DIVINE EDUCATION CENTRE

PRIMARY LEAVING EXAMINATION-2023

MATHEMATICS (ITEM 4 of 4)

Time allowed: 2hours 30 minutes

Random No.						Personal No.		

Candidate's Name: .....

Candidate's Signature: .....

District ID No.

Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has two sections: **A** and **B**. Section **A** has **20 questions** and **section B** has **12 questions** .This paper has **16 pages** printed altogether.
3. Answer **all** questions. All the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working **must** be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.
5. **No calculators** are allowed in the examination room.
6. Unnecessary **changes** in your work and handwriting that cannot be easily read may lead to **loss of marks.**
7. Do not fill anything in the table indicated **"For Examiners' use only"** and the boxes inside the question paper.

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

Turn Over

SECTION A: (40 MARKS)

*Answer **all** questions in this section*

*Questions **1** to **20** carry two marks each*

1- Solve for k: $k - 4 = 7$

2- Write 40,040 in words.

3- Work out: $27 \div 3$

4- Given that Q has 15 proper subsets. Find n(Q)

5- Find the sum of the next two numbers in the sequence;

42, 40, 37, 32, 25, _____, _____

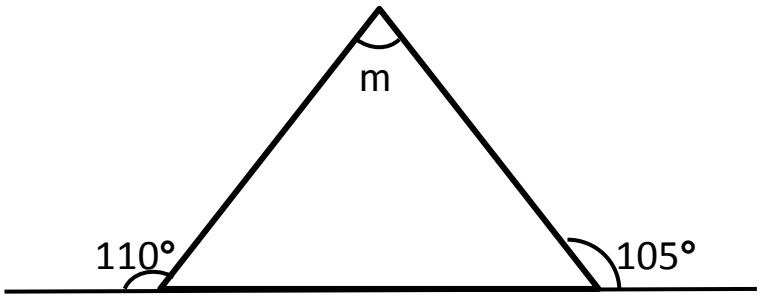
6- Find the multiplicative inverse of $\left(\frac{2}{3}\right)^2$

7- Express 500g as a fraction of $2\frac{1}{2}$ kg.

8- Round off 349.973 to the nearest tenth.

9- Using a pair of compasses, ruler and a very sharp pencil only, construct an angle of 105^0 in the space provided below.

10- In the diagram below, find the value of m in degrees.



11- Given that  represents 6 tomatoes and each heap of 4 tomatoes costs sh. 1000. How much did Alex pay for  tomatoes?

12- Solve for k. $(k + 2)\frac{2}{3} = 6$

13- Ruth woke up at 2:15am after sleeping for 5 hours and 30 minutes. At what time did she start sleeping?

14- Workout: 1 1 1two
x 1 1two

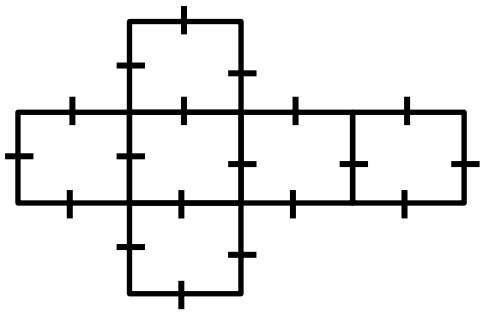
15- Amos deposited sh. 100,000 in a bank which gives an interest rate of $15\frac{1}{2}$ % per month. After some months, his account had an amount of sh.193,000. For how long was the money in the bank?

16- The cost of three cups is sh. 21,000. Find the cost of half a dozen of similar cups.

