MPIGI DISTRICT ACADEMIC BOARD
MOCK EXAMINATION 2024

SUBJECT : **MATHEMATICS**

CLASS : **PRIMARY SEVEN**

DURATION : **2 HOURS 30 MINUTES**

EMIS NO. :

INDEX NO. :

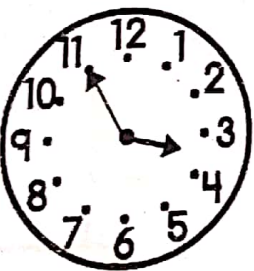CANDIDATE'S NAME: _____

CANDIDATE'S SIGN: _____

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO
READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. The paper is made up of **two** sections: **A & B**.

2. Section **A** has **20** questions **(40 marks)**

3. Section **B** has **12** questions **(60 marks)**

4. Answer **ALL** questions in both sections **A & B**

5. All answers must be written in the spaces provided in **BLUE** or **BLACK** ink. Only diagrams should be drawn in pencil.

6. **Unnecessary crossing** of work will lead to **loss of marks.**

7. **Poor handwriting**, which cannot be easily read may lead to **loss of marks.**

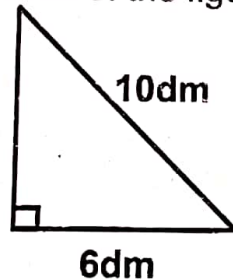8. Do not fill anything in the boxes shown

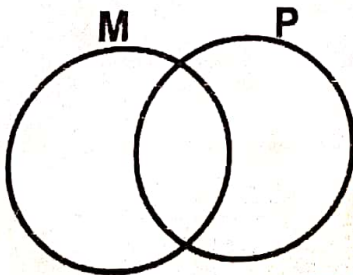| FOR EXAMINER'S USE ONLY		
PAGES	MARKS	EXAMINER'S INITIALS
Page 2		
Page 3		
Page 4		
Page 5		
page 6		
Page 7		
Page 8		
Page 9		
Page 10		
Page 11		
Page 12		
TOTAL		

①

Turn Over

1. Work out: 3 4 + 5

6. If ⚽ represents 12 balls, how many balls are represented by ⚽⚽⚽ ?

2. Write 20024 in words.

7. Solve for m.
$$\frac{1}{2}m - 4 = 16$$

3. Given that: X= {1, 2, 1, 3, 4}
   Y= {4, 2, 3, 1}

   i) n(X) = _____

   ii) Set X and Y are_____sets.

8. The exchange rates for US dollars at a Forex Bureau are;

Buying rate	Selling rate
Ugx 3700	Ugx 3800

   Joseph had 200 US dollar, how much money did he get after exchanging into Uganda shillings

4. Write the afternoon time shown on the clock face below in 24hour clock.

5. Simplify: ⁻7 - ⁻9

②

9. The lowest common multiple (LCM) and greatest common factor (GCF) of two numbers is 48 and 6 respectively. If one of the numbers is 24, find the second number.

10. Find the area of the figure below.

10dm

6dm

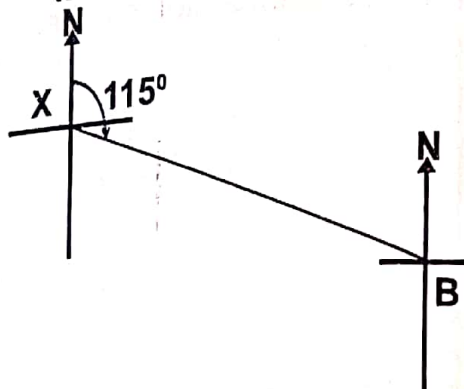**11.** Shade MUP - MnP

M   P

12. A motorist covered a certain distance at a speed of 60km/hr. If he spent 45 minutes travelling, what distance did he cover?

13. The exterior and interior angle of a regular polygon are in the ratio of 2:3 respectively, Calculate the size of each exterior angle.

