



# THE PRIME EXAMINATIONS 2023

## P.7 MOCK MATHEMATICS

*Time allowed 2 hours 15 minutes*

INDEX NO:

Random No.	Personal No.



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### READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. The paper is made up of two sections: A and B.  
Sections A has 20 questions (40 Marks) Section B has 12 questions (60 Marks)
2. Answer ALL questions. All answers in both sections A and B must be written in the spaces provided.
3. All answers must be written using blue or black ball point pen or ink. Any work done in pencil other than graphs and diagrams will not be marked.
4. Unnecessary changes of work may lead to loss of marks.
5. No calculators are allowed in the examination room.
6. Do not fill anything in the table indicated "FOR EXAMINERS' USE ONLY", and the boxes inside the question.

FOR EXAMINERS' USE ONLY		
QUESTION NUMBER	MARKS ATTAINED	INITIALS
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

APPROVED:

Consultant

Mathematics Department (PEC)

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Kampala

Turn Over

**Section A (40 Marks)**

1. **Workout:**  $7042 + 2513$

2. Write 71090 in words.

**MATHEMATICS**

3. Find the sum of all triangular numbers less than 12.
4. Find the number of elements in a set with 16 subsets.

Person's Name	INDEX NO:
DOMESTIC USE ONLY	Answer Box
DOMESTIC USE ONLY	Signature
DOMESTIC USE ONLY	Date

5. Write 0.00503 in standard form.

6. A school concert started at 9:30am and ended at 4:00pm. How long did the concert last?

NUMBER ATTENDED IN TOTAL	SECTION A AND B
1 - 5	Section A (10 Marks)
6 - 10	Section B (10 Marks)
11 - 15	

7. Using a ruler and a pair of compasses, construct an angle of  $135^\circ$ .

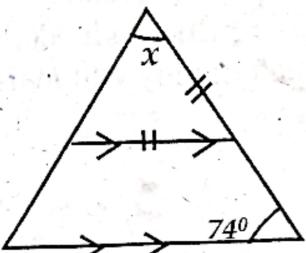
16 - 20	
21 - 25	
26 - 30	
31 - 35	
36 - 40	
41 - 45	
46 - 50	
51 - 55	
56 - 60	
61 - 65	
66 - 70	
71 - 75	
76 - 80	
81 - 85	
86 - 90	

8. Given that  $n = 3$ ,  $m = -2$  and  $y = 8$ , find the value of  $mn$ .

$$y + m$$

9. Change 4.56 tonnes to kilograms

FOR  
EXAMINERS, USE ONLY. **ANSWER**

10	In a box there are blue and red pens. The probability of picking a blue pen from the box at random is $\frac{5}{7}$ . If there are 10 red pens in the box, find the total number of pens in the box.	
12	John and Peter were told to report to the police station after 15 days and 16 days respectively. After how many days will they report to the police station together again?	13 Work out: $18.43 - 9.16 + 7.23$
14	Hadijjah bought $1\frac{1}{2}$ kg of rice at sh.1800 for every a half kg. Find how much Peter spent altogether.	15 Study the figure below and find the value of $x$ in degrees.
		 <p>Find <math>x</math></p>

16	A motorist covers 150km in 2 hours. How long will he take to cover a distance of 450km?	17	Solve $\frac{2}{3} P^2 = 24$
18.	Workout the mean of -4, 0, 9, 4 and 6	19	The circumference of a circle is 132dm. Calculate its radius.
20.	Omoding covered a distance of 60km in 1 hour and 15 minutes. Calculate his speed.		

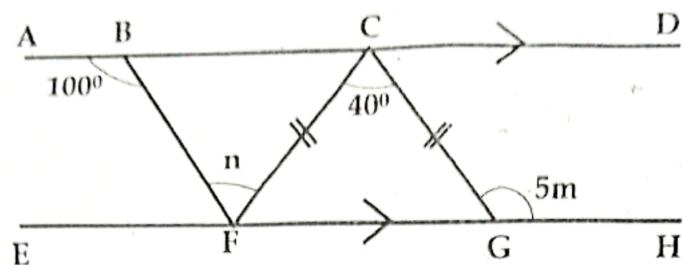
### Section B (60 Marks)

- 21 The list below shows prices of different items in a certain shop.  
 2kg of wheat flour at sh.8000  
 1kg of sugar at sh.4600  
 4 bars of soap at sh.14000  
 A half litre of milk at sh.900.  
 (a) How much money will Mafabi pay for 5kg of wheat flour? (02 marks)

- (b) Nafula buys 1kg of sugar, 2 litres of milk and 4 bars of soap, how much does she pay? (03 marks)

- 22 In a class, 48 pupils like Science (S), 60 like Maths (M), 2t like both subjects while 4 do not like any of the two subjects. (02 marks)
- (a) Complete the Venn diagram.
- 
- (b) If there are 100 pupils in the class, find the value of t (03marks)
- 23 Omondi deposited some money in a bank that offers a simple interest rate of 18% p.a. After 12 months, Omondi had an amount of sh.885,000 in the bank.
- (a) Calculate the amount of money Omondi deposited in the bank. (03marks)
- (b) Calculate Omondi's interest. (02marks)

- 24 In the figure below, AD is parallel to EH. Study the figure and answer the questions that follow.



(a) Find the value of m.

(03 marks)

(b) Find the value of n.

