HILLSIDE PRIMARY SCHOOL-NAALYA
BEGINNING OF TERM THREE EXAMINATIONS
2022
MATHEMATICS (SET SIX B)
Time Allowed: 2 Hours 30 Minutes

Index No.

Candidate's Name..

Candidate's Signature..

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

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		

1 **Turn Over**

SECTION A (40 MARKS)

1. Divide $36 \div 9$

2. Find the square root of $1\frac{7}{9}$

3. Solve $2.5 - 2x = 0.5$

4. Find the next two numbers in the sequence 81, 27, 9, 3, __, __

5. A maths lesson lasted for $1\frac{3}{4}$ hours if it began at 11:30am, when did it end?

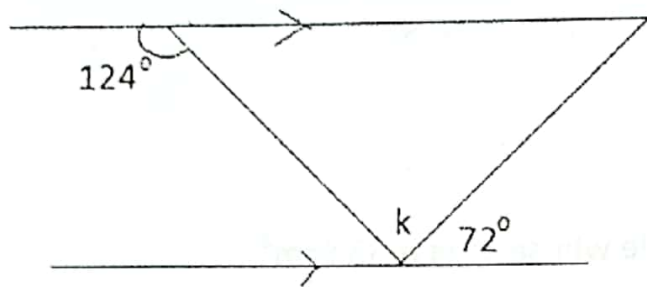6. Joab is 2 years younger than Abdul. If their total age is 36 years. How old is Abdul?

7. Find the radius of a circle whose area is $38.5cm^2$

8. Joram received 18 notes of the same denomination amounting to shs 90,000. In what shilling note was he paid?

9. Calculate the mean of 6m+5, 7, and 9m – 3

10. Expand 34.98 using powers of ten

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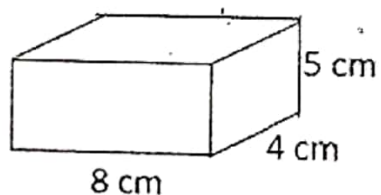
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10. Expand 34.98 using powers of ten

11. Find the size of angle marked k

12. 4 men can slash a compound in 9 days. How many more men are needed to do the same piece of work in 2 days?

13. Find the length of the wire needed to make the figure below

5 cm

4 cm

8 cm

14. Opio turned through an angle of 225^0 clockwise to face south east. Find his original direction

15. Work out 2 – 3 = ___(finite5) using clock arithmetic

16. The length and width of a rectangle are in the ratio of 5:2 respectively. If the perimeter of the rectangle is 28dm. find its actual length

17. Find the percentage of the un shaded part in the figure

18. The direction of town A from town B is S 65°W find the bearing of town B from town A

19. Express $\frac{5}{8}$ as a decimal fraction

20. Work out the complement of $(y + 60°)$

SECTION B

21. A motorcycle wheel of diameter 63cm covered a distance of 3.96km on a certain journey. How many revolutions did the wheel make? (5 marks)

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22. Joan left home and drove a distance of 80km on the bearing of 070^0 to the market. She then left the market and drove on a bearing of 210^0 covering a distance of 130km to the hospital.

    a) Using a scale of 1cm represents 20km, draw an accurate diagram to show the above information   (4marks)

    b) Find the shortest distance between home and the hospital(1mark)

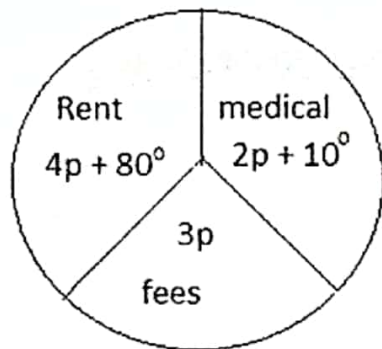23. What angle is $\frac{2}{3}$ of its supplement   (2 marks)

b) The interior angle of a regular polygon is 20% more than the exterior angle. Calculate the number of sides of the polygon   (3marks)

24. Three men oryem, olidio, and opata shared land in the ratio of 8:5:7 respectively. Oryem then sold $\frac{1}{4}$ of his land to opata. If opata has 12 acres more than oryem. Find how much land the three men shared.   (4 marks)

25. The pie chart below shows how a family spends its income. Study it carefully and answer the questions that follow

Rent
$4p + 80^0$

medical
$2p + 10^0$

3p
fees

a) If the family spends shs 110,000 more on rent than fees. Find the total income of the family   (3marks)
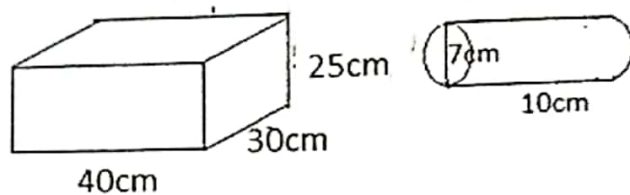
b) How much does the family spend on medical and fees altogether?

