

# BUSIA DISTRICT ACADEMIC BOARD

## PRIMARY SEVEN MOCK EXAMINATION

2023

### MATHEMATICS

*Time Allowed: 2 hours 30 minutes*

Admission No.	Personal No.

Student Name: .....

Student Signature : .....

School Name: .....

District Name: .....

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. The paper has 10 printed pages 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 easily be read may lead to loss of marks.
7. Do not fill anything in the table indicated: "For Examiners' Use only" and boxes

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		

## **SECTION A (40 MARKS)**

**Answer all the questions in the section. Each question in this section carries 2 marks**

1. Add :  $423 + 66$

2. Write XLV in Hindu Arabic numerals

3. Work out :  $2\frac{1}{2} \div 5$

4. Given that  $A = \{a, b, c, d\}$  and  $B = \{a, e, d\}$  find  $n(A - B)$

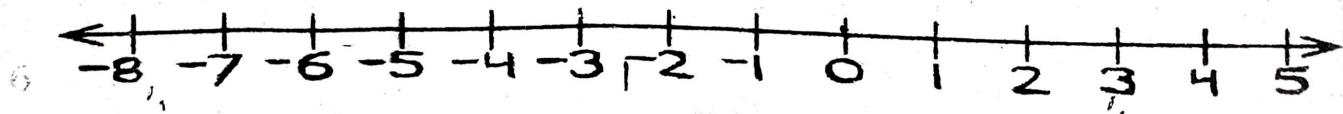
2

5. Find the next number in the sequence

4, 6, 9, 14, 21, \_\_\_\_\_

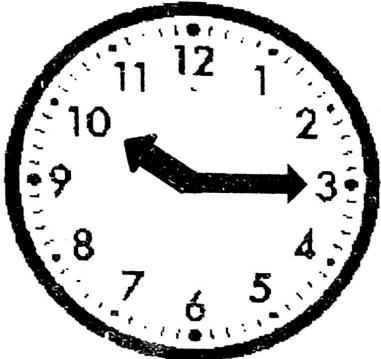
6. Solve for q:  $3q - 2 = 10$

7. Use the number line below to subtract  $-8 - -5$



8. The median of 5 consecutive integers is +3. List the integers

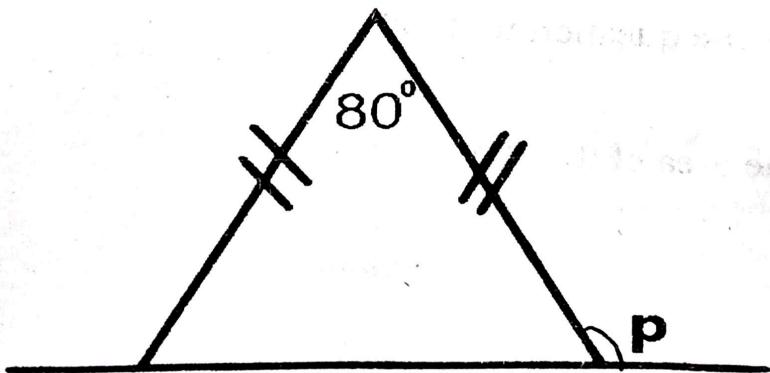
9. The clock face below shows break time in Masaba primary school  
write the time shown on the clock face in 24hours clock system.



10. Given that set  $K = \{\text{all square numbers less than } 10\}$ . find the number of proper subsets in set K

11. Express 7465 in standard form

12. Find the size of angle marked P in the diagram below.



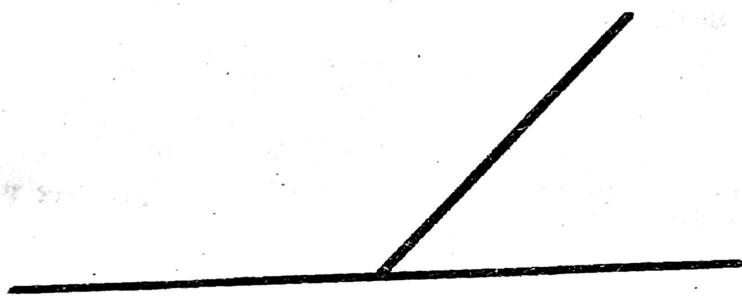
13. How many 250g packets of salt are in 2kg of salt

14. Convert  $1101_{\text{two}}$  to decimal base

15. Find the square root of  $11\frac{1}{9}$

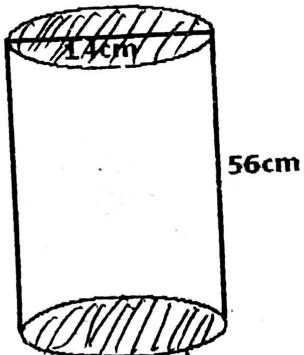
16. Express  $0.2727\dots$  as a fraction in its lowest term

