

THE JEROX EDUCATIONAL SERVICES - KAMPALA

SPECIAL SET EXAMINATION 2024

MATHEMATICS

Time Allowed: 2 Hours 30 Minutes

Random No.						Personal No.		

CANDIDATE'S NAME:

CANDIDATE'S SIGNATURE:

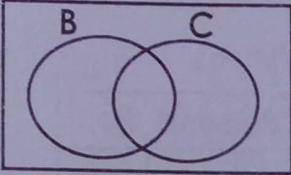
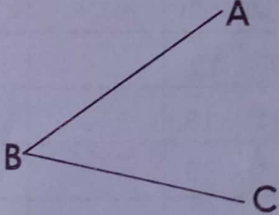
DISTRICT NAME:

Read the Following Instruction Carefully:

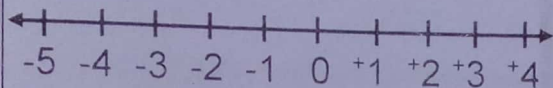
1. This paper has two sections **A** and **B**.
2. Section **A** has **20** question (**40 marks**) and section **B** has **12** questions (**60 marks**).
3. Answer **all** questions. **All** answer to both sections **A** and **B** must be written in the spaces provided.
4. All answer must be written using a **blue** or **black** ball point pen or ink. Any work written in pencil other than graphs and diagrams will not be marked
5. Un necessary changes of work may lead to loss of marks.
6. Any handwriting that cannot easily be read may lead to loss of marks.
7. Do not fill anything in the boxes indicated;
"For examiners" "Use only" and those inside the question paper

FOR EXAMINER'S USE ONLY		
Qn. No	Mark	Exr's No.
1 – 10		
11 – 10		
21 – 30		
31 – 40		
41 – 50		
51		
52		
53		
54		
55		
TOTAL		

SECTION A (40 Marks)

1	Workout: $\begin{array}{r} 6 \quad 3 \\ + 1 \quad 4 \\ \hline \end{array}$	2	Express 147 in Roman numerals
3	In the Venn diagram below, shade the region. $(B \cap C)^c$. 	4	Simplify: $5b + 2b - 3b$
5	Round off 63.79 to the nearest ones.	6	Change 9:47pm to 24 hour clock.
7	Use a protractor to measure the size of angle ABC below.  Angle ABC = _____	8	Change 0.42 tones to kilograms.
9	Find the smallest number that can be divided by 9 or 12 and leaves 5 as the remainder.	10	Calculate the simple interest which will yield on sh. 720,000 at interest rate of 10% per annum for 8 months.

11 Workout $-6 + +2$ on the number line below.



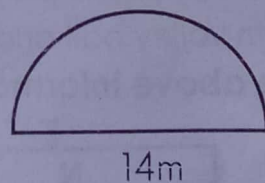
12 Workout: $1101_{\text{two}} + 110_{\text{two}}$

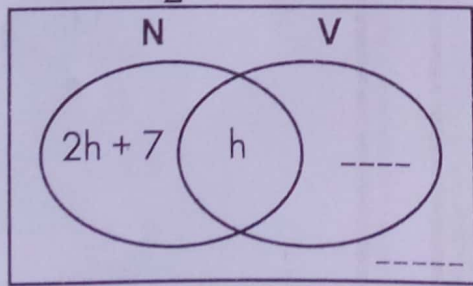
13 Find the median of the number.
12 , 10 , 4 , 1 , 6 and 7

14 The exterior angle of a regular polygon is 40° . Find how many sides has the polygon.

15 Express **0.0047** to a scientific notation

16 Workout the perimeter of a semi - circle. (Use $\pi = \frac{22}{7}$)



17	Bottle of 500 millilitres (ML) were used to fill 25 litre bucket with juice. Find the number of full 500ml bottle that were used.	18	Workout: $2 \div 5 = \underline{\hspace{2cm}}$ (finite 7)
19	Solve the inequality $4 - 3y < 16$	20	Write in figures: Eight thousand forty – nine
SECTION B (60 Marks)			
21	<p>In a class , 20 pupils play volley ball (V) , $(2h + 7)$ play netball (N) only , h play both volley ball and netball 5 pupils play neither of the two games.</p> <p>a) Use the above information to complete the venn diagram.</p> <div style="text-align: center;">Σ </div>		
(02marks)			



