

# WAKISO UNITED SCHOOLS ACADEMIC ALLIANCE (WUSAA)



## JOINT PLE MOCK EXAMINATIONS -2022

### P.7 MATHEMATICS

*Time Allowed: 2 hours 30 minutes*

Index No.

Random No.						Personal No.		

Candidate's Name: .....

Candidate's Signature: .....

School Name: ..... Stream: .....

Read the following instructions carefully:

1. This paper has two sections: **A** and **B**.  
Section **A** has **20** questions and section **B** has **12** questions.
2. Answer **all** questions. All answers to both sections **A** and **B** must be written in the spaces provided.
3. **All** answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be allowed.
4. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to **loss of marks**.
5. Do **not** fill anything in the table indicated: **"For Examiners' use only"**.

#### FOR EXAMINER'S 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**

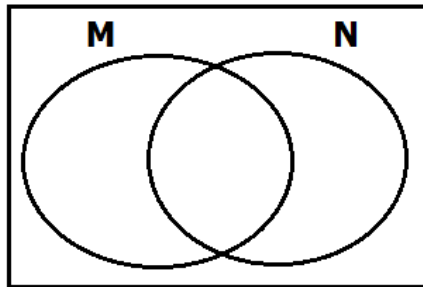
Answer all questions in this section.

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

1. Work out:  $36 \div 9$

2. Write **1456** in words.


3. Shade (**MUN**) complement in the diagram below.



4. Simplify:  $6 + ^{-}8$

5. Simplify:  $\frac{1}{2} - \frac{2}{3} + \frac{2}{4}$

6. Express  $5\frac{1}{2}$  kg to grammes

7. Given that  represents **8** balls. How many balls are represented by the pictures below?



8. Collect like terms and simplify the equation;  $7m - 4n - 3m - 3n$

9. A motorist covered **240km** in **3 hours**. Calculate his average speed.

10. With the help of a pair of compasses, a ruler and a sharp pencil only, construct an angle of  **$135^\circ$** .
11. Increase **1200kgs** by **20%**.
12. A farmer borrowed **sh.240,000** from a village **SACCO** at an interest rate of  **$12\frac{1}{2}$**  per year for **4** months. Find how much interest the farmer paid back after the 4 months.

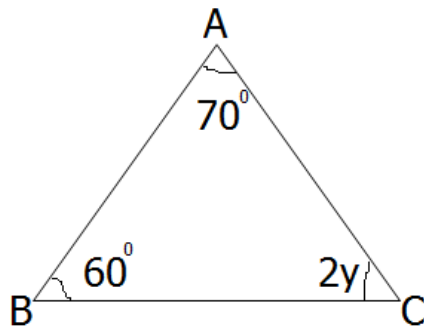
13. Find the sum of the next two numbers

**2, 3, 5, 7, \_\_, \_\_**

14. An examination started at **8:30am** and lasted for **1** hour and **20** minutes at what time did it end?

15. Express **4865** in standard form.

16. Use the triangle below to answer the questions that follow, find the value of **y**.



17. If set **K** has **31** proper subsets, how many elements are in set **K**?

18. Solve for **P**:  $\frac{3}{5}P + 4 = 2 + p$

19. Write **XLV** in words.

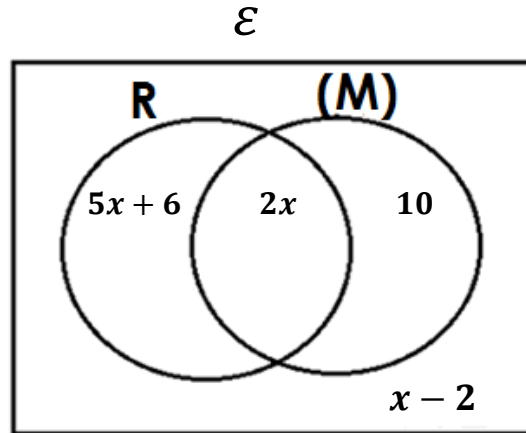
20. The **LCM** of two numbers is **180** and their **GCF** is **6**, find the second number if the first number is **30**.

**Section B: 60 Marks**

**Answer all questions in this section.**

**Marks for each question are indicated in the brackets.**

21. The venn diagram below shows the number of pupils who like matooke **(M)** and those who like rice **(R)**. Study it carefully and answer the questions about it.



