



THE REPUBLIC OF UGANDA

LYANTONDE DISTRICT ACADEMIC BOARD

**MOCK 2023**

**MATHEMATICS**

***Time allowed: 2 hours 30 minutes***

Index No. : 

School EMIS						Personal No.		

Candidate's Name : .....

Candidate's Signature : .....

School Name : .....

District Name : .....

**Read the following instructions carefully:**

**FOR EXAMINER'S USE  
ONLY**

1. The paper has **two** sections: **A** and **B**
2. Section **A** has 20 questions (40 marks)
3. Section **B** has 12 questions (60 marks)
4. Answer **ALL** questions. All answers to both Sections **A** and **B** must be written in the spaces provided.
5. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.
6. Unnecessary crossing of work may lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.
8. Do **not** fill anything in the boxes indicated;  
For Examiner's use only.

Qn. No	MARK	SIGN
1 – 10		
11 – 20		
21 – 22		
23 – 24		
25– 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

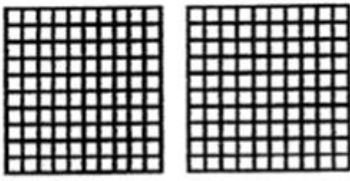

## SECTION A: 40 MARKS

Answer all questions

Questions **1** to **20** carry 2 marks each

1. Work out:  $12 - 9$

2. Write the number represented on the place value chart in words.

Hundreds	Tens	Ones
		

.....

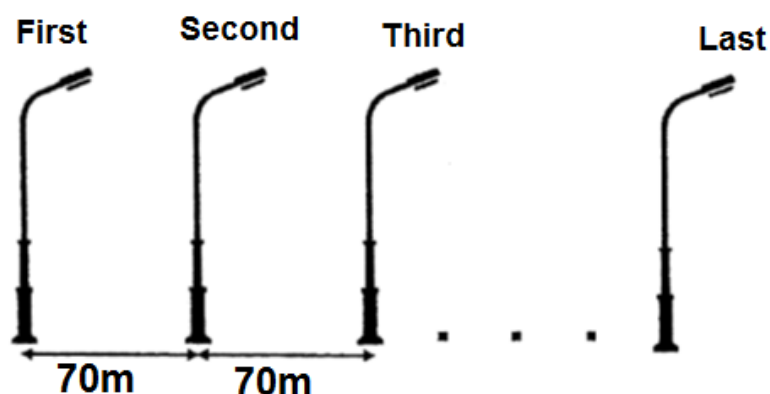
3. Express CDIX in Hindu Arabic numerals.

4. Mr. Ong has 180 apples. He packs all of them into boxes. Each box contains 12 apples. How many boxes are needed to pack all the apples?

5. If  $S = \{2, 3, 4, 5, 6\}$ ,  $T = \{1, 2, 3, 4, 5\}$  and  $Y = \{5, 6, 7, 8, 9\}$ .  
Find the number of subsets in  $(Y - T)$ .

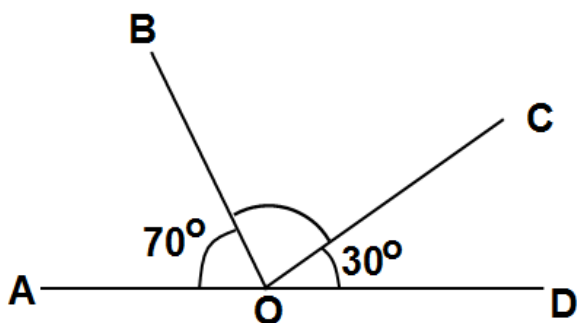
6. Raymond started playing soccer at 2:35p.m. He stopped playing at 4:05p.m. How long did he play?

7. There are 10 lamp posts along Oxford Road. The distance between every two lamp posts is 70m. What is the distance between the first and the last lamp post?