b)	If 28 pupils play netball altogether, find the value of h . <div style="text-align: right;">(02marks)</div>	
22	Mariam deposited 100 – ten thousand shillings notes numbered consecutively up to AB894300 .	
a)	Find the registration number of the first note. <div style="text-align: right;">(02marks)</div>	b) Workout the amount she deposited. <div style="text-align: right;">(02marks)</div>
23	With help of a ruler , a pencil and a pair of compasses only , construct a triangle CAP such that angle CAP is 45° , angle CPA is 60° and AP is 8cm . <div style="text-align: right;">(04marks)</div>	



b)	Bisect angle CAP and angle CPA . Let the bisector meet at point O .	c)	Measure angle AOP .
	(01mark)		(01mark)
24 a)	Find the value of y if 42_{eight} = 37_y	b)	Workout: 43_{five} × 12_{five}
	(02marks)		(03marks)
25	Express $\frac{4}{11}$ to a recurring decimal.	b)	Simplify: $\frac{4}{5} \times \frac{3}{7} \div \frac{9}{14} + 2\frac{7}{15}$
	(02marks)		(03marks)

- 26 A book costs **sh. 200** more than a pen and a geometry set costs twice as a book. Find the cost of a geometry set if the total cost of the three items is **sh. 8,400**.

(04marks)

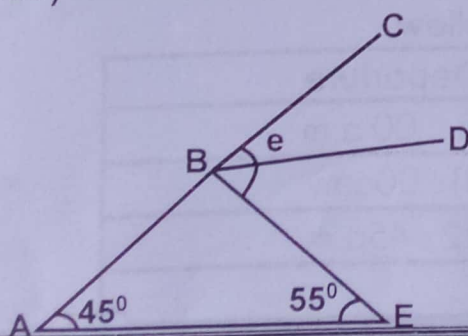
- 27 If today is Wednesday **14th**, June. Find the day of the week it will be on a) **20th**, August the same year.

(03marks)

- b) In a mathematics tests of **20** questions, the teacher awarded five marks for every correct answer and deducted **two** marks for every wrong answer. Asiimwe scored **65** marks. Find the number of question she failed.

(03marks)

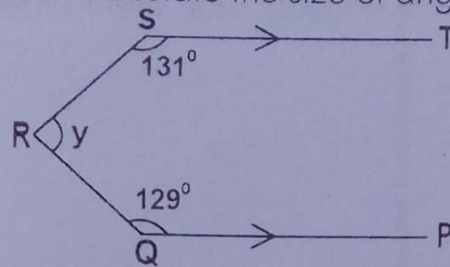
- 28 In the figure **ABE** is a triangle, angle **BAE** is 45° and angle **AEB** is 55° . Study it and use it to answer questions which follow.



- a) If angle **EBD** is thrice the size of angle **CBD** find the value of **e**.

(02marks)

- b) In the figure below, **PQ** is parallel to **ST**, angle **RST** = 131° and angle **RQP** = 129° . Calculate the size of angle **y**.



(02marks)

- 29 A wire was curved to make a rectangle **26cm** long and **18cm** wide was later curved again to form a circle. Calculate the diameter of the circle.

(04marks)

- 30 The table below shows the journeys travelled by a motorcyclist from town **A** through towns **B** and **C** to town **D**. Study it and answer questions that follow.

Towns	Arrival time	Departure
A		8 : 00 a.m
B	10 : 45 a.m	11 : 00a.m
C	12 : 30p.m	12 : 45p.m
D	2 : 00p.m	

7



a) For how long did the motor cyclist stay at town **B**.

(02marks)

b) Calculate the total time the motorcyclist spent travelling for the whole journey.

(02marks)

c) If the distance from town **A** to town **D** is **360km**, calculate the average speed for the whole journey.