- (a) If **20** pupils like rice, find the value of  $x$ . (2 marks)

- (b) Find the probability of picking a pupil who does not like rice. (3 marks)

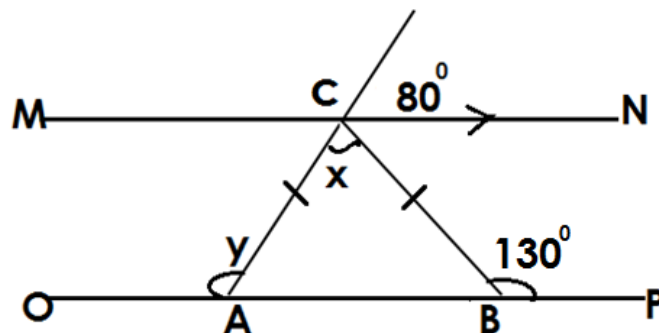
22. The head teacher distributed some text books among three classes where each child got a text book in **P.6**, **P.5** and **P.4** in the ratio of **3:7:5** respectively. If P.5 got **42** text books.

(a) How many children are in the three classes? (4 marks)

(b) How many more children are in P.4 than P.6? (2 marks)

23. (a) Given that the interior angle of a regular polygon is four times its exterior angle, Name the polygon.

(b) In the diagram below, **MN** is parallel, to **OP**. **ABC** is a triangle, angle **TCN** =  $50^\circ$  and angle **CBP** =  $130^\circ$ . Study it carefully and answer the questions that follow.





Find the size of;

(a) angle **y**

(b) angle **x**



24. Given the numeral: **46392**.

(a) Expand the above numeral using exponents. (2 marks)

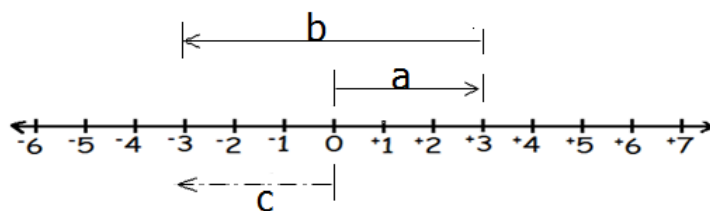
(b) Find the quotient of the value of 6 and the place value of 9 in the given numeral. (2 marks)

25. Mr. Muwonge drove from home at a speed of 60km/hr to school for **2 hours** to visit his daughter Tisha, he took **30 minutes** talking to the daughter and then continued to his place of work which is **50km** from school for  **$1\frac{1}{2}$  hours**.
- (a) How far is the school from his home? (2 marks)

- (b) Find his average speed for the whole journey. (3 marks)

26. At Mrs. Kagoro's supermarket, a basin costs twice the cost of a ruler and a pen costs **sh. 2000** less the cost of a basin. If Mr. Kibirige bought the three items at **sh. 3000**, find the cost of each item. (4 marks)

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



- (a) Identify the integers represented by; (1 mark each)
- (i)  $a =$  \_\_\_\_\_ (ii)  $b =$  \_\_\_\_\_ (iii)  $c =$  \_\_\_\_\_
- (b) Write the Mathematical sentence shown on the above number line. (1 mark)

28. (a) Using a ruler, pencil and a pair of compasses only, construct a parallelogon  $PQRS$  where  $PQ = 6\text{cm}$ ,  $QR = 5\text{cm}$  and  $\text{angle } SPQ = 60^\circ$  (4 marks)

- (b) Drop a perpendicular line from  $S$  to cut  $PQ$  at  $x$ . (2 marks)

29. Mr. Olupot went shopping and bought the items below.

Item	Quantity	Unit cost	Total cost
Bread	3 loaves	Sh. 4400	Shs. _____
Soap	_____ bars	Sh. 3500	Sh. 7000
Wheat flour	2kg	Sh. _____	Sh. 5000
<b>Total</b>			Sh. _____

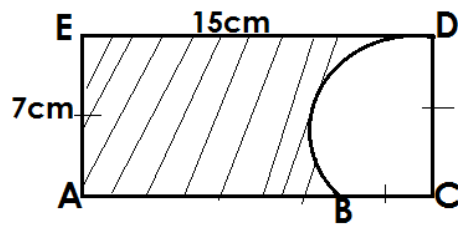
- (a) Complete the table above. (4 marks)

(b) If he was given a **10%** discount, how much was the discount? (2 marks)

30. (a) Express **13**<sub>ten</sub> to binary base. (2 marks)

(b) Change **134**<sub>five</sub> to base three (3 marks)

