HILLSIDE PRIMARY SCHOOL-NAALYA
MID-TERM TWO EXAMINATIONS
2023
MATHEMATICS (Set Two)
Time Allowed: 2 Hours 30 Minutes

Index No.

Candidate's Name.. ....

Candidate's Signature..

EMIS No.. **Stream** ....

District ....

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. The paper has 12 pages altogether.

2. All working for both sections A and B must be shown in the spaces provided

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

4. **No calculators** are allowed in the examination room.

5. Unnecessary alterations/changes of work may lead to **loss** of marks.

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

7. Do **not** fill anything in boxes indicated: "For Examiners' Use Only. "

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		

*Answer **all** the questions in this section*
Questions 1 to 20 carry two marks each

1. Multiply: **22 x 4**

2. Expand 7538 using powers of ten.
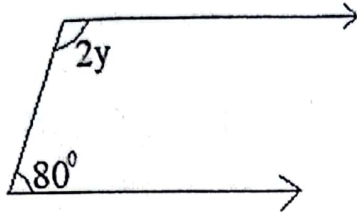
3. Find the next number in the sequence.

   3, 6, 10, 15, 21, _____

4. If set P has 64 subsets . How many elements are in set P?

5. Simplify: $^-3 - {}^-9$

6. Change **0.25** to a fraction in its simplest form.

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

8. A farmer harvested his mangoes at 4:57pm. Express this time in a 24-hour clock system.

9. Simplify: $\frac{2}{3} + \frac{1}{4}$

10. Write **149** in Roman numerals.

11. Four chapatis cost sh.2,400. Find the cost of 7 similar chapatis.

12. Solve $15 = 7 + 2k$

13. Today is Tuesday, what day of the week was it 31 days ago?

14. If represents 55 books, how many books are represented by ?

15. The price of a rubber was increased by 10% by the seller, due to the low demand he decreased the price by 20% , many customers turned up to buy and he again raised the price by 50%. If the new price is sh.594, find the original price of the rubber.

16. Change 104_{six} to base ten .

17. Using a ruler, a pencil and a pair of compasses only, construct an angle of 45^0 in the space below.

18. The place value of 7 in a number is thousands. Find the value of 7.

19. Find the L.C.M of 10 and 12

20. Factorise completely: $16ab^2 - 20a^3b$

SECTION B: 60 MARKS
*Answer **all** questions in this section*
Marks for each question are indicated in brackets

21. a) Write 40,295 in words.   (*02 marks*)

b) Find the sum of the largest and smallest 4-digit numerals formed using **5,7,2** and **8**.
                    (*03 marks*)

22. a) Using a ruler, a pencil and a pair of compasses only, construct triangle ABC where line AB =6cm, angle ABC =60^0 and angle BAC=45^0.   (*04 marks*)

b) Measure line AC.   (*01 mark*)

23. The Venn diagram below shows the number of pupils who support Arsenal (A), Machester United (M) and other clubs. Use it to answer the questions that follow;
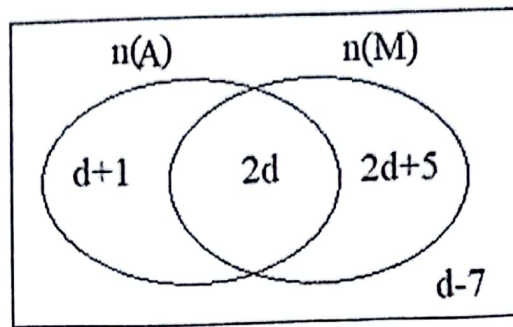
a) If **53** pupils support Manchester United, find the value of **d** .   (*03 marks*)

b) How many pupils support Arsenal ?   (*02 marks*)

24. In a class, $\frac{1}{3}$ of the pupils like chips, $\frac{1}{4}$ of the remainder like beef. The rest of the pupils like chicken. If those who like chicken are 100, find the total number of pupils in the class. **(05marks)**

25. a) Work out: $\dfrac{0.24 \times 0.15}{0.8 \times 0.5}$ **(03 marks)**

b) Simplify: $\dfrac{1}{4} + \dfrac{1}{2} - \dfrac{1}{3}$ **(02 marks)**

26. Below is Kimuli's shopping bill .
    a) Complete the table below. (*04 marks*)

Items	Unit cost	Amount
4 kg of beans	sh.2,500	Sh..........
2 kg of rice	Sh.............	Sh.7,000
.... kg of salt	Sh.2,000 per kg	sh.1,000
Total Expenditure		Sh............

b) Find his change if the he went with a twenty thousand shilling note. (*01 mark*)

