DIVINE EDUCATION CENTRE

P.7 BEGINNING OF TERM 1 EXAMINATION-2024

MATHEMATICS

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 **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		

Turn Over

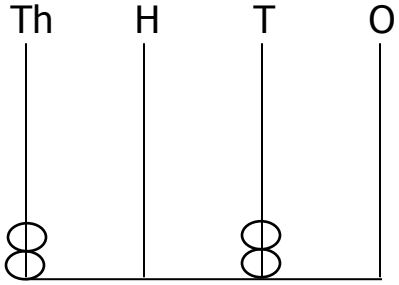
SECTION A (40 MARKS)

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

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

1- Workout: 43 + 62

2- Write the base ten number shown on the abacus below.



3- Given that S = {a, b, c, d} and T ={a, f, g, b} ,find n(S n T)/

4- Find the next number in the sequence;

1, 8, 27, 64, _____

5- Find the range of the following integers;
-4, 3, 0 and 1

6- Workout: $2^3 \times 3^2 \times 5^0$

7- Kintu celebrated his birthday 28days ago from today. If today is Thursday, what day of the week did Kintu celebrate his birthday?

8- Convert 450 millilitres into litres.

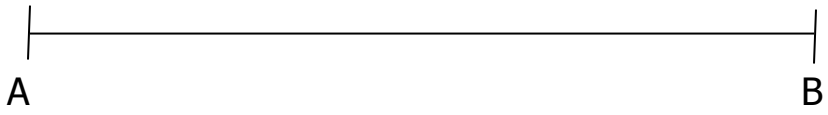
9- Simplify: $5k - 3p + k + 5p$

10- An examination which ended at a quarter past one in the afternoon took $2\frac{1}{4}$ hours. At what time did the examination start?

11- Workout: $3\ 2\ 4_{five}$

$\underline{-\ 1\ 4\ 1_{five}}$

12- Using a pair of compasses, ruler and a pencil only, construct a line through point Q parallel to line AB



• Q

13- Round off 4287 to the nearest hundreds.

14- Solve for y: $\frac{3}{5}y - 2 = 4$

15- A shopkeeper sold an article at sh. 35,000 and made a loss of sh. 5,000. Calculate the percentage loss the shopkeeper made.

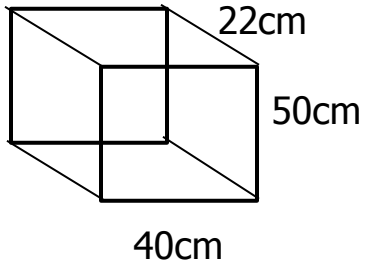
16- At a birthday party, the ratio of guests to the chairs was 2:3 respectively. After all the guests sitting, on one chair each, 6 chairs remained. How many guests were at the party?

17- Express 27_{ten} as a quinary base.

18- Work out: $\frac{3}{4} - \frac{1}{12}$

19- Given that 3m and 36^0 are angles on a straight line, find the value of m.

20- Find the base area of the figure below.



SECTION B (60 MARKS)

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

21- (a) Find the value of 3 in 312_{five} ***(02marks)***

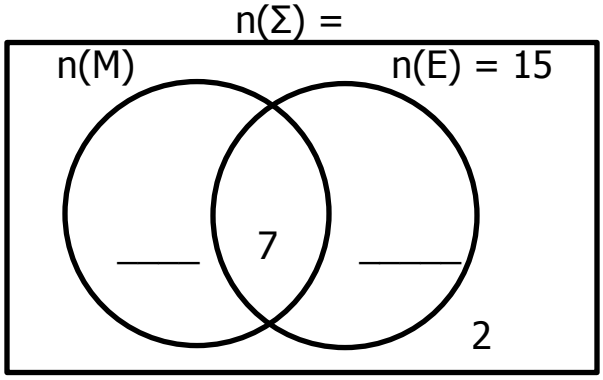
(b) Given that $31_k = 22_{ten}$. Find the value of k ***(03marks)***

22- The sum of 3 consecutive even numbers is 24. If the largest number is w. find the smallest number. ***(04marks)***

23- In a class, h pupils like mathematics (M) only, 15 pupils like English (E), 7 pupils like both mathematics and English, while 2 did not like any of the two subjects.