14. Using a pair of compasses a ruler and a sharp pencil only, construct an angle of 45° in the space below.

③

15. In the diagram below, find the bearing of town X from town B.

17 A mathematics test having 20 numbers is marked out of 100% If Ms. Jane awards 5 marks for every corect answer and deducts 3 marks for every wrong answer, how many correct answers has a pupil who scores 68%?

16. Joan is the 15th girl from either side of the line. How many girls are in the line?
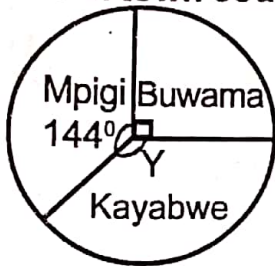
18 Simplify: $\dfrac{3}{4} \div 1\dfrac{1}{2}$

19. Find the sum of the next two missing numbers in the sequence below.

1,   4,   9,   16,   25,   _____,   _____.

20. The pie-chart below shows how Mpigi district distributed text books in town council schools.
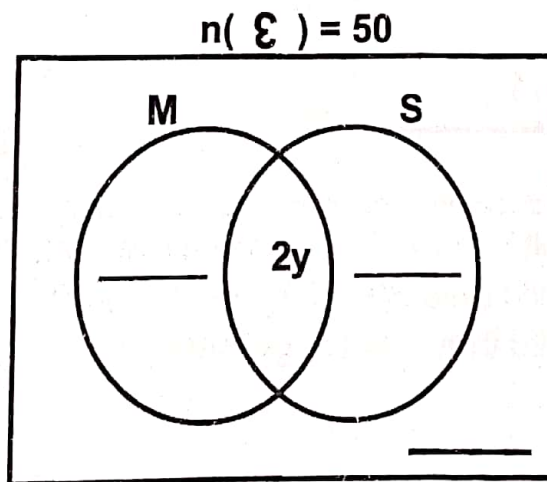
If Buwama received 1800 text books, how many were they altogether?

Mpigi 144° Buwama Y Kayabwe

SECTION: B (60 MARKS)

21. In a primary seven class of 50 pupils, a half of them like Mathematics (M), some pupils like Science (S), 2y pupils like both Mathematics and Science, 10 pupils like Science only and y + 5 dislike the two subjects.

a) Use the information above to complete the venn diagram below.

$n(\varepsilon) = 50$

M   S

_____   2y   _____

_____

(3 Marks)

⑤

b) Find the value of y.

(2 Marks)

c) What is the probability of picking a pupil at radom who dislikes the two subjects?

(1 mark)

22. **Given the cards** | 3 | | 6 | | 7 | | 0 |
a) Form the largest 4 - digit number using all the cards.

(1 mark)

b) Form the smallest 4 - digit number using all the cards.

(1 mark)

c) Find the sum of the largest and smallest numbers formed.

(2 Marks)

23a) Workout: 4   3   2 $_{five}$

_   1   1   3 $_{five}$

(2 Marks)

b) A taxi transported 10 adults and 4 children from Kampala to Mpigi. If each adult and each child paid Sh. 5000 and Sh. 2500 respectively, how much did they pay altogether?

(2 Marks)

24. **Study and complete Hasifa's shopping bill below.**

Item	Quantity	Unit Cost	Total Cost
Meat	1½ kg	Sh. 14000	Sh._____
Rice	2kg	Sh._____	Sh. 10,000
Sugar	_____ g	Sh. 5000kg	Sh. 2500
Cooking oil	3 litres	Sh._____	Sh._____
TOTAL EXPENDITURE			Sh. 48,500

(5 Marks)

b)   if she was given a discount of 10%, how much money did she pay?

(1 mark)

25a) Using a pair of compasses, a ruler and a pencil only, construct a parallelogram KLMN where line KL = MN = 6cm, angle LKN = 120⁰ and line LM = KN = 4cm.

