HILLSIDE PRIMARY SCHOOL

# PRE-PRIMARY LEAVING EXAMINATIONS

## 2022

## MATHEMATICS (SET SEVEN)

*Time Allowed: 2 Hours 30 Minutes*

| Index No. | Random No. | | | | | | Personal No. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

**Candidate's Name**.....**Stream**.....

**Candidate's Signature**.....

**EMIS No**.....

**District Name**.....

**Read the following instructions carefully:**

1. The paper has **two** sections: **A** and **B**. Section A has 20 questions and Section B has 12 questions

2. Answer **all** questions. All answers to both sections **A** and **B** must be written in the spaces provided.

3. **All** working must be done using a blue or black ball-point pen or fountain pen. Any work written in pencil other than graphs and diagrams will not be marked

4. No calculators are allowed in the examination room.
5. Unnecessary changes in work may lead to loss of marks. Any handwriting that cannot easily be read may lead to loss of marks.
6. Do not fill anything in boxes indicated: **"For Examiners' Use Only"** and those inside the paper.

| FOR EXAMINERS' USE ONLY | | |
|---|---|---|
| Qn. No. | MARKS | EXRS' NO |
| 1- 5 | | |
| 6- 10 | | |
| 11- 15 | | |
| 16- 20 | | |
| 21- 22 | | |
| 23- 24 | | |
| 25- 26 | | |
| 27- 28 | | |
| 29- 30 | | |
| 31- 32 | | |
| TOTAL | | |

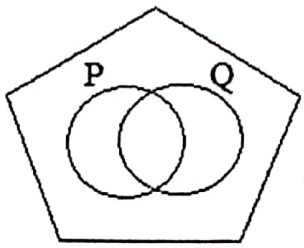
## SECTION A (*02 Marks each*)

1. Work out 27 + 18

2. Write **Fifty six thousand four hundred seven** in figures.

3. Simplify 3y –k + 4y -2k

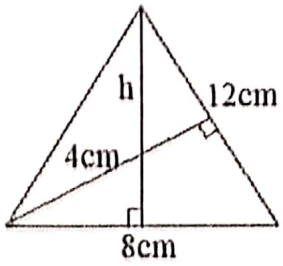
4. In the diagram below, shade neither P nor Q.




5. Find the G.C.F of 16 and 24

6. Today is Tuesday, what day of the week will it be after 40 days?

7. Find the value of h in the diagram below;

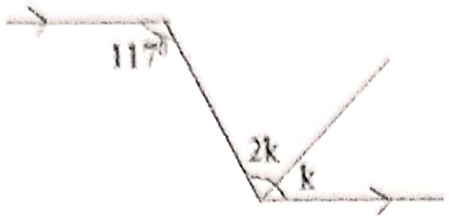



8. A night prep ended at 9:15pm. Express this ending time in a 24-hour clock system.

9. Complete the sequence correctly.

   9, 16, 25, 36, 49, _____

10. In the diagram below, find the value of **k**




11. In a line of vehicles, a Toyota Harrier is the $6^{th}$ and $19^{th}$ from either side of the line. How many vehicles are in that line?

12. Set D = { 4, w, 8, pen }. How many proper subsets are in set D ?

13. Given that a = 3b and b= 2, find the value of $2a + b^3$.

14. Express **414** in Roman numerals.

15. Simplify $\frac{3}{5} - \frac{1}{3}$

16. A trader deposited sh.600,000 in a SACCO that offers a simple interest rate of 10% per month for 4 months. Calculate her simple interest.

17. John is two thirds as old as Alex. Alex is (x) years old. The product of their ages is 24 years. How old is John?

18. Find the value of 5 in the number 25834.

19. Find the range of $\bar{9}$ and $\bar{2}$.

20. Without using a pair of compasses, draw an angle of $105^0$.

## SECTION B (*60 Marks*)

21. The length and width of the rectangle below are in the ratio of 5:3 respectively.

If the perimeter of the above rectangle is 48cm, find its area. (***05 marks***)

22. a) Work out (5.7 x 15) + (85 x 5.7) using distributive property. (***02 marks***)

b) Work out $\frac{0.24 \times 1.5}{0.6 \times 0.5}$ (***03 marks***)

