DIVINE EDUCATION CENTRE

PRE-PRIMARY LEAVING EXAMINATION

2022

MATHEMATICS **(ITEM 1of 4)**

Time allowed: 2hours 30 minutes

Random No.						Personal No.		

Candidate's name: .....

Candidate's Signature: .....

District ID:

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 **12 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		

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SECTION A: 40 MARKS

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

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

1. Work out: $2\overline{)\ 2 \qquad 4}$

2. Write 94 in Roman numerals.

3. Given that **K**= { b,c,e,f,h} and **L**= {a,b,d,f,h}. Find $n(K \cap L)^{c}$

4. Express 2570 grammes as kilogrammes.

5. Subtract $p-5$ from $3p$

6. Work out: $2\frac{1}{3} + \frac{3}{4}$

7. Double the next number in the sequence;
   1, 3, 6, 11, 18, ____

8. Using a pair of compasses and a ruler, construct an angle of 75° in the space provided below.

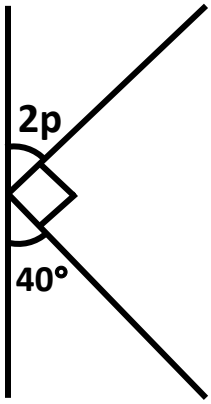
9. The table below shows the marks scored by different pupils in a test. Use it to answer the question that follows.

Marks scored	70	50	90	80
Number of pupils	2	3	4	1

How many pupils scored above the median mark?

10. A milkman sells milk in half litre cups.
How many full cups of milk will he sell if he had a twenty litre jerrycan full of milk?

11. Find the value of P in the diagram below in degrees.



12. Mr. Ssendawula woke up at five in the morning after sleeping for $6\frac{1}{3}$ hours. At what time did he start sleeping?

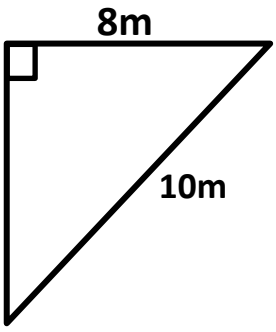
13. Given that $a = {}^{-}2$ and $b = 3$. Evaluate $2b - a^2$

14. Round off 68.96 to one place of decimal.

15. A trader sold a dress at sh.37,000 making a loss of sh.13,000. How much did the trader buy the dress?

16. Find the smallest number of books when divided among 12 or 18 pupils equally, leaves no remainder.

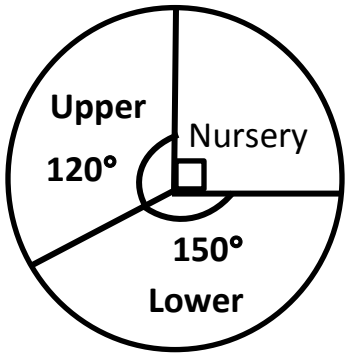
17. Below is a triangular mat. Find the total distance round it.



18. The number of pupils in a certain School decreased by 20%.
If the new number of pupils now is 280.
Calculate the number of pupils in the school before.

19. A motorist covered 90km in $2\frac{1}{2}$hours. How long will he take to cover 24km while using the same speed?

20. The pie chart below shows the number of pupils in Nursery, Lower and Upper primary section in a certain school of 1800 pupils.



How many pupils are in the Nursery section?

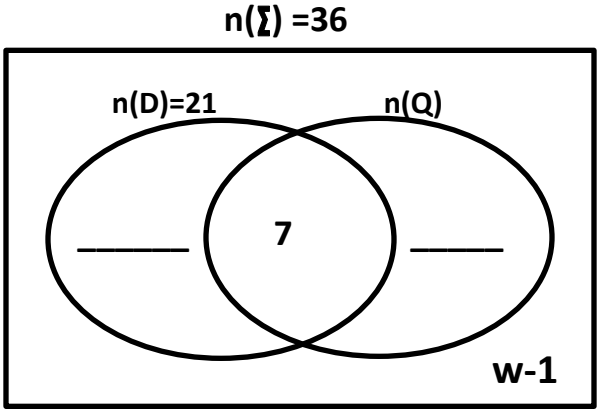
SECTION B: 60 MARKS

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

Marks for each question are indicated in the brackets

21. During a National competition of 36 participants, 21 participated in debating (D), (w+6) participated in quiz only, 7 participated in both activities while (w-1) did not participate in any of the two activities.