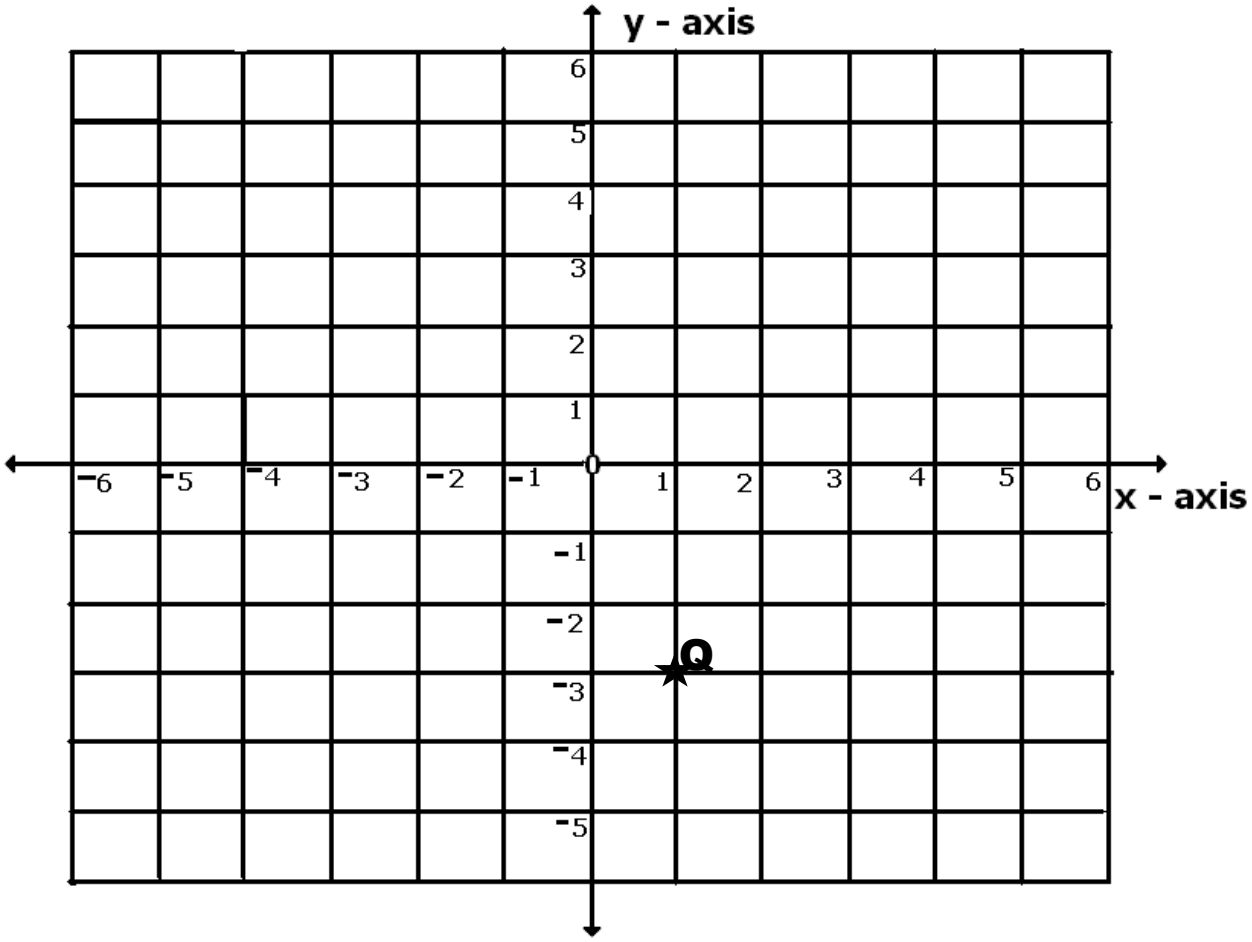
17- When a farmer increased his goats on the farm by $12\frac{1}{2}$ % it became 45 goats. How many goats did the farmer have at first?

18- Find the square root of 0.09

19- The volume of the figure formed from the net below is $27cm^3$. Calculate the length of its one side.



20- Show P (-3, 0) on the grid below.

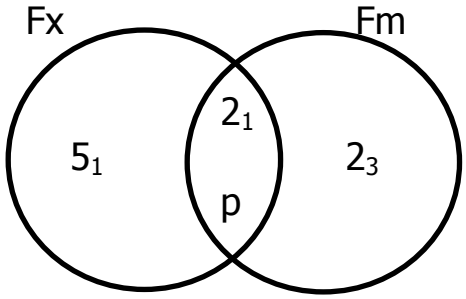


(b) Write the coordinates represented by Q

SECTION B: 60MARKS

*Answer **all** questions in this section.*
Marks for each question are indicated in the brackets.