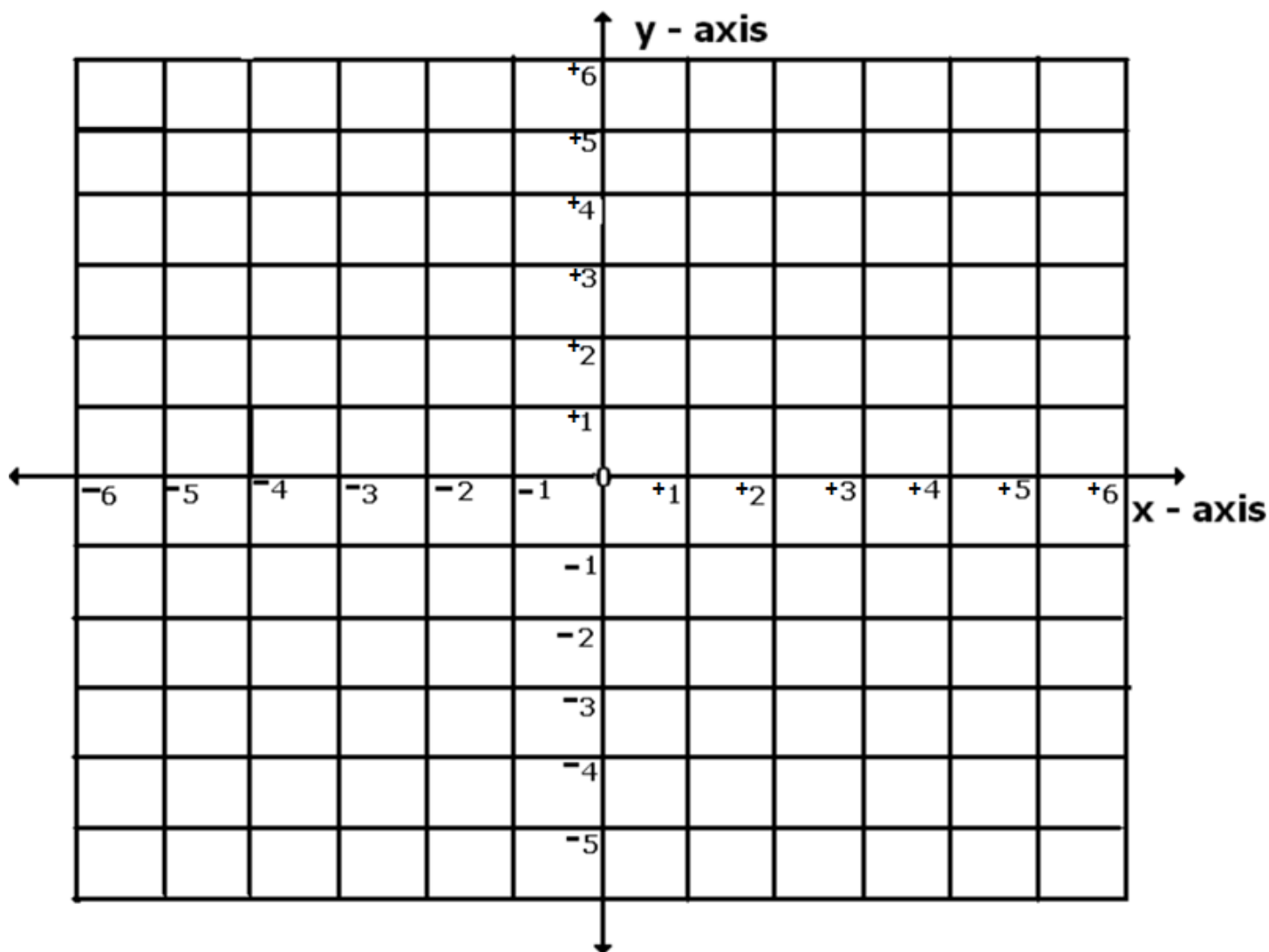
31. Study the figure below and answer the questions about it.



- (a) Find the area of the shaded part **ABDE**. (Take  $\pi = \frac{22}{7}$ ) (2 marks)

- (b) Work out the perimeter of **ABDEA**. (Take  $\pi = \frac{22}{7}$ ) (2 marks)

32. (a) On the graph below, plot the points. **A**(0, +3), **B**(-4, -3) **C**(+4, -3) (3 marks)



(b) Join point **A** to **B** to **C** to **A**. (1 mark)

(c) Find the area of the figure formed. (1 mark)