(a) Use the above information to complete the venn diagram below. ***(2marks)***



(b) How many pupils participated in debating complement? ***(3marks)***

22. (a) Work out: $423_{five} - 234_{five}$ ***(2marks)***

(b)Given that $43_{y} = 23_{ten}$. Find the unknown base. ***(3marks)***

23. The total of three consecutive counting numbers is 24.
If the largest number is k. Find the sum of the first two numbers.

(4marks)

24. The table below shows the marks scored by a pupil in different Mathematics tests. Use it to answer the questions that follow.

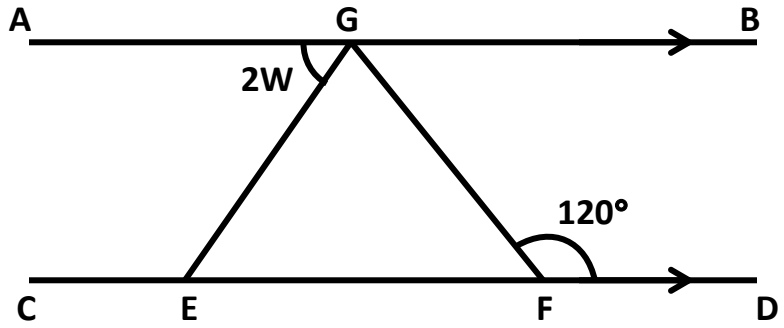
Marks (%)	50	80	60	45
Number of tests	2	4	P	3

(a) Find the value of p if his average mark was 61. ***(3marks)***

(b)How many tests did he do altogether? ***(1mark)***

25. In the figure below, line AB is parallel to line CD.
Angle GFD is 120° and angle EGF is 70° less than angle GFD.

Study it carefully and use it to answer the questions that follow.



(a) Find the value of w in degrees. ***(2marks)***

(b) Calculate the size of angle GEC. ***(2marks)***

26. (a) Solve for q: $7 - q = 4$ ***(2marks)***

(b) Solve the inequality $8 > 2k - 2$ and find the solution set if k is a natural number. ***(3marks)***

27. Muzafalu bought a cylindrical water tank of radius 35cm from neighbourhood Hardware, He rolled the tank on the ground 50 times to his home.

(a) How far is the Hardware from his home? (**Use** $\pi = \frac{22}{7}$)

(4marks)

(b) If the tank had a cover of the same diameter.
Calculate the area of the cover. ***(2marks)***

28. In a class, $\frac{1}{6}$ of the pupils passed in Division **I**, $\frac{2}{3}$ of the remainder passed in Division **II** while the rest passed in Division **III.**
(a) Calculate the fraction for the pupils who passed in Division **III.** ***(3marks)***

(b) How many pupils were in the class if 30 pupils passed in Division III? ***(2marks)***

29. The information below shows the cost of foreign currencies at a certain forex bureau. Use it to answer the questions that follow.
1 US dollar ($) = Ugsh.3600
1 Britsh Pound Sterling(£) = Ugsh.4600
1Kenya shilling (Ksh) = Ugsh.36

(a)The cost of a new pair of shoes is Ksh.18,000.
Find the equivalent cost of the same pair of shoes in United States dollars.
(3marks)