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

(02makrs)



(b) Given that 20 pupils like mathematics, find the value of h.

(02marks)

(c) How many pupils are in the class? ***(02marks)***

24- Given that a = 2, b = -3 and c = 2a.

(a) Evaluate: ac – b ***(02marks)***

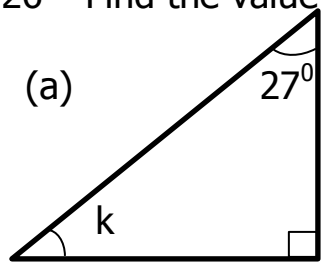
(b) Find the value of :$2c + b^2$ ***(03marks)***

25- (a)Express 10m / second as km/hr. ***(02marks)***

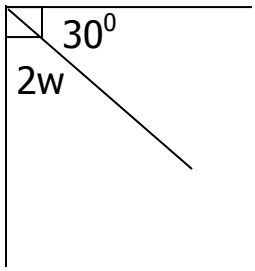
(b) An aeroplane moved a distance of 240km in 72 minutes. Calculate the speed the aeroplane used in kilometer per hour. ***(03marks)***

26- Find the value of k and w in the figure below in degrees. ***(02marks@)***

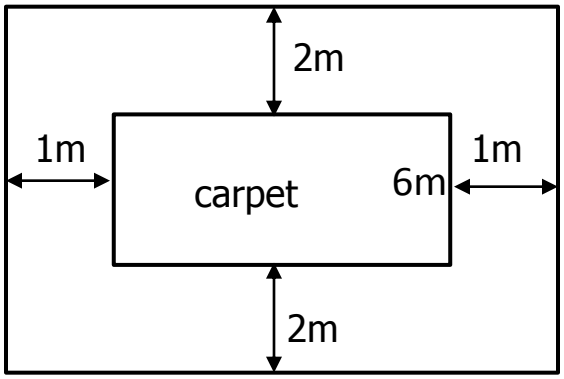
(a)



(b)



27- The figure below shows a rectangular carpet which was placed in a square room leaving some space as shown below.



(a) Find the length of the carpet. ***(02marks)***

(b) Calculate the area of the room which was not covered by the carpet. ***(03marks)***

28- Mr. Okello went with a fifty-thousand-shilling note and bought the following items;

- 1 ½ kg of meat at sh. 16,000@kg.
- 500ml of cooking oil at sh. 9,000 per litre
- 3kg of rice at sh. 4,000 per kg.

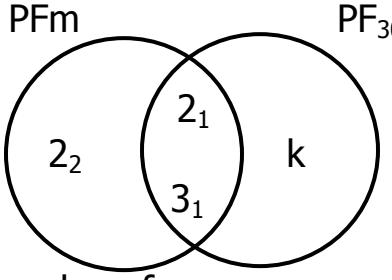
(a) Calculate Mr. Okello's total expenditure. ***(04marks)***

(b) If he was given a discount of sh. 500, how much balance was he given? ***(02marks)***

29- (a) Workout: $\frac{2.4 \times 0.5}{0.6}$ ***(03marks)***

(b) Simplify: 0.5 – 1.3 + 2.5 ***(02marks)***

30- Study the factor diagram below and use it to answer the questions that follow.



(a) Find the value of; ***(02marks@)***

(i) k (ii) m

(b) Calculate the GCF of PFm and PF_{30} ***(01mark)***

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

(a) Construct a triangle PQR such that PQ = 7cm, vertex P is at a right angle and PR = 5cm. ***(04marks)***

(b) Measure angle PRQ ***(01mark)***

32- The table below shows the marks scored by some pupils in a certain test. Use it to answer the questions that follow.

Marks	90	70	80	60
No. of pupils	1	3	2	4

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

(b) Calculate the average score for all the pupils. ***(03marks)***

****END****