

### KAMPALA CITY EXAMINATIONS BOARD

# SUPER SET THREE

#### 2025

#### **MATHEMATICS**

Time Allowed: 2 hours 30minutes

	Random No.		Personal No.		
Ca	ndidates' name:				
Ca	ndidates' signature:				
Dis	strict ID No.				
<b>Re</b>	ad the following instructions carefully:  Do not write your school or district name	FOR EXAMINERS' USE ONLY			
	anywhere on this paper.	QN NO.	MARKS	EXR'S	
2.	This paper has <b>two</b> sections: <b>A</b> and <b>B</b> .			NO.	
	Section <b>A</b> has <b>20</b> questions and section <b>B</b> has <b>12</b> questions. The paper has <b>16 printed pages</b> .	1-5			
3.	Answer <b>all</b> the questions. All the working	6-10			
<b>J.</b>	for both sections <b>A</b> and <b>B</b> must be shown in the spaces provided.				
4.	All the working must be done using a <b>blue</b>	31-15			
•	or <b>black</b> ball point pen or ink. Any work done in pencil other than graphs	16-20			
	and diagrams will <b>not</b> be marked.	21-24			
5.	<b>No calculators</b> are allowed in Examination room.	25-26			
c		27-28			
6.	Unnecessary <b>changes</b> in your work and handwriting that cannot be read easily may lead to <b>loss of marks</b> .	29-30			
7.	Do not fill anything in the table indicated:	31-32			
<i>'</i> .	Do not hin anything in the table indicated.		i i		

**TOTAL** 

"FOR EXAMINERS' USE ONLY" and in the

Official line: CEO 0785119093 @ city exams

boxes inside the question paper.

### **SECTION A:40MARKS**

Answer all questions in this section

Questions 1 to 20 carry two marks each

1. Workout:

2. Write in figures: Four million, four hundred sixty-four thousand, four hundred forty four.

3. Workout: (3a - a) - (2a - a).

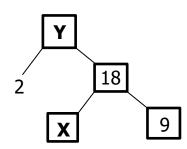
4. If p are positive integers, find the set of values which satisfies the inequality  $4p + 2 \le 10$ .

5. Workout: 494949 ÷ 7.

6. During **FUFA** big league, team **A** scored 6 goals more than team **B**. If they both scored a total of 18 goals, how many goals did team **B** score?

7. Workout the sum of the first 3 cube numbers.

8. Find the value of **X** and **Y** in the factor tree below.



9.	The average weight of 4 candidates is 36kg, when a fifth candidate joins them, the average age becomes 30kg. Find the weight of the fifth candidate.
10.	Given that represents 17 stars. Draw pictures to represent 51 stars.
11.	A wheel makes $2\frac{1}{3}$ revolutions to cover 21m, How many revolutions will it make to cover a distance of 279m?
12.	Dr. Ntambi Abdul Nasser walked 2.5km from his place of work to the bank. Express the distance he covered in metres.

13. Workout: 2h = 3 (finite 5).

14. Joan paid sh.125,000 for an item. If the marked price of the item is sh.100,000, find the percentage discount on the item she bought.

15. In an election, Kapere got one thousand nine hundred nine votes. Express the number of Kaperes' votes in Roman numerals.

16. Oketcho tossed a dice once. What is the probability that a triangular number will appear on top?

17. Find the greatest common factor of 12 and 36.

18. In the figure below, find the value of b.

19. What is  $\frac{1}{3}$  of 12 girls?

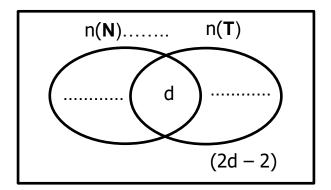
20.	Express 250g as a ratio of 1kg.

#### **SECTION B: 60 MARKS**

## Answer all questions in this section

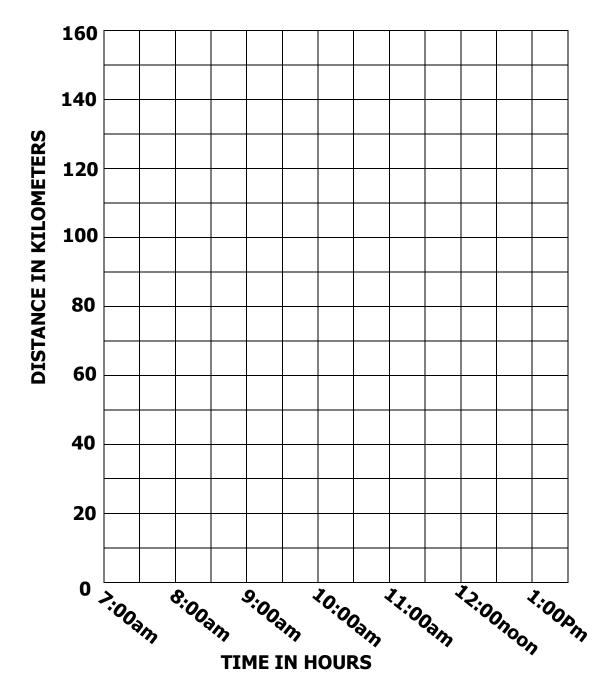
Marks for each question are indicated in the brackets