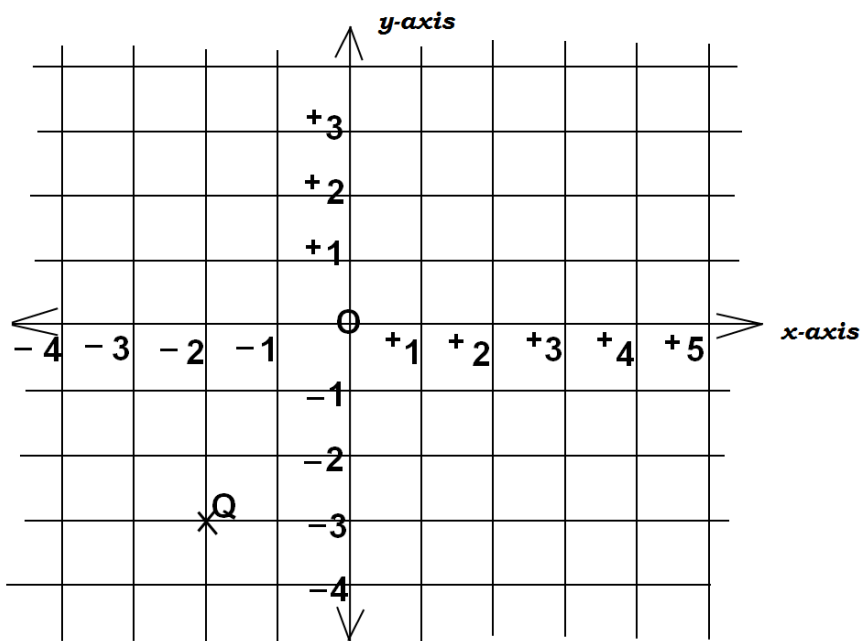
8. There are 10 boys and 30 girls in a class. What percentage of the pupils in class are boys?

9. In the figure, AOD is a straight line.  $\angle AOB = 70^\circ$  and  $\angle COD = 30^\circ$ . What  $\angle BOC$ ?



10. Carrie, Devina and Farinah weigh 42kg, 51kg and 39kg respectively. What is their average weight?

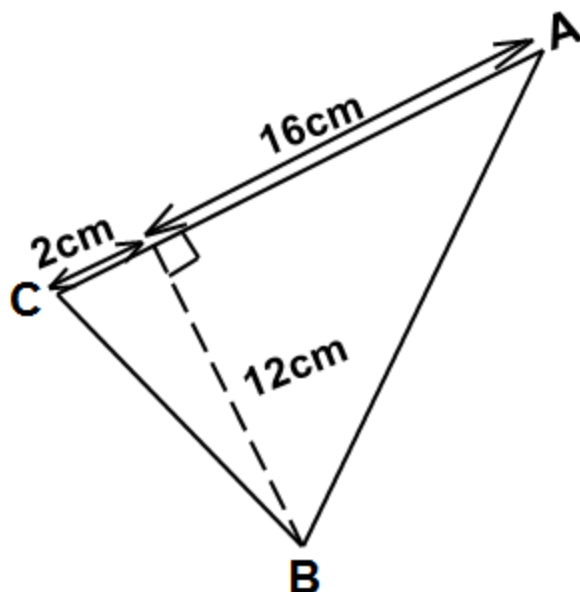
11. Use the coordinate grid below to answer questions (a) and (b).



a) State the co-ordinates of point **Q**. (01 mark)

b) Plot the co-ordinates **S**(4, 0). (01 mark)

12. Calculate the area of triangle ABC.



13. The bearing of town **Q** from town **R** is  $060^{\circ}$ . Find the bearing of town **R** from town **Q**.

14. Work out the value of **m** in  $2^{2m} \times 2^2 = 64$

15. The prime factors of **W** and **Y** are given below.

$$W = \{2_1, 3_1, 5_1\}$$

$$Y = \{3_1, 3_2, 5_1\}$$

Use them find the Lowest Common Multiple of **W** and **Y**.

16. The table below shows the month of April in one year. Mr. Osman plans to attend a course 38 days after 12<sup>th</sup> April. Which day will he be attending the course?

<b>April</b>						
<b>Sun</b>	<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thu</b>	<b>Fri</b>	<b>Sat</b>
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

17. There are 184 087 people living in Toa Payoh village. Express this number to the nearest thousand.
18. A piece of string 88m long fits exactly round Ojok's circular pond. Calculate the diameter of the pond.
19. Using a ruler, a pencil and a protractor, draw an angle of  $235^{\circ}$ .
20. It took Mazrui  $3\frac{1}{2}$  hours to travel from his home to town. If he travelled at a speed of 96km/h, how far was his home from town?