(2 marks)

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26. Kimera drove his car from the village to town at a speed of 80km/hr. he drove back from town to village at a speed of 60km/hr. the whole journey took total time of 7 hours.

  a) Calculate the distance from town to the village   (3marks)

  b) Find the time spent from the village to town   (2marks)
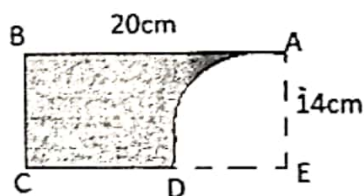
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27. At a factory cylindrical tins of juice were packed vertically in the box measuring 40cm by 30cm by 25cm

25cm

7cm

10cm

30cm

40cm

a) How many tins can be packed in the first layer of the box? (2 marks)

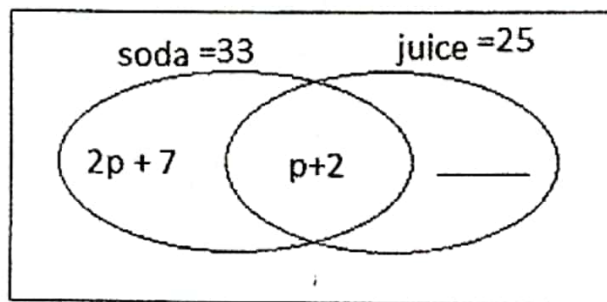b) How many tins can be packed in the box altogether? (3marks)

28. Study the figure below and answer questions that follow, ADE is a quadrant

B   20cm   A

14cm

C   D   E

a) Calculate the area of the shaded part   (3 marks)

b) Work out the total distance round the shaded part ABCD (3 marks)

29. The Venn diagram below shows the number of guests who like different drinks

soda =33   juice =25

2p + 7   p+2   _____

a) Complete the Venn diagram   (1 mark)
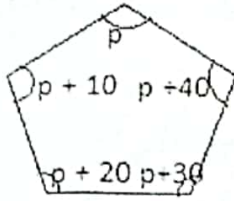
b) Find the value of p   (2 marks)

c) How many pupils attended the party?   (2 marks)

30. The diagram below shows the interior angles of a pentagon

    a) Find the value of p in degrees   (3marks)

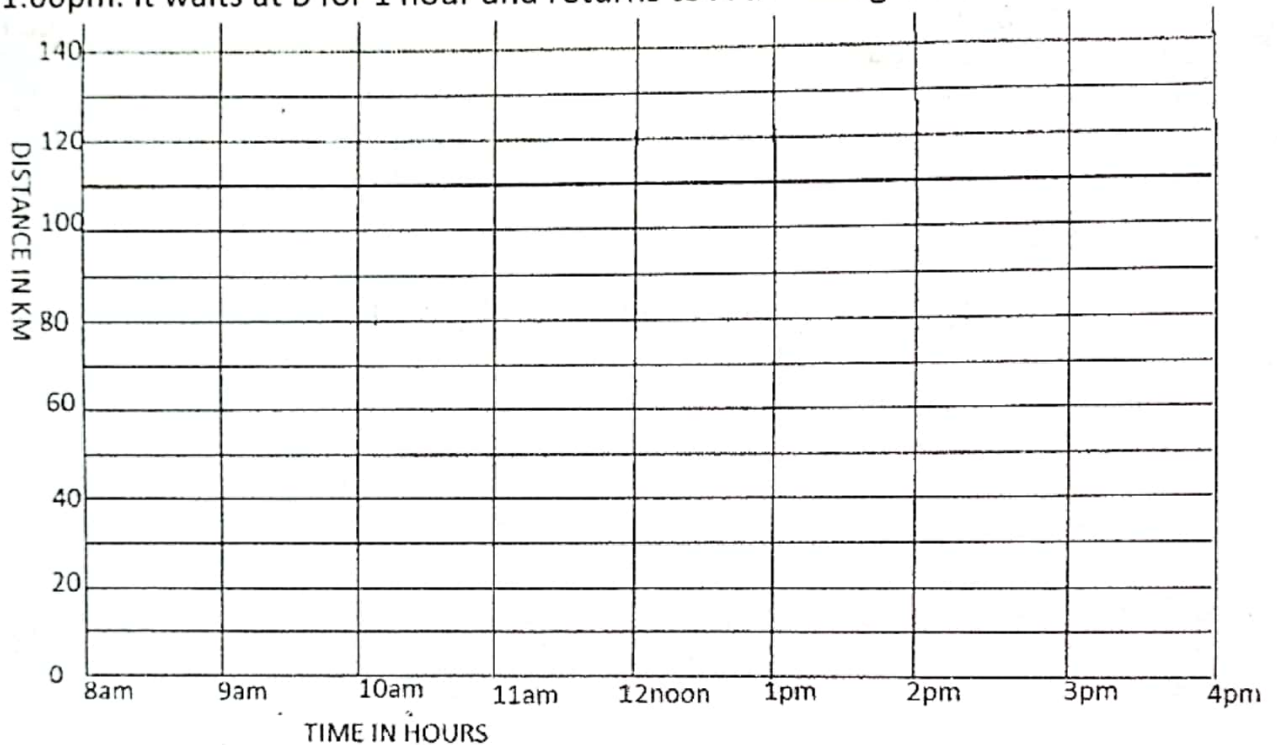   b) Calculate the size of the largest angle   (2 marks)

31. Evaluate $\frac{2}{3} \times (\frac{1}{4} - \frac{1}{12}) + \frac{1}{5}$ (3marks)

a) How many $1\frac{1}{2}$ litres jugs can be obtained in a $22\frac{1}{2}$ container? (2marks)

32. Towns A and B are 120km apart. A bus leaves town A at 9:00am travels for 2hours at a speed of 40km/hr, waits for 1 hour and then reaches town B at 1:00pm. It waits at B for 1 hour and returns to A travelling at 60km/hr

DISTANCE IN KM

TIME IN HOURS

b) Draw the journey of the bus on the graph   (3 marks)

c) Calculate the average speed of the bus while travelling   (2 marks)

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