- 21. In a school, 18 pupils play Netball (N) only, d play both Tennis (T) and Netball, (4d 5) play Tennis but not Netball while (2d 2) play neither of the two games.
  - (a) Use the above information to complete the Venn diagram below. (03 Marks)



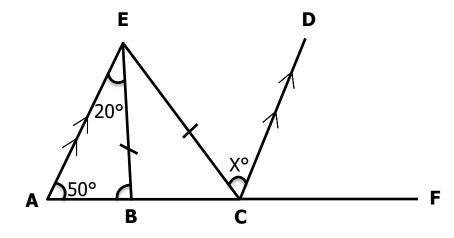
(b) If there are 45 pupils who play one game only, find the value of d. (02 Marks)

- 22. Okot left Soroti at 7:30am traveling at an average speed of 40km/h for 1 hour and 30 minutes. On his way, the car get a mechanical problem and it took him 1 hour to repair the car. He then continued his journey to Moroto at and average speed of 50km/h for  $2\frac{1}{2}$  hours.
  - (a) Use the information given to show Okots' journey on the graph below. (03 Marks)



(b) Calculate Okots' average speed for the whole journey. (03 Marks)

23. In the figure below, **AE** and **CD** are parallel lines. Angle **BAE** =  $50^{\circ}$  and **AEB** =  $20^{\circ}$ . Study it carefully and answer the questions that follow.



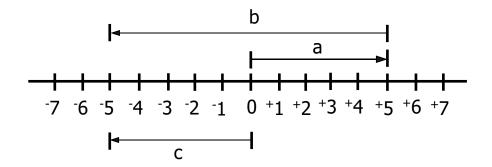
(a) Find the value of X.

(04 Marks)

(b) The interior and exterior angles of a regular polygon are in the ratio 4:2 respectively. How many sides has the polygon?

(02 Marks)

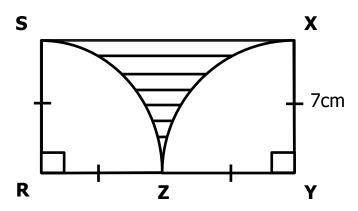
24. Study the number line below and use it to answer the questions that follow.



- (a) Write the integers represented by the letters; (01 Mark each)
  - (i) a

- (ii) b
- (iii) c
- (b) Write the mathematical statement shown on the above number line. (02 Marks)

25. The figure below is a rectangle where length **XY** = 7cm, and **ZYX** forms a quadrant of a circle. Study and use it to find the perimeter of the shaded part. (05 Marks)



26. Given that y = (2x - 3), complete the table below. (05 Marks)

X	2				
			3		-3
Y					
		<sup>-</sup> 5		5	

27.	Town <b>K</b> is 50km North of town <b>M</b> . Town <b>L</b> is 70km from town <b>M</b> on a bearing of $105^{\circ}$ .					
	(a)	Draw an accurate diagram to show the three towns. (Scale 1cm:10km)	( <i>04 Marks</i> )			
	(b)	Find the bearing of town <b>K</b> from town <b>L</b> .	( <i>02 Marks</i> )			

28. Below is a daily time table for Zawadi bus from Kampala to Moyo. Study it carefully and answer the questions that follow.

Town	Arrival	Departure	
Kampala		0600hrs	
Lira	0830hrs	0900hrs	
Gulu	1150hrs	1200noon	
Adjumani	1430hrs	1500hrs	
Moyo	1640hrs		

29.	(a)	At what time does the bus leave Kampala?	( <i>01 Mark</i> )
-----	-----	--	--------------------

(b) Express the time the bus left Gulu in anolog clock system. (02 Marks)

(c) If the distance from Kampala to Moyo is 356km, calculate the average speed for the whole journey. (02 Marks)



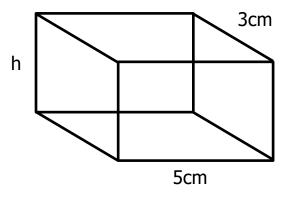
- 30. Ben, Bernard and Bena shared some money in the ratio of 2:4:8 respectively.
  - (a) If Ben and Bernard got sh. 12,000 less than Bena, how much money did they share altogether? (03 Marks)

(b) How much more did Bena get than Ben? (03 Marks)

- 31. Abdallah is 5 years younger than Abdul, Abdu is a third the age of Abdallah. The total age of the three boys is 17 years.
  - (a) Calculate the age of Abdu. (03 Marks)

(c) Workout: 0.3m + 0.6 = 2.4. (03 Marks)

32. The volume of the cubiod below is 90cm<sup>3</sup>. Study it carefully and answer the questions that follow.



(a) Find the value of h. (02 Marks)

(b) Calculate the total surface area of the above figure. (03 Marks)

**THE END**