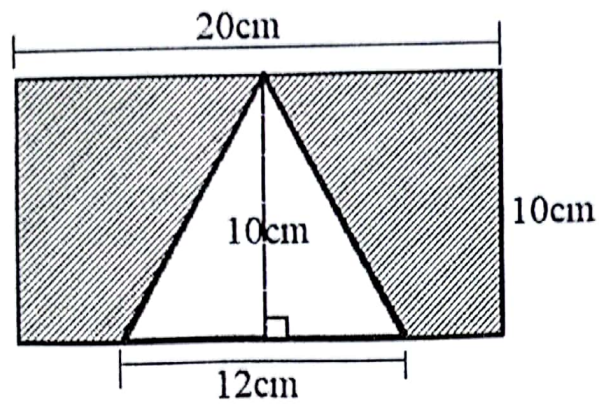27. The sum of three consecutive odd numbers is 57.
    a) Find the numbers (*04 marks*)

    b) Write the second number in words. (*01 mark*)

28. Study the figure below and answer the questions that follow;

a) Find the area of the triangle in the figure above.   (*03 marks*)

b) Find the area of the shaded part.   (*03 marks*)

29. The table below shows marks got by some pupils in a test.

Marks	70	95	100	80
Number of pupils	3	4	1	2

a) How many pupils did the test?   (*02marks*)

b) Calculate the average mark.   (*03 marks*)

30. a) Find the supplement of 69^0.   (*02marks*)

b) Find the value of y in degrees. (*03marks*)

$$y+10^0 \qquad 2y$$

$$2y+20^0$$
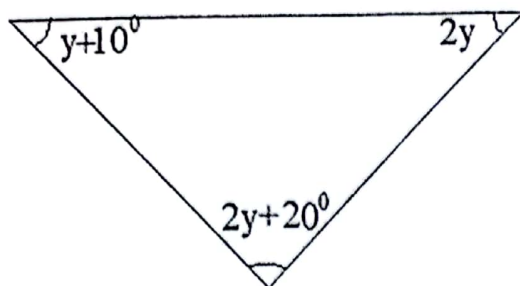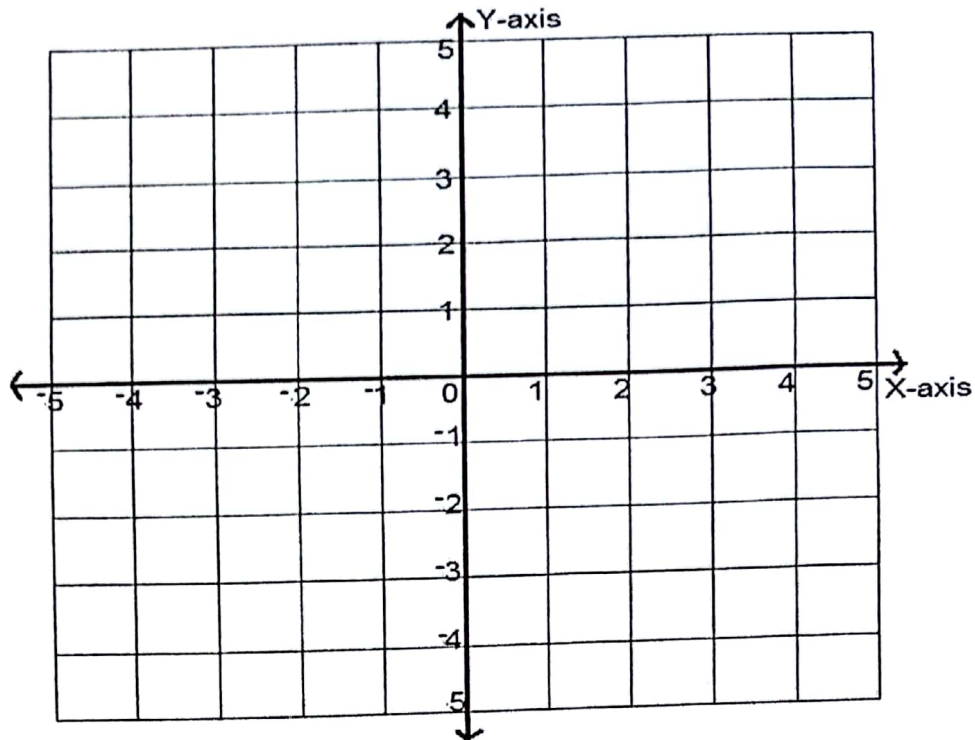
31. Three pupils Abel, Ben and Chris shared **1800** books such that Abel gets twice as much as Chris. Ben got **200** more books than Chris. How many books did each get? (**03 *marks***)

32. a) Plot A(4, 3) , B(4, ̄2) , C(̄3 , ̄2) and D(̄3, 3) on the grid graph below (*04 marks*)

b) Join A to B, B to C, C to D and D to A.   (*01 mark*)

c) Find the area of the figure formed   (*01 mark*)

END