21- Use the factor diagram below to answer the questions



If the GCF of x and m is 6. Find the value of; ***(2marks@)***

(a) P

(b) x

(c) m

22- (a) Simplify: $\frac{3.9 + 3.6}{0.06 \times 0.5}$ ***(3marks)***

(b)Workout: $\frac{1}{3}$ of $12 + 16 \div 4$ ***(2marks)***

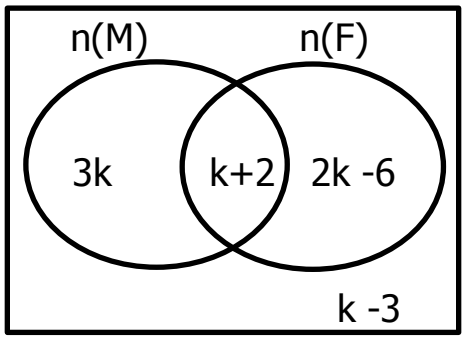
23- At a party, the chief guest served one less sweet than the previous child. He served to 3 children Jane, Joy and Joan respectively. How many sweets did each child get if Joy and Joan got 17 sweets? ***(4marks)***

24- The interior angle of a regular polygon is 108^0.

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

(b) Find the number of right angles in the polygon. ***(2marks)***

25- The venn diagram below shows the number of pupils who like meat (M) and fish (F). Use it to answer the questions that follow.



(a) If 38 pupils like either meat or fish, find the value of k ***(2marks)***

(b) How many pupils are in the class altogether? ***(2marks)***

(c)Find the probability of picking a pupil at random who likes only one type of source ***(1mark)***

26- Using a ruler, a pencil and a pair of compasses only,

(a) Construct a triangle MTN where line TN = 7cm, angle TNM = 60^0 and angle MTN = 45^0 ***(4marks)***

(b) Measure line MT = ...cm ***(1 mark)***

27- The table below shows the rate at which different currencies were bought and sold in Eco bank during the month of October. Use it to answer the questions that follow.

Currency	**Buying in Ugsh.**	**Selling in Ugsh.**
1US DOLLAR ($)	3700	3800
1 EURO (€)	3750	4100
1 Kenya shilling (Ksh)	21	29

(a) Moses had 400 Euros and 500Kenya shillings. If he exchanged them to Uganda shillings, how much in Uganda shillings was he given?

(2marks)

(b) If the cost price of the plot of land was 15,200 Euros. Calculate the cost price of the plot of land in United States dollars. ***(3marks)***

28- The total distance round a semi-circle is 72dm, calculate its area.

(4marks)

29- Peter had a two-race journey. He covered 10km of the journey by walking and the remaining 15km by running. The average speed he used while walking was a half of the speed he used while running. If he took 3 ½ hours to complete the race, calculate the average speed he used while walking.

(6marks)

30- a) Simplify: 5b – 2d – 3b – 3d ***(2marks)***

(b) A father is 5 times as old as his son. The mother is 21 years older than the son. The total age of the mother and the son is the same as the father's age.
Find the age of the father. ***(3marks)***

31- The table below shows the marks obtained by some pupils in a weekly test. Use it to answer the questions that follow.

Marks	80	K	90	60
Number of pupils	2	3	1	4

(a) How many pupils did the test? ***(1mark)***

(b) If the mean mark of the pupils was 70, find the value of k. ***(4marks)***

32- A water tank had two taps. Tap P turned on alone fills the tank in 4 minutes while tap Q turned on alone draw water from the same tank in 2 more minutes than tap P. One day, the tank was $\frac{1}{4}$ full of water and both taps were turned on at the same time and 60litres were filled in 3 minutes. Calculate the amount of water in litres needed to fill the tank completely. ***(5marks)***

****END****