



THE REPUBLIC OF UGANDA

# KIKUUBE DISTRICT ACADEMIC BOARD

## PRIMARY LEAVING MOCK EXAMINATIONS, 2023

### PRIMARY SEVEN

### MATHEMATICS

Time Allowed: 2 hours 15 minutes

| Random Number |  |  |  |  | Personal Number |  |  |
|---------------|--|--|--|--|-----------------|--|--|
|               |  |  |  |  |                 |  |  |

Candidate's Name: .....

Candidate's Signature: .....

School: .....

District: .....

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.**

Read the following instructions carefully:

1. This paper is made up of two Sections: A and B.
2. Section A, has 20 short-answer questions (40 marks) and Section B has 12 questions (60 marks)
3. 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 fountain pen. Only diagrams should be done in pencil.
5. No calculators are allowed in the examination room.
6. Unnecessary alteration of work may lead to loss of marks.
7. Any handwriting that cannot easily be read may lead to loss of marks.
8. Do not fill anything in the boxes indicated "For examiners' use only"

| FOR EXAMINER'S USE ONLY |       |           |
|-------------------------|-------|-----------|
| Qn. No.                 | Marks | Exrs' No. |
| 1 - 5                   |       |           |
| 6 - 10                  |       |           |
| 11 - 15                 |       |           |
| 16 - 20                 |       |           |
| 21 - 22                 |       |           |
| 23 - 24                 |       |           |
| 25 - 26                 |       |           |
| 27 - 28                 |       |           |
| 29 - 30                 |       |           |
| 31 - 32                 |       |           |
| TOTAL                   |       |           |

Turn Over

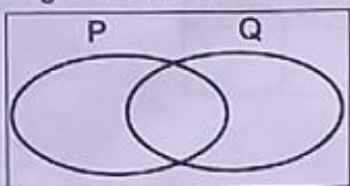
**SECTION A: (40 Marks)**

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

1. Work out:  $45 \div 9$

2. Write 1010 in words.


3. Shade  $(P \cup Q)$  complement in the diagram below.

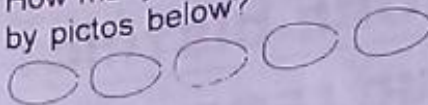


4. Simplify  $9 + -8$

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

6. Express  $7\frac{1}{2}$  kg to grammes.

7. Given that  represents 8 eggs. How many eggs are represented by pictos below?



8. Collect like terms and simplify:  
 $7m - 4n - 3m - 3n$

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  $120^\circ$  in the space below.

11. Increase 1200kg by 30%.

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.

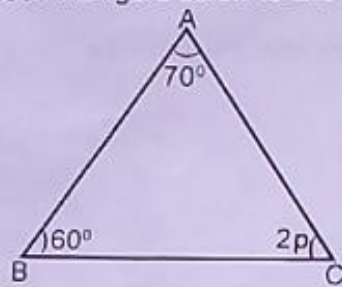
13. Find the sum of the next two numbers.  
2, 3, 5, 7, \_\_\_\_\_, \_\_\_\_\_.

14. An examination started at 9:00a.m and lasted for 2 hours and 30 minutes.  
At what time did it end?



15. Express 5978 in standard form.

16. Use the figure below to answer the questions that follow. Find the value of  $p$ .



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

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

19. Write XLV in words.

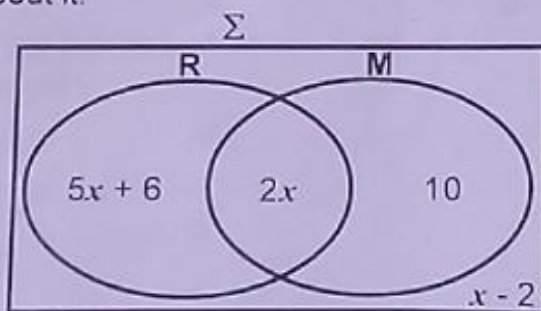
20. The LCM of two numbers is 180 and their GCF is 6, find the second number if the first number is 30.



**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  $x$ .

(2marks)

(b) Find the probability of picking a pupil who does not like rice. (1mark)

(c) How many pupils like only one type of food? (2marks)

22. The Headteacher distributed some text books among three classes where each child got a text book in P6, P5 and P4 in the ratio of 3:7:5 respectively. If P5 got 42 text books

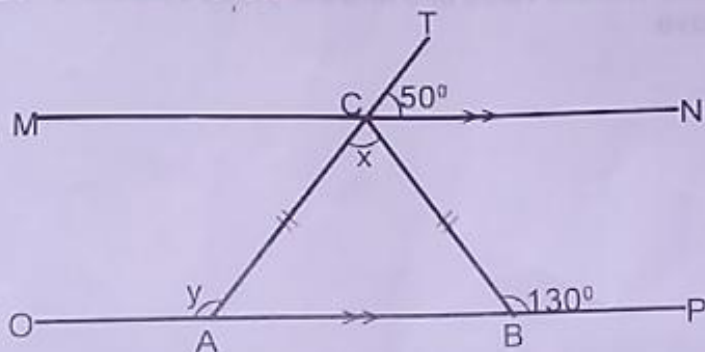
(a) How many children are in the three classes? (4marks)



(b) How many more children are in P4 than P6? (2marks)

23. (a) Given that the interior angle of a regular polygon is four times its exterior angle, name the polygon. (2marks)

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



Find the size of,

- (i) angle y

(2marks)

- (ii) angle x

(2marks)



24. Given the numeral: 46392.

(2marks)

(a) Expand the above numeral using exponents.