(4 Marks)

⑦

b) Drop a perpendicular from point **M** to meet line **KL** at **T**. Find the area of the parallelogram formed.

(2 Marks)

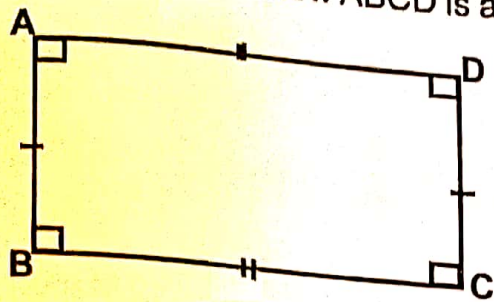26a) Simplify: $\dfrac{0.6 \times 2.7}{0.03 \times 0.9}$

(2 Marks)

b) During a population census of acertain village, $\frac{1}{4}$ of the people were counted on Monday, $\frac{2}{5}$ of the remainder were counted on Tuesday and the rest on Wednesday.
Find the fraction of people that was counted on Wednesday.

(3 Marks)

27. A motorist started the journey from Lyantonde at 7:00am moving at a speed of 70km/h and reached Lukaya at 9:00am. After resting for 30 minutes at Lukaya, he continued to kampala moving at a constant speed of 70km/h for 1 hour. He rested at Kampala for $\frac{1}{2}$ hour and then returned directly at Lyantonde for 2 hours. Calculate the motorist's average speed while travelling.
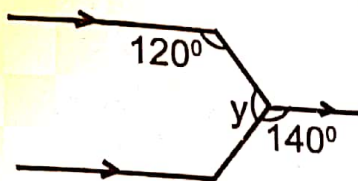
(4 Marks)

28a) In the figure below ABCD is a rectangle and angle ABC is $(4p + 30)^0$
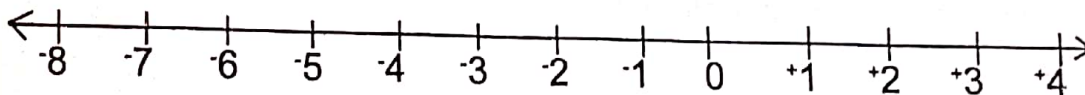

a)   Find the value P.

(2 Marks)

b)   Calculate the size of angle marked y in the diagram below.

120⁰

y

140⁰

(3 Marks)

29.a)   Use a number line below to work out, $^+3 - ^-7$.

-8   -7   -6   -5   -4   -3   -2   -1   0   +1   +2   +3   +4

(3 Marks)

⑨

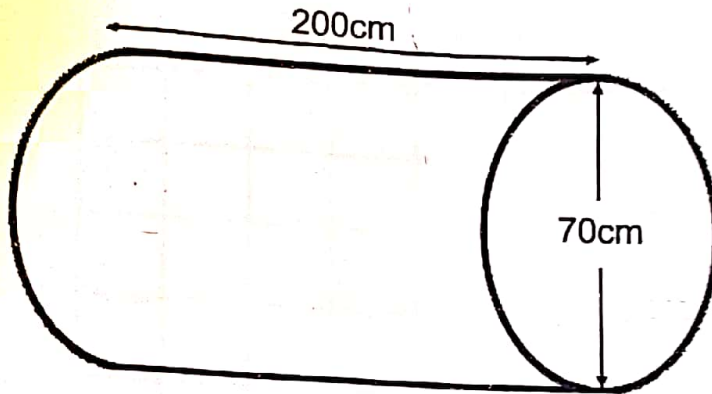b) If today is Wednesday, what day of the week was it 32 days ago?

(2 Marks)

30. Solve the inequality: $5 - 2x \geq 7$.

(2 Marks)

b) A mother is 30years older than her daughter. In two year's time, the mother will be thrice as old as daughter.
How old is the daughter now?