17. Bisect the acute angle in the diagram below



18. If represents 10 balls, how many balls are represented by ?

19. Use the figure below to answer the question that follows



Find the area of the shaded face

20. Work out : 
$$\begin{array}{r} 211 \\ \times 4 \\ \hline \end{array}$$

**SECTION B: (60 MARKS)**

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

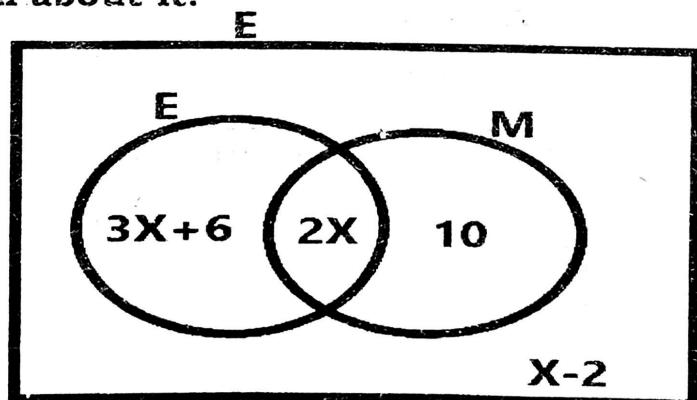
21. Given the numerals :46392

(a) What is the place value of 3 in the numeral above? (1mark)

(b) Expand the above numerals using exponents (1mark)

(c) Find the sum of the place value of 6 and the value of 9 (3 marks)

22. The Venn diagram below shows the number of pupils who like English(E) and Mathematics (M), study it carefully and answer the question about it.



a) If 26 pupils like English, find the value of X.

b) Find the total number of pupils in the class

23. Mr. Ouma distributed his land among his sons Tito, Obote and Lule in the ratio of 2:3:5 respectively .If Obote got 30 acres.
- (a) How many acres did Mr. ouma distribute altogether (3 marks)

(b) Express Lule's share as a percentage of the total (2 marks)

24. Mr. lukendo went shopping and bought the items shown in the table

(a) Complete the table

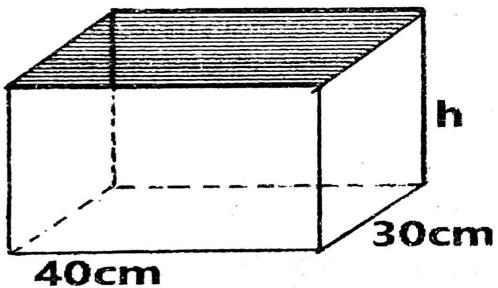
Item	Quantity	Unit cost	Total cost
sugar	2kg	Sh.5000	Sh. ....
Salt	.....	Sh.2000	Sh. ....
Cooking oil	2 liters	Sh. ....	Sh. 14000
Total			Sh. 36000

(b) If he was given a discount of 10% how much money did he pay?  
(2 marks)

(a) Simplify:  $4q - 2p + q + 3p$  (2 marks)

(b) Three pupils shared books as follows: Ouma got 5 more books than Peter and got twice as many books as John. If they shared 30 books altogether, how many books did Peter get? (3 marks)

26. The figure below is a water tank use it to answer the question that follow.



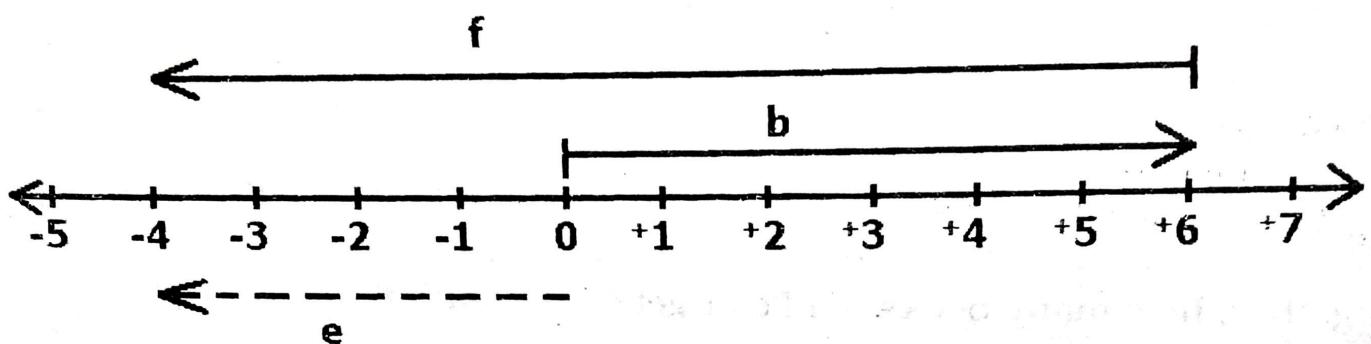
a. How many edges does the figure have? (1 mark)

b. Give the number of verticles. (1 mark)

c. If the tank holds 12 liters of water when full, find its height(h)  
(3 marks)

27.