(02 marks)

- 25 Namanya filled a cylindrical tank with water using 10 containers of capacity 12.32 litres. If the base area of the cylindrical tank was  $616\text{cm}^2$ , find the height of the water in the cylindrical tank.

(05 marks)

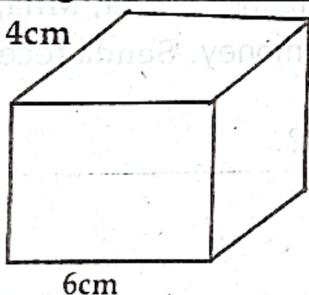
- 26 Wanume went to the market with sh.70,000 and bought the items shown in the table below. He was given a discount of sh.500 and went back home with sh.2000.

Complete the table.

Item	Unit cost	Total cost
2kg of meat	sh 14000	sh _____
3 fish	sh _____	sh 18000
$1\frac{1}{2}$ kg of chicken	sh _____	sh _____
		sh _____

(05marks)

- 27 Study the figure below and use it to answer the questions that follow.



(a) Calculate its T.S.A

(03marks)

(b) Work out its volume.

(02marks)

28 A parent spends  $\frac{2}{7}$  of her salary on food and the rest on fees. If she spends sh.210,000 more on fees than food. Calculate her total monthly salary. (05marks)

29 The interior and exterior angles of a regular polygon are  $3d$  and  $2d$  respectively. Name the polygon.

(05 marks)

30 A mother shared part of her money to three children Senda, Mila, and Kilo. Mila received  $\frac{1}{3}$  while Kilo received  $\frac{1}{5}$  of the money. Senda received  $\frac{1}{2}$  of the remainder.

(a) What fraction of the money was shared out? (03 marks)

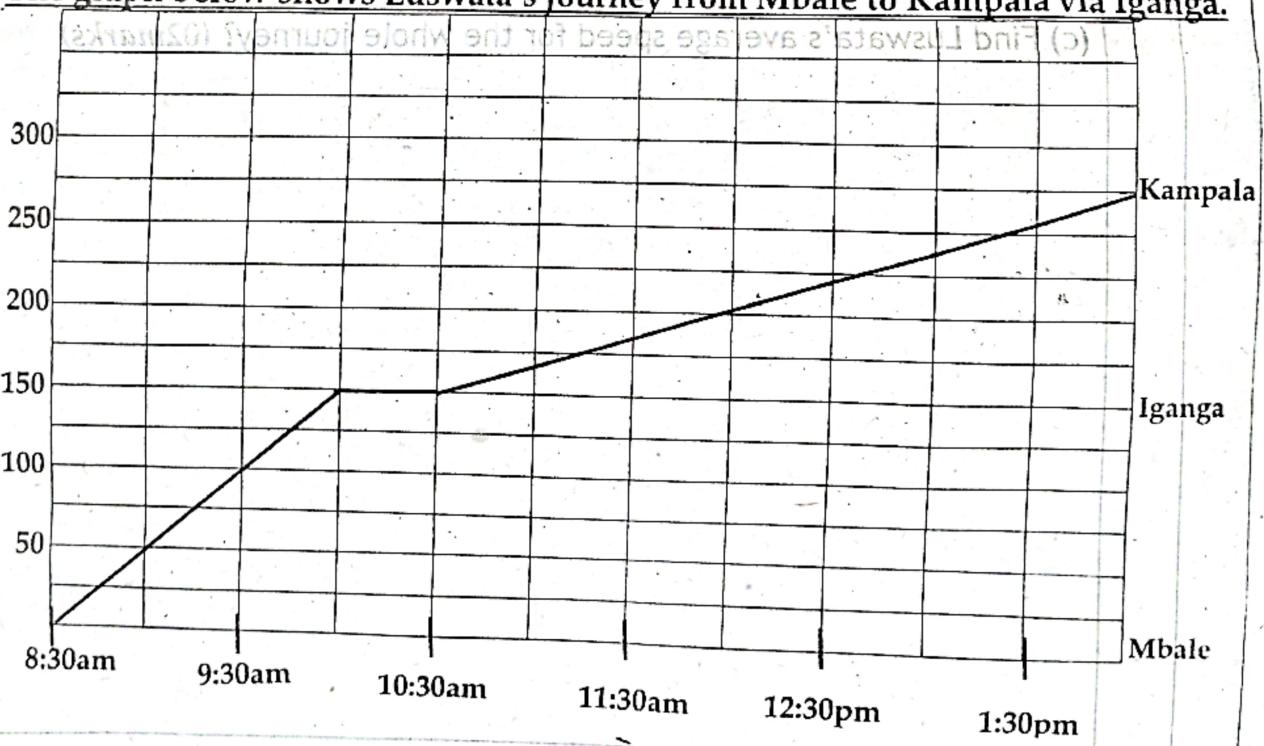
(b) If the mother remained with sh49,000, how much money did she have at first? (02marks)

31 A man was 27 years older than his son 10 years ago. His wife is four years younger than he is. If their total age is 116 years now, how old is the son?

(04marks)

(b) How old is the wife? (01marks)

32 The graph below shows Luswata's journey from Mbale to Kampala via Iganga.



(a) Where was Luswata at 10:15am? (01marks)

(b) At what speed was Luswata travelling at from Mbale to Iganga? (02marks)

(c) Find Luswata's average speed for the whole journey? (02marks)