(3 Marks)

⑩

31. **The diagram below shows a roll of cloth which was cut open to make some clothes.**
Use it to answer the questions that follow.

200cm

70cm

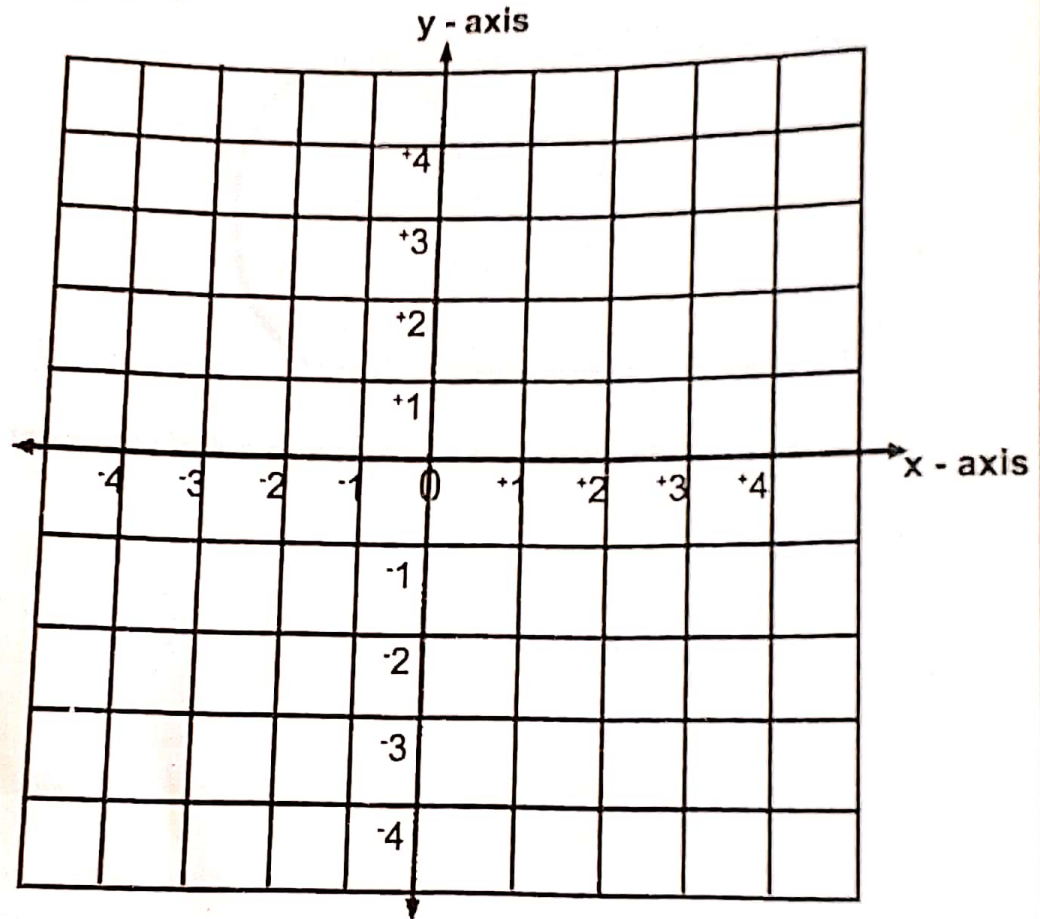a) Find the length of the cloth which was made out of the sheet.

$$\left[\pi = \frac{22}{7}\right]$$

(2 Marks)

b) Work out the area of the cloth in square metres.

(2 Marks)

32. **On the grid below,**
Plot the following points; p (3, ⁻1), Q (⁺3 , ⁺3), R (⁻2 , ⁺3), and
S (-2 , -1).

y - axis

x - axis

(4 Marks)

b) Join the points Q to R, R to S, S to P and P to Q.

(1 Mark)

c) Find the area of the figure formed after joining all the points.
(1 box represents 1cm)

(1 Mark)