

NAME.....ADM NO.....

SCHOOL:.....

**LUGARI DISTRICT JOINT END OF YEAR**  
**EXAMINATIONS**  
**FORM I MATHEMATICS**  
**TIME: 2 ½ HOURS**

INSTRUCTIONS

- ❖ Write your name, school class and admission number in the spaces provided
- ❖ This paper contains TWO section Section I and II
- ❖ Answer all the questions in section I and and in SectionII
- ❖ All answers and working must be wriiten on the question paper in the spaces provided below each question
- ❖ Show all steps in your calculations govong your answers at each stage in the spaces below erach question
- ❖ Marks may be given for cooreect working
- ❖ KNEC mathematical tables may be used except where stated otherwise

**For Examiner's Use Only**

Question	1	2	3	4	5	6	7	8	9	10	11	12	13
Marks													

Question	14	15	16	17	18	19	20	21	22	Total	
Marks											

**SECTION 1 ( 50 MARKS)**

**Answer All the question**

1. Evaluate  $(-5 + -3) \times (-2 + 8) \div 4$  ( 2mks)

2. Write the following expresstion as a single fraction ( 3mks)

$$\frac{X + 2y}{4} - \frac{2x - y}{5}$$

3. Four business partners Munyao, Kinura Mulisis and Mango made a profit of shs, 5,600 in one month. They set a side 25% profit for running the business. Yhey then shared the rest in the ratio 2:3:4:6 respectively. How much did Mango get? ( 3mks)

4. The size of an interior anfle of a rectangulat polygon is 1560. Find the number of sides of the polygon ( 3mks)

5. A farmer has three container of capacity 12L , 15L and 21L. Calculate the capacity

a) the smallest container which can be filled by each one of them on an exact number of times ( 2mks)

b) The largest container which can fill each one of the on an exact number of times. ( 2mks)

6. A rectangular slab of glass measure 5cm by 3cm by 14cm and has a mass of 450g. Calculate the density of the glass in  $\text{kg/m}^3$

7. The inside circumference of a circular sports track is 440m long. If the sport track is 10m wide. Find the cost of leveling the sports track at sh. 3.50 per square metre. ( 4mks)

8. The figure below is a trapezium where CD is parallel to BE. Given that CD =4cm BD =5cm and AC = 12cm

Calculate the ares of trapezium ABCDE ( 4mks)

9. Identify the numbers which are divisible by both 2 and 3 from the following list. 390, 441, 5210, 6732 and 7544 by giving reasons. (3mks)

10 Express  $0.\dot{7}$  as a fraction (2mks)

11. On a certain day a student spend  $\frac{1}{4}$  of the time reading and  $\frac{1}{12}$  of the time eating. He spend  $\frac{1}{2}$  of the remaining time sleeping. What fraction of the day did he spend sleeping. (3mks)

12. Wanjala drives from town A to B starting 2330 hours and he drives non stop at 66km/hr to reach town B at 0050 hours. Find how far B is from A (3mks)

13. Nasimiyu and Atieno bought the same type of pens and exercise books from the same shop. Nasimiyu bought 2 pens and 3 exercise books for kshs. 78 and Atieno bought 3 pens and 4 exercise books for shs 108. Calculate the cost of each item. (3mks)

14. The table below shows exchange rates between the shilling and the Japanese Yen. A Japanese tourist Mr. Chung exchanged 1,000,000 Yen into Kenyan shillings. At the end of his holiday he had

a quarter of the Kenyan back to the Japanese Yen. How many Japanese yen did he get.  
( 4mks)

	<b>Buying</b>	<b>Sklling</b>
Japanese Yen	0.63	0.65

15. The figure below shows a sector of a circle of radiun 3.5cm. Find the perimeter of the sector

16. a) Exoress 7056 as a product of its prime facgtors. ( 2mks)

b) Hence evalaut

$$\sqrt{7056}$$

**SECTION B ( 50 MARKS)**

Answer all the question

17. a) Withoout using a protractoe construct a tringle ABC in which AB = 4cm BC = 6.5cm and angle ABC =  $105^0$  Measure AC ( 5mks)

b) Draw the perpendicular bisector of lines AC and BC to meet at O. With O as centre Draw through A,B and C. Measure the radius of the circle. ( 5mks)

18. A coffee field has its measure ments entered in a field book as shown below. Sketch the field Hence find the area in hectares of line fofee field . Take  $Vy = 400m$  as the base line

	Y	
	360	$80 + 0Q$
To R 80	280	
To S 60	200	
	80	200 to P
	V	

19. a) Fill in the table below for the given equations ( 2mks)

$$5x - 2y = 4$$

X	-2	0	2
Y			

$$X + y = 5$$

X	-2	0	2
Y			

b) Using a scale of  $1cm = 1$  on the y axix and  $2cm = 1$  on the x axix. Plot the grpha of  $5x - 2y = 4$  and  $x + y = 5$  on the same axix ( 5mks)

c) State the co-ordinates of their point of intersection

( 1mk)

d) Solve the simultaneous equation

( 2 mks)

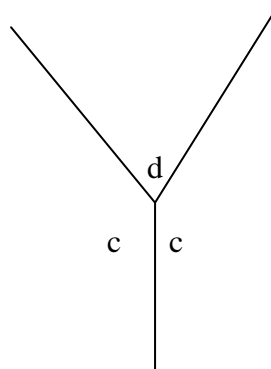
$$\begin{array}{rcl} 5x - 2y & = & 4 \\ X + y & = & -5 \end{array}$$

19. In the figure below

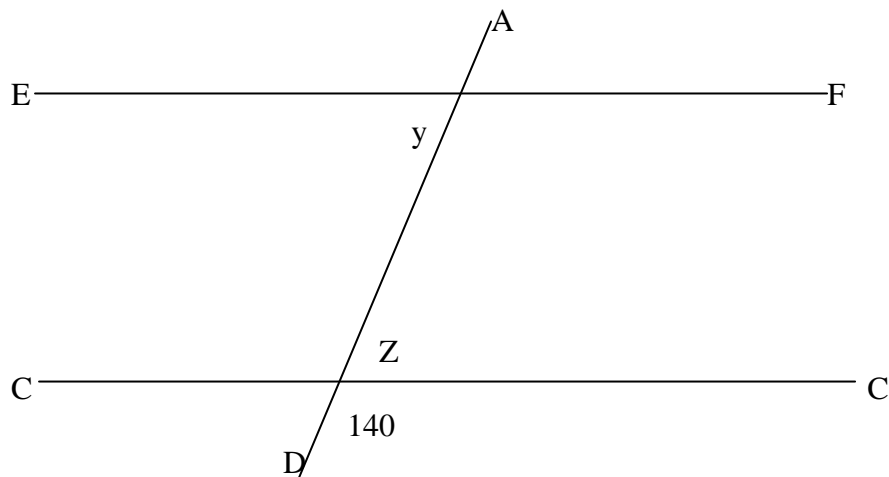
$$C = \frac{3d}{2}$$

Find c and d

( 3mks)



b) In the figure below CF is parallel to CG. Given that anngle DCG =  $140^\circ$ . GInd angle x,y and Z giving reasons ( 3mks)



c) Take a number n, double it add five to the result. It results doubles agained the new number is 22. Find n. ( 4mks)

21. Find the surface area of the figure below. ( 6mks)



b) Find the volume of the figure

( 4mks)