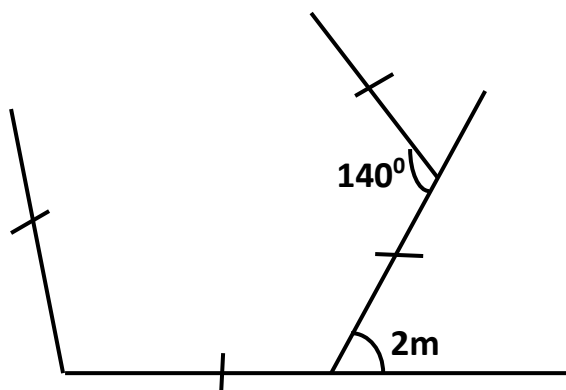
3. Work out;  $3 - 5 =$  \_\_\_\_\_ (finite 8)

4. Work out;  $4 - \frac{3x}{5} = 16$

5. Given that set  $R = \{\text{factors of } 12\}$ , Set  $Q = \{\text{prime numbers less than } 12\}$ , find  $n(R - Q)$ .

6. Simplify:  $\frac{1}{3} - \frac{1}{5}$

7. Find the value of  $m$  in the regular polygon represented by the diagram below.



8. Using distributive property, work out;  $(2.5 \times 1.5) - (2.5 \times 0.5)$

9. A lesson that started at 11:20a.m. ended at 1:20p.m. How many hours did the lesson take?

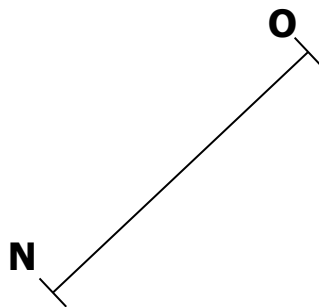
10. Find the value of  $m$  in  $2^m \div 4 = 1$

11. Joan sold a goat for sh. 320,000 making a 20% loss. Find the amount of money Joan paid for the goat.

12. Solve and find the solution set for;  $4x \geq 16$

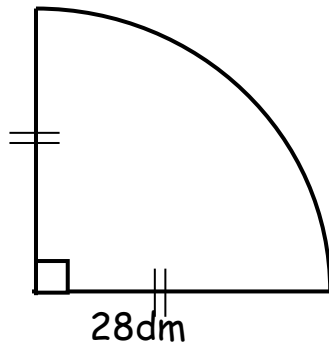
13. Express  $2\frac{1}{5}$  as a decimal number.

14. With a help of a ruler, a pencil and a pair of compasses only, bisect line  $\overline{ON}$  below.



15. Mary, Daniella, Joan and Barbara have an average mass of 48kg. If Barbara weighs 52kg, find the total mass of the remaining three girls.

16. Find the perimeter of the figure below. (Take  $\pi$  as  $\frac{22}{7}$  )



17. In a certain factory, 3250 bars of soap are equally packed in 25 boxes.  
How many bars of soap are in each box?

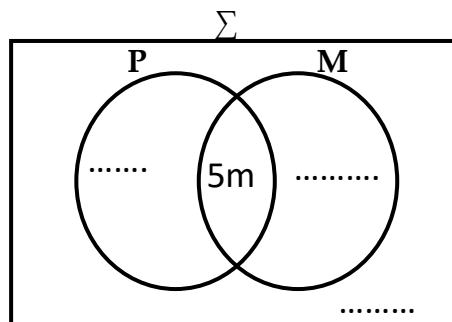
18. Find the square of 0.7.

19. A motorist covered 270km in 3 hours 20 minutes. At what speed was he driving?
20. Write XCIX in Hindu Arabic numerals.

### SECTION B

21. In a class,  $2m - 5$  pupils like sweet potatoes(P) only,  $5m$  like both sweet potatoes and matoke(M), 20 like matoke while 6 like neither of the two.
- (a) Use the above information to complete the Venn diagram below.

**(3 marks)**



- (b) Given that 16 pupils like sweet potatoes, find the total number of pupils in the class

**(2 marks)**

22. The table below shows how money is exchanged from Uganda shillings to other currencies and vice versa

<b>Currency</b>	<b>Buying rate(Ugsh.)</b>	<b>Selling rate (Ug sh.)</b>
Rwanda Francs(RF)	2.8	3.0
Tanzania shillings (TZsh.)	1.37	1.4
Kenya shillings (Ksh)	28	30

- a) Amos got Ugsh. 9030000 from his farm products. How much in Kenya shillings did he get?

**(2 marks)**

- b) Sarah saved Tz Sh. 240,000 in her piggy bank. How much did she save in Rwanda Francs?