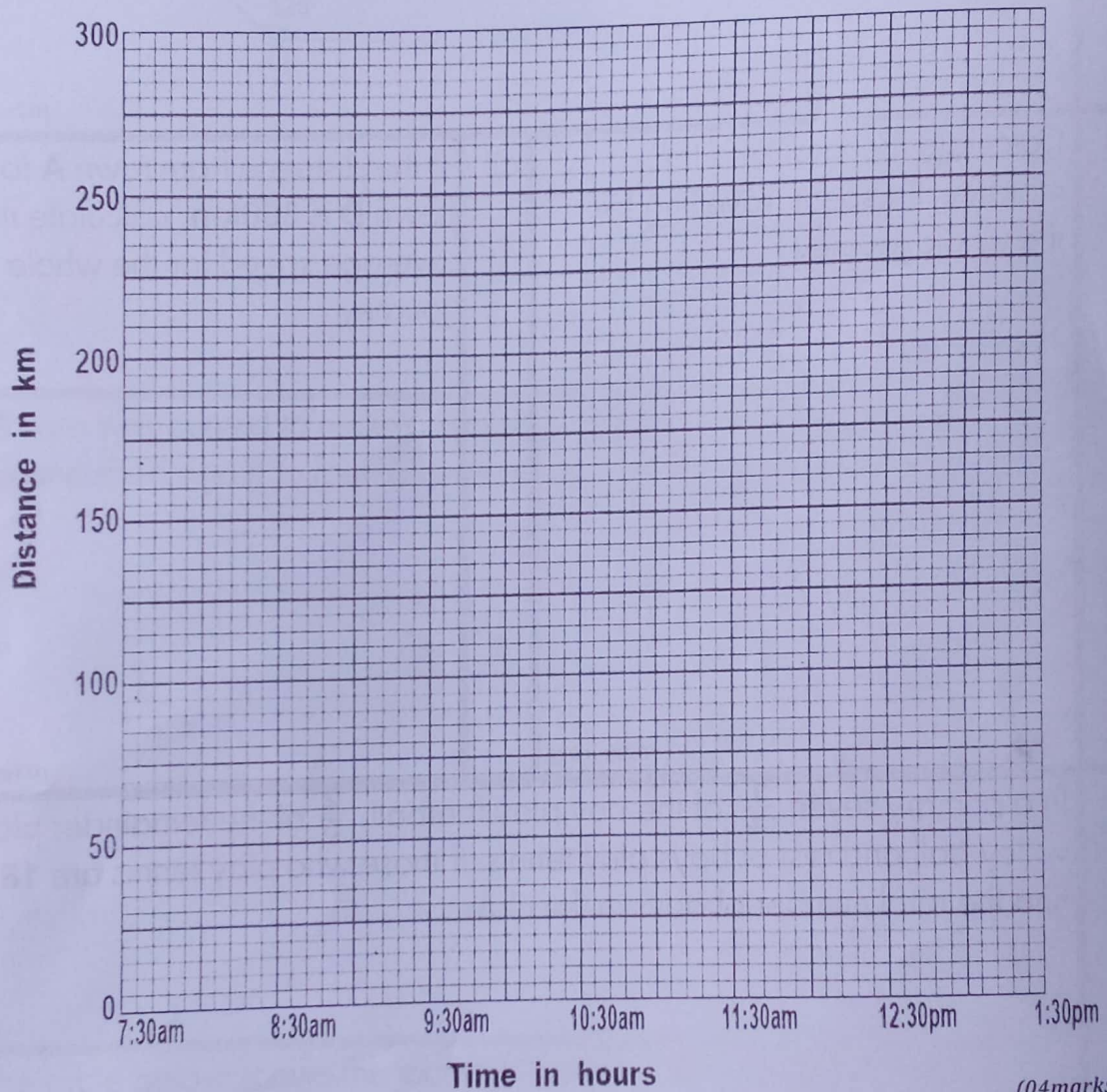
(03marks)

31 In a primary seven, $\frac{1}{4}$ of the boy play football, $\frac{2}{5}$ of the remainder play volley ball and rest of boys play tennis. If those who play tennis are **18**, find the total number of boys in the class.

(05marks)

- 32 Town **A** is **300km** from town **B**. A motorcyclist started a journey from town **A** at **7:30a.m.** he was travelling at a speed of **75km/hr** for **2** hours. He rested for **30** minutes and then continued at a speed of **50km/h** for the remaining journey to town **B**.

a) Represent the Motocyclist journey on the graph below.



(04marks)

- b) Find the time the motocyclist reached town **B**.

(02mark)