**Study the number line and use it to answer the questions that follow**



a. Identify the integers represented by

i. **f** =

ii. **b** =

iii. **e** =

(1 mark each)

b. Write the mathematical sentence shown on the above number line  
(2 marks )

28. A motorist left town A at 6:00am and reached town B at 9:00am driving at a speed of 80km/hr.

(a) What is the distance between town A and B?

(2 arks)

(b) If he returned from B to A along the same route at a speed of 120km/hr., calculate his average speed for the whole journey. (3 marks)

29. Using a ruler and a pair of compasses only construct parallelogram KLMN where  $KL=7\text{cm}$ ,  $LM=5\text{cm}$ ,  $\angle NKL=60^\circ$  (4marks)

(b) Measure diagonal NL (1 mark)

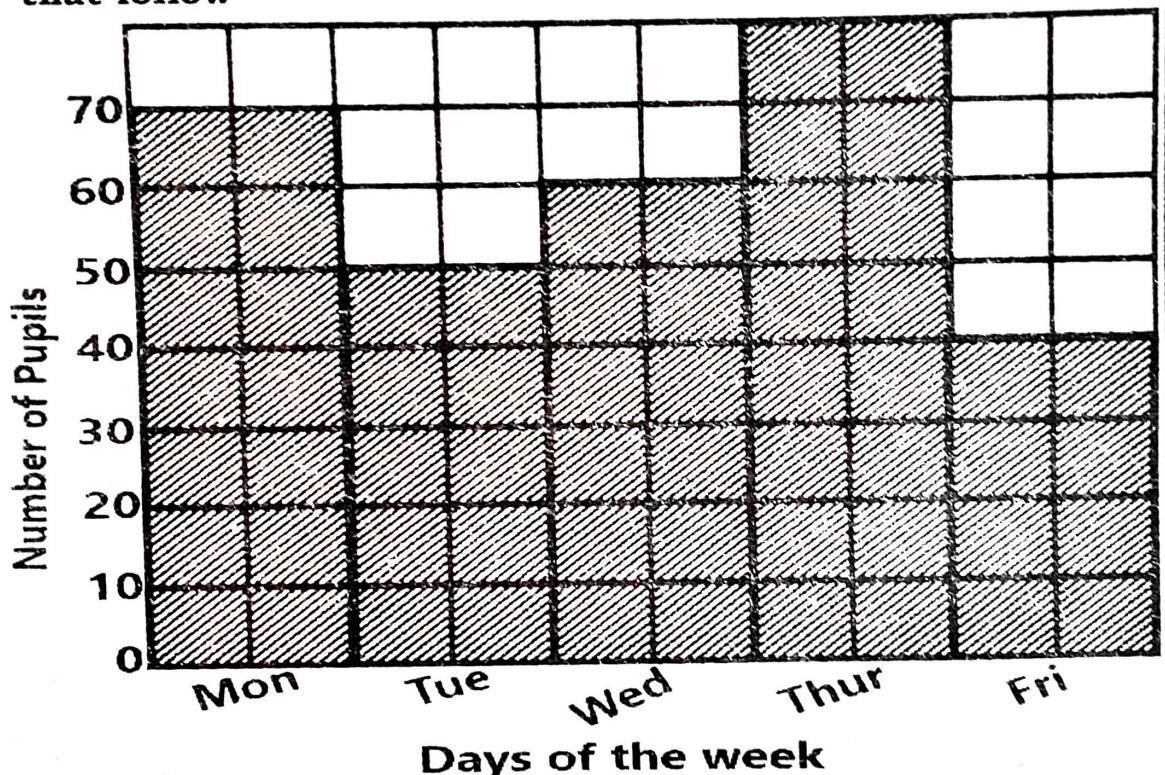
30. Work out: 
$$\begin{array}{r} 321_{\text{five}} \\ + 214_{\text{five}} \\ \hline \end{array}$$

(b) If today is Wednesday, what day of the week was it 45 days ago?  
(2 marks)

(c) Find the unknown base k.  $204_k = 114_{\text{eight}}$  (2 marks)

31. The interior angle of a regular polygon is  $140^{\circ}$ . (3 marks)  
(a) Name the polygon
- (b) Find its interior angle sum. (2 marks)

32. The bar graph below shows the daily attendance of p7 pupils in a certain school. Study the graph and use it to answer the question that follow



- if the class had 100 pupils
- a) Which day had the lowest attendance? (1 mark)
- b) How many pupils were absent on Thursday? (1 mark)
- c) Find the average attendance of the week (3marks)

**END**