(b) Convert Ugsh.1,104,000 to British Pound Sterling. ***(2marks)***

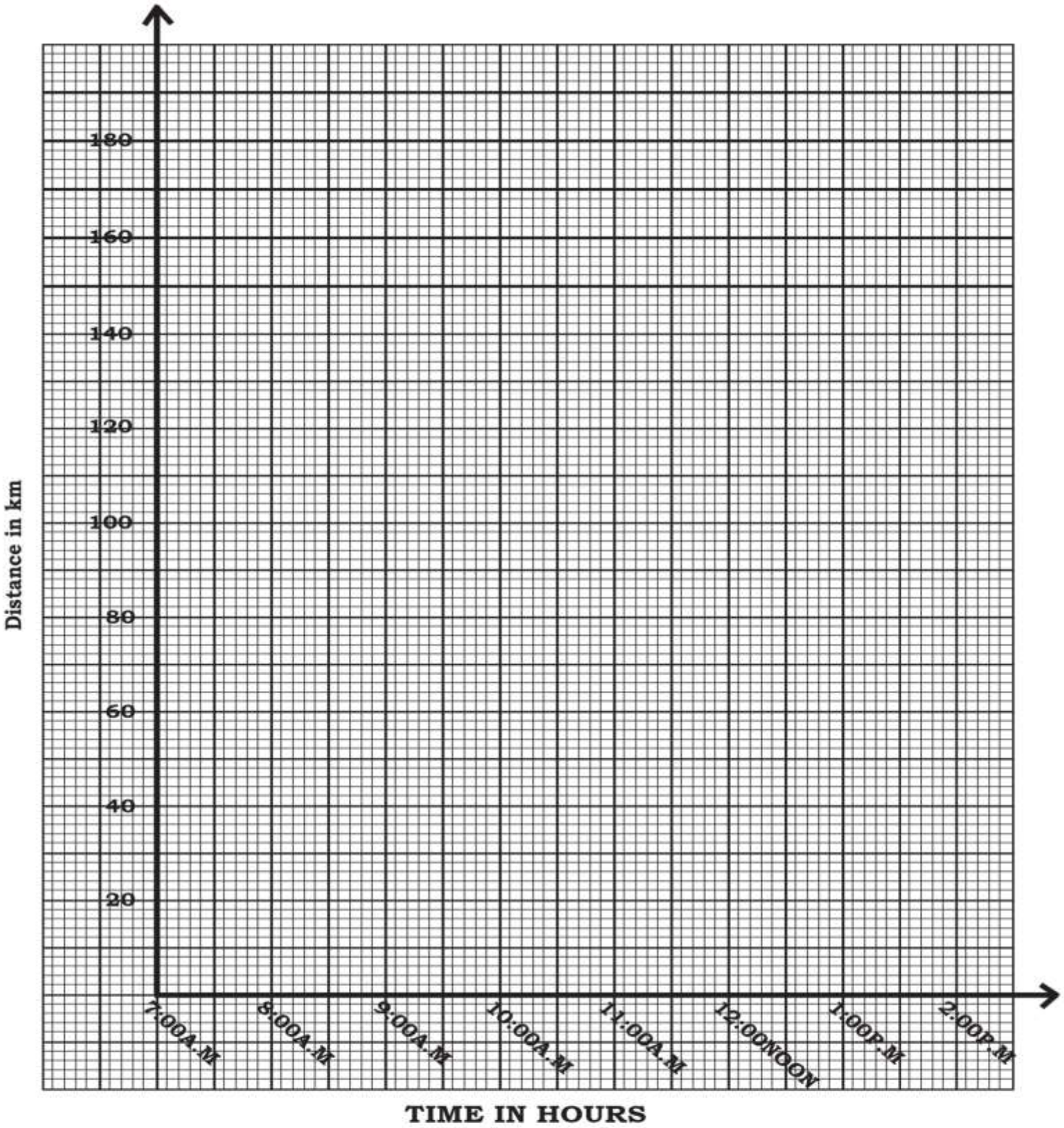
30. (a) Work out: $\frac{0.56 - 0.2}{0.6 \times 0.3}$ ***(3marks)***

(b) Write 0.66... as a common fraction in its lowest term. ***(2marks)***

31. Using a pair of compasses and a ruler,
a) construct a rhombus PQRS where diagonal PR=16cm and diagonal SQ=12cm. ***(4marks)***

b) Find the total distance round the rhombus you have constructed in question 31 a above. ***(2marks)***

32. A cyclist left Mukono for Iganga at 7:00a.m. After cycling for $1\frac{1}{2}$ hours at a speed of 60km/hr, the bicycle got a mechanical problem at Jinja. The mechanic took 90 minutes to repair the bicycle.
The cyclist then continued with his journey of 180km from Mukono to Iganga where he reached at 1:00p.m.
(a) Use the given information to show the cyclist's journey on the graph on page **12** ***(4marks)***



(b) Calculate the speed the cyclist used to reach Iganga after repairing his bicycle. ***(2marks)***

END