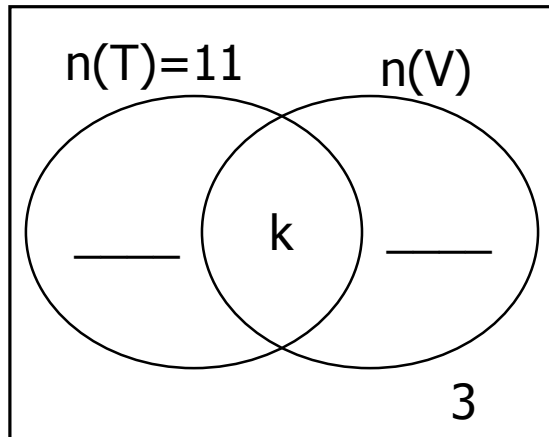
## SECTION B: 60 MARKS

Answer all questions

Marks for Questions **21** to **32** are shown

21. (a) In a class, 11 pupils play Tennis,  **$(k + 5)$**  play volley ball only and  **$k$**  play both games while 3 pupils play neither of the games.

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



(02 marks)

- (b) If 23 pupils play volleyball, find the probability of picking a pupil who plays volley ball. (4 marks)

22. (a) Write the expanded number in Roman numerals. (03 marks)

$$(2 \times 1000) + (5 \times 100) + (7 \times 10) + (3 \times 1)$$

- (b) Write in figures: Nine hundred forty nine thousand fifty nine.

(02 marks)

23. Aggrey, Jacob and Moses contributed 1200 goats to village members towards Easter celebrations in the ratio of 3:5:2 respectively.

a) How many goats did each contribute? (03 marks)

b) Express Aggrey's contribution as a percentage of the total. (02 marks)

24. Judith went to the supermarket with shs. 45,000 and bought the following items.

- 3kg of rice at shs. 2500 per kg
- 2 loaves of bread at shs. 3800 per loaf
- 1 ½ litres of cooking oil at shs. 2000 each litre
- 500 gm of blue band for shs 6000 a kg

What was his total expenditure? (5marks)

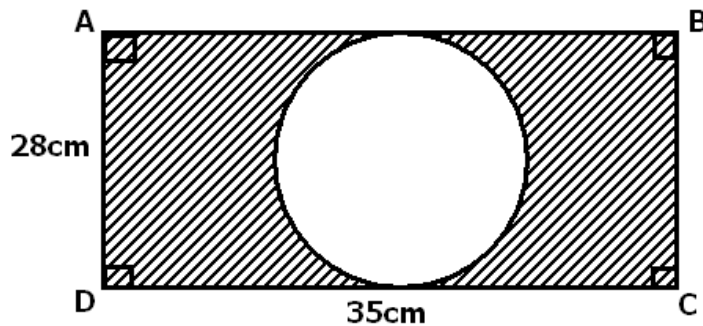
25. a) Workout: 
$$\begin{array}{r} 0.45 \times 0.66 \\ 1.1 \times 1.5 \end{array}$$
 (3 marks)



b)  $1\frac{2}{5} \times 1\frac{1}{2} \div 3\frac{1}{2}$

(2marks)

26. In the rectangle ABCD below, AD = 28cm and DC = 35cm. Find the area of the shaded region. (Take  $\pi = \frac{22}{7}$ ) (5 marks)