23. Given that $y = 3x-1$, complete the table below, ***(05 marks)***

| x | 2 | | -1 | | $\frac{1}{3}$ |
|---|---|---|---|---|---|
| y | | 8 | | 2 | |

24. a) Using a ruler, a pencil and a pair of compasses only, construct a parallelogram ABCD in which line BC = 8cm, angle CBA = $60^0$ and line CD = 4cm. ***(05 marks)***

b) Measure the length of diagonal AC. (*01 mark*)

25. In Koketo primary school, $\frac{1}{6}$ of the pupils like posho, $\frac{2}{5}$ of the remainder like rice and the rest like Irish potatoes. If 550 pupils like Irish potatoes, how many pupils are in the school? (*05 marks*)

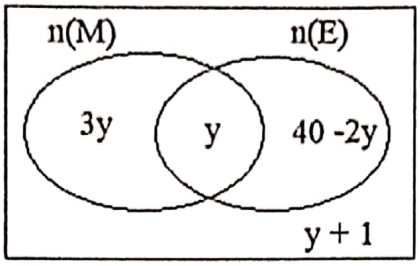
26. A candidate went shopping and bought the following items;

**8 pens at sh.500 each**
**2 rulers each at sh.1500**
**10 pencils at sh.450 for every two pencils.**

a) Calculate his total expenditure. (*04 marks*)

b) If he had 5-two thousand shilling notes, find his change. (*01 mark*)

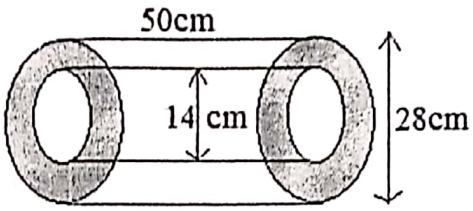
27. The Venn diagram below shows the number of pupils who like Maths(M) and English(E). Use it to answer the questions that follow;




a) If the number of pupils who like Maths is equal to the number of pupils who like English, find the value of **y**. (*03 marks*)

b) How many pupils are in the class? *(02 marks)*

28. Study the hollow cylinder below carefully. Find the volume of the concrete . *(05 marks)*

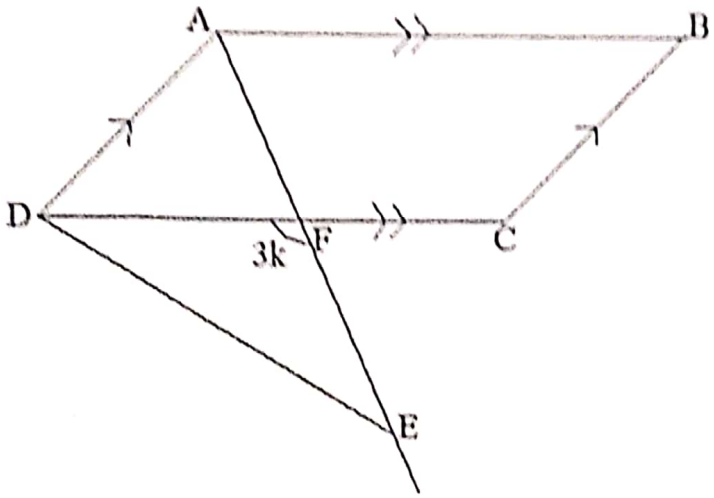


29. A motorist left town P at 7:00am and reached town B at 9:30am at a speed of 60km/hr. He rested for 30 minutes at town B and the returned back to town A at a speed of 75km/hr.

a) Find the distance from town A to town B. ***(03 marks)***

b) Calculate his average speed for the whole journey. ***(02 marks)***

30. In the diagram, line DF bisects angle ADE, angle DCB = $130^0$ and angle FAB = $60^0$.Find the value of k. ***(04 marks)***



31. a) Solve $\frac{8}{p} + 5 = 9$ (*02 marks*)

b) Solve $5(r - 1) - 2(r-2) = -3$ (*03 marks*)

82. a) Town **P** is 55km West of town **Q**. Town **R** is 70km from town **P** on a bearing of $235^0$. Using a scale of 1cm to represent 10km, draw an accurate diagram to show the three towns. (***04 marks***)

b) Find the bearing of town R from town Q. (***01 mark***)