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



25. Esau drove from home at a speed of 60km/hr to school for 2 hours to visit his daughter Jackline. He spent 30 minutes talking to his daughter and then continued to his place of work which is 40km from school for  $1\frac{1}{2}$  hours.

(a) How far is his place of work from his home?

(2marks)



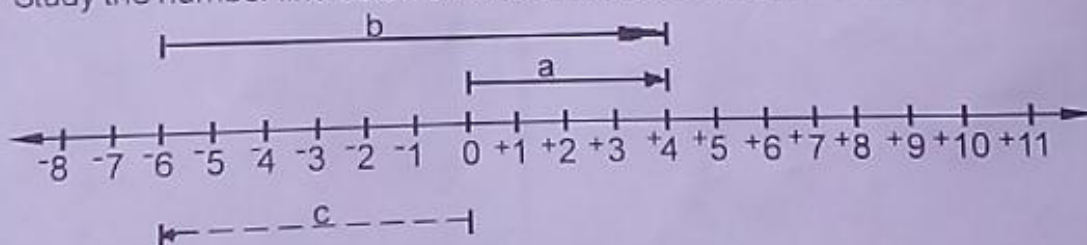
(b) Find his average speed for the whole journey.

(3marks)

26. At Kapere's supermarket, a basin costs twice the cost of a ruler and a pen costs sh 2000 less the cost of a basin. If Kadoma bought the three items at sh 3000, find the cost of each item

(4marks)

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



(a) Identify the integers represented by,

(i) a represents \_\_\_\_\_

(1mark)

(ii) b represents \_\_\_\_\_

(1mark)

(iii) c represents \_\_\_\_\_

(1mark)

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

(1mark)

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

- (b) Drop a perpendicular line from S to cut PQ at X. Measure  $\overline{SX}$ . (2marks)



29. Jacob went shopping and bought the items below.

| Items       | Quantity   | Unit cost | Total cost. |
|-------------|------------|-----------|-------------|
| Bread       | 3 loaves   | sh. 4,400 | sh. _____   |
| Soap        | _____ bars | sh. 3,500 | sh. 7,000   |
| Wheat flour | 2kg        | sh. _____ | sh. 5,000   |
| Grand total | _____      | _____     | sh. _____   |

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

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

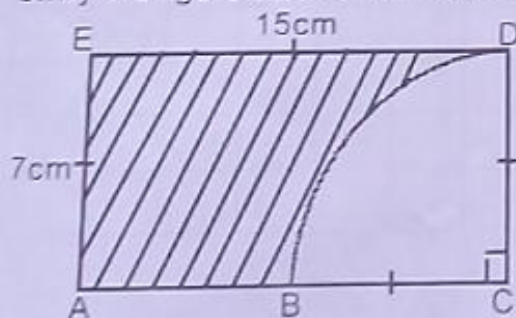
30 (a) Express  $13_{\text{ten}}$  to binary base.

(2marks)

(b) Change  $134_{\text{five}}$  to base three.

(3marks)

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



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

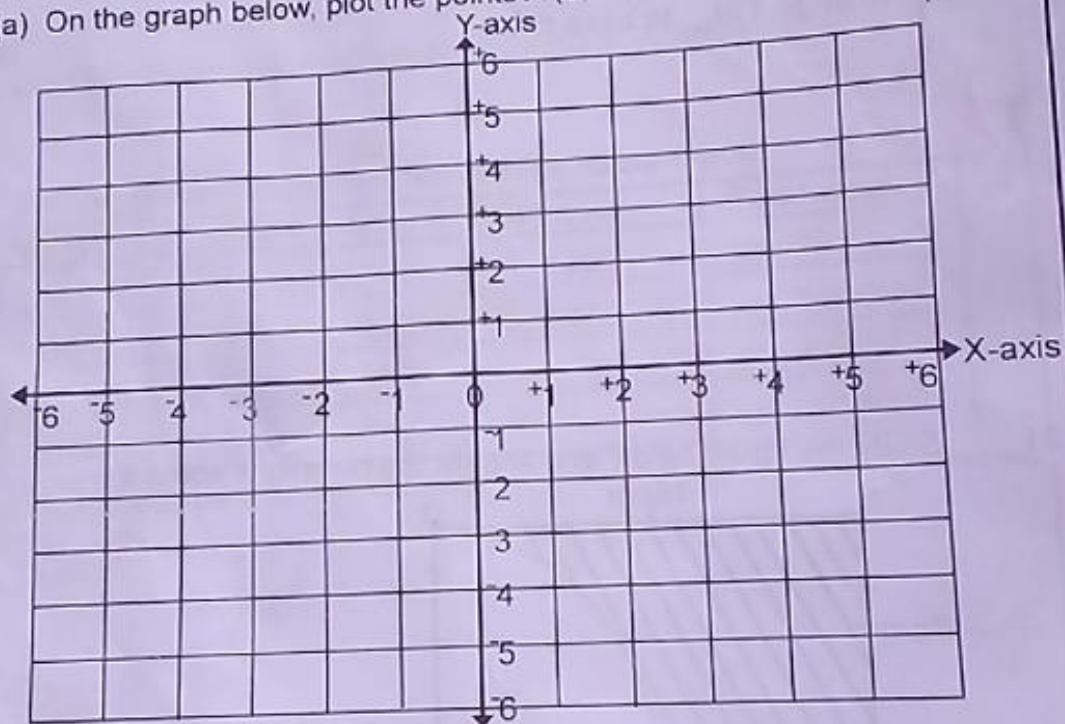
(2marks)



(2marks)

(b) Workout the perimeter of ABDEA. (Take  $\pi = \frac{22}{7}$ )

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



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

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

\*\*\*END\*\*\*