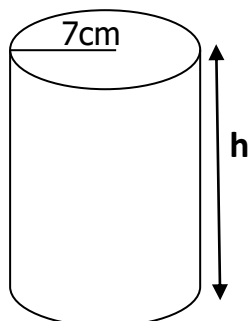
**(3 Marks)**



23. (a) With the help of a ruler, a pencil and a pair of compasses only, construct a quadrilateral MNPO such that  $\overline{MP} = 8\text{cm}$  and  $\overline{NO} = 6\text{cm}$ .  
(4 marks)

(c) Name the quadrilateral formed. (1 mark)

24. The container below holds 15.4 of water when completely full. Find the value of  $h$ . (4 marks)



25. The average of 4 consecutive odd numbers is 16. If the first number is  $y$ , find the numbers. **(5 marks)**

26. The ratio of the interior angle to the exterior angle of a regular polygon is 7:2 respectively.

(a) Name the polygon. **(3 marks)**

(b) Find its interior angle sum. **(3 marks)**

27. In a class,  $\frac{1}{3}$  of the pupils are boys and the rest are girls.

$\frac{1}{4}$  of girls are in boarding and  $\frac{1}{2}$  of boys are in day school. If there are 480 pupils in a class,

(a) how many girls are there? **(2 marks)**

(b) find the number of pupils in day school. **(3 marks)**

28. (a) Work out:  $4\ 3\ 2_{\text{five}}$

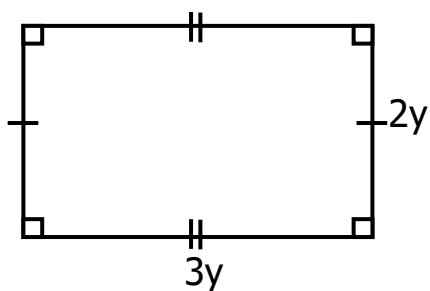
$$\begin{array}{r} 4\ 3\ 2_{\text{five}} \\ - 1\ 4\ 4_{\text{five}} \\ \hline \end{array}$$

**(2 marks)**

(b) Express  $32_{\text{six}}$  in binary base.

**(3 marks)**

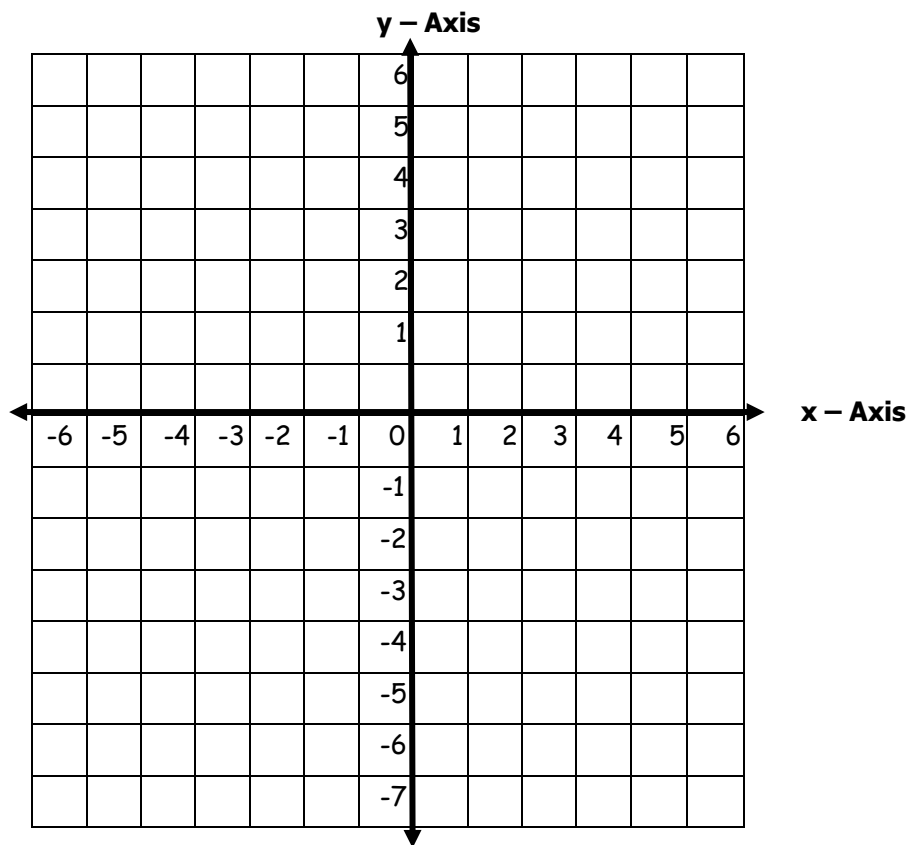
29. Study the figure below and use it to answer the questions that follow.



(a) Given that its area is  $96\text{cm}^2$ , find the value of  $y$ . **(2 marks)**

(b) Calculate its perimeter **(2 marks)**

30. (a) Using the co-ordinate graph below, plot  $A(3, 0)$ ,  $B(3, -5)$ ,  $C(-5, -5)$   
 $D(-2, 0)$  **(4 marks)**



- (b) Join  $A$  to  $B$ ,  $B$  to  $C$ ,  $C$  to  $D$  and  $D$  to  $A$  and name the polygon formed.

**(2 marks)**

31. Brandon borrowed sh. 2,400,000 from a bank that offers a simple interest rate at 12% per year. If he paid it after a period of 3 years,  
 (a) calculate the simple interest he paid. **(3 marks)**

(b) how much money did he pay back at the end of that period?

**(2 marks)**

32. Byamukama went to the market with sh. 50,000. He bought 2 pens and 4 books. The cost of each pen was sh. 400 less than the cost of a book. If he was given change of sh.44200, how much was the cost of a book?

**(5 marks)**

\*\*\*\*\* END \*\*\*\*\*