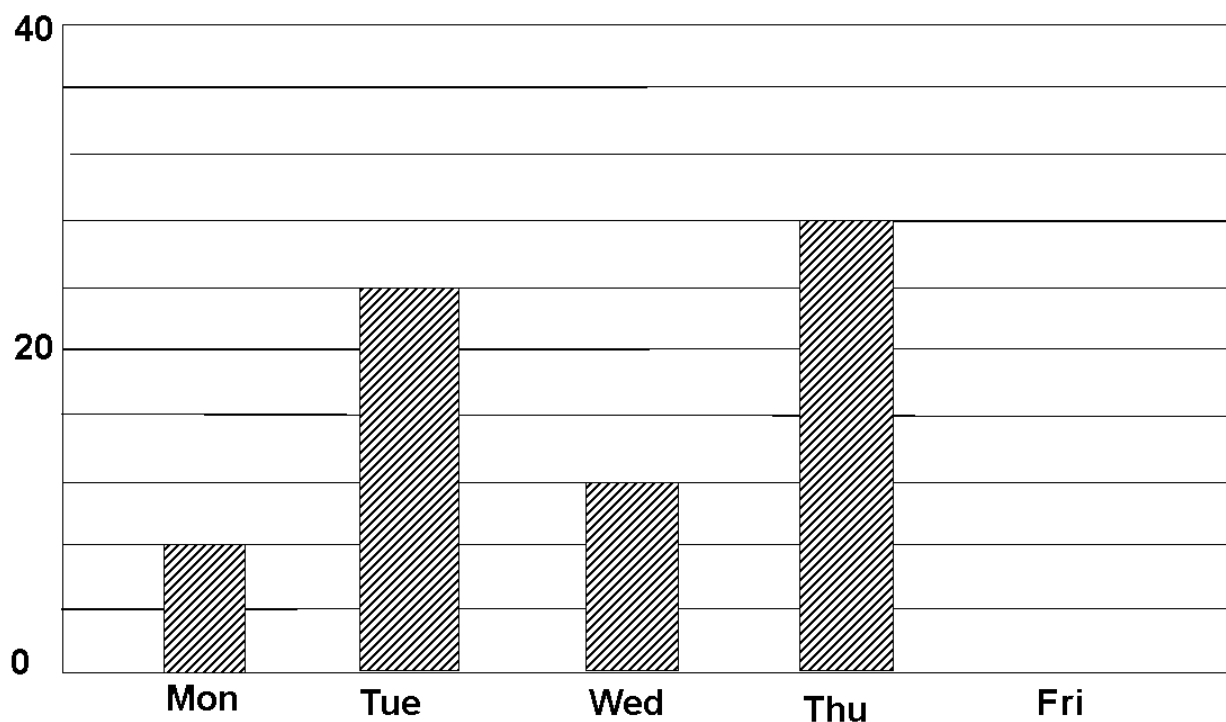


27. (a) Using a ruler, a pencil and a pair of compasses only, construct a parallelogram ABCD such that line AB = 7cm, BC = 5cm and angle ABC =  $120^\circ$ . Drop a perpendicular from **D** to meet **AB** at **M**. (05 marks)

(b) Measure the line DM. ....cm.

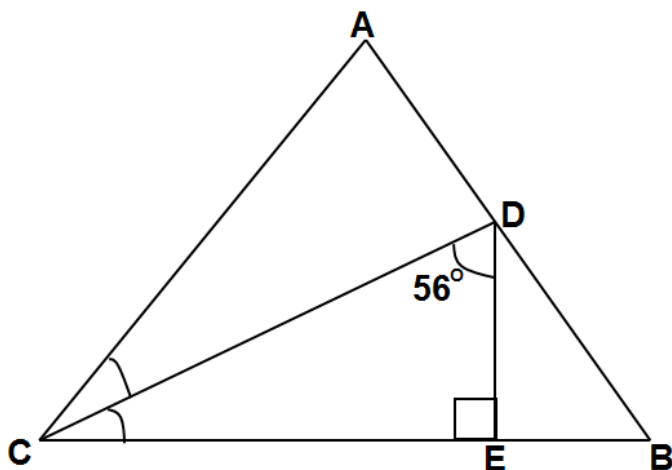
(01 mark)

28. Mr. Siah had some shirts and sold all of them by Friday. The graph below shows the number of shirts sold by him from Monday to Friday. The bar for Friday is not drawn.



- a) If he sold  $\frac{3}{7}$  of the shirts from Monday to Thursday. How many shirts did he sell on Friday? (03 marks)
- b) Each shirt was sold at sh.5,000, how much money was collected from the sale of all the shirts on Friday? (02 marks)

29. In the figure below, not drawn to scale, ABC is an equilateral triangle and  $\angle CDE = 56^\circ$ . Study it carefully and answer the question that follows.



Find the size of angle ACD.

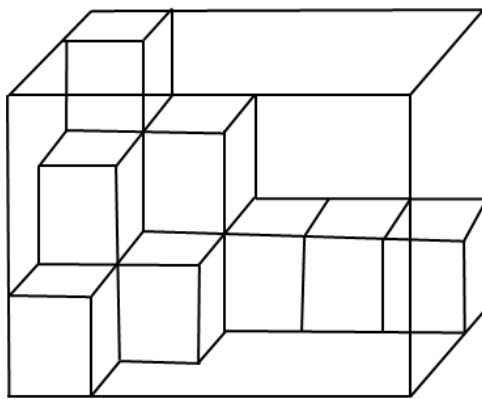
(04 marks)

30. A watch gains 5 seconds every hour. It was set right on Tuesday at 12:39p.m. What time will it show the following Tuesday at 12:39p.m? (04 marks)

31. (a) Solve:  $\frac{1}{7}(42w - 35) = 3w + 16$  (03 marks)

(b) Daniel has a cousin who is 12 years older than him. His cousin is currently 4 times his age. How old will Daniel be in 5 years' time?  
(02 marks)

32. The figure shows a rectangular glass box filled with unit cubes of  $64\text{cm}^3$  each. Use it to answer the questions that follow.



a) Calculate the length of the glass box. (03 marks)

b) How many more similar cubes are needed to fill the glass box?  
(02 marks)

**END**