

Prime THE PRIME EXAMINATIONS 2024

P.7 MID MARCH MATHEMATICS

Time allocated 2 hours 30 minutes



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Name:

Signature:

School:

District Name:

READ THE FOLLOWING INSTRUCTIONS CAREFULLY

1. This paper has two sections: A and B. Section A has 20 questions (40 Marks) and Section B has 12 questions (60 Marks)
2. Answer ALL questions. All the working for both sections A and B must be shown in the spaces provided.
3. All working must be done using a blue or black ball point pen or ink. Any work done in pencil other than on graphs and diagrams will not be marked.
4. No calculators are allowed in the examination room.
5. Unnecessary changes in your work and handwriting that cannot be read easily may lead to loss of marks.
6. Do not fill anything in the table indicated

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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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Turn Over

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Section A (40 Marks)

1	Work out: $236 + 102$	2	Express 67 in Roman numerals.
3	Given that $P = \{2, 3, 4, 5, 6, 7, 8\}$ and $Q = \{1, 2, 3, 4, 6, 12\}$. Find $n(P \cap Q)$	4	Find the value of 9 in the numeral 365.29
5	Find the next number in the sequence below. 16, 17, 21, 30, 46, _____	6	Arrange the integers in descending order: 6, -3, 0, 2, -5
7	Using a ruler and a pair of compasses only, construct an angle of 75° .		
8	Find the greatest common factor of 18, 30 and 42.	9	Change $\frac{3}{4}$ litres to ml.

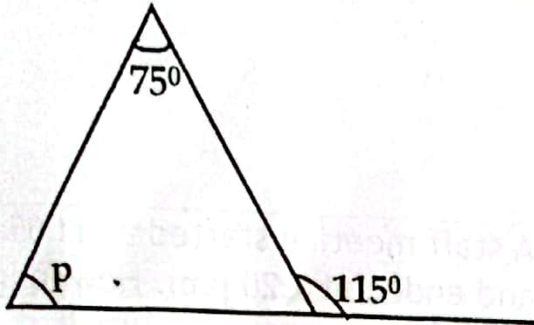
10 Change 112_{three} to base ten.

11

Use $>$, $<$ or $=$ to complete the statement.

$$\frac{5}{6} \quad \underline{\hspace{1cm}} \quad \frac{7}{8}$$

12 In the diagram below, find the size of angle marked p.



13 Sarah bought a dress at sh.25000 and sold it at a profit of sh.5000. How much did she sell the dress?

14

Calculate the circumference of a circular object whose radius is 14cm.
 $(\pi = \frac{22}{7})$

15 Simplify: $13k - 4m - 7k + 3m$

16

Aisha deposited sh.800,000 in a bank which offers an interest rate of 16% per annum for 8 months. Find the simple interest she got.

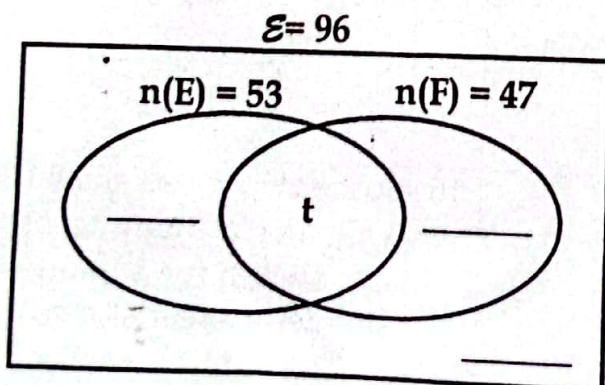
17	With out dividing, show that the number 537 is exactly divisible by 3.	18	The attendance of pupils of P.7 in Buhoye P/S is as follows; Mon -50, Tue- 61, Wed-73, Thur-80 and Fri -61. Calculate the average attendance of pupils that week.
19	Find the value of $8^2 + 6^2 + 10^0$.	20	A staff meeting started at 11:05a.m; and ended at 1:20 p.m. How long did it last?

Section B (60 Marks)

21 At a party of 96 guests, 53 could speak English (E), 47 could speak French (F) t guests could speak both English and French whereas 16 guests could not speak any of the two languages above.

(a) Complete the Venn diagram below.

(03 marks)



(b) Calculate the number of guests who could speak both English and French.

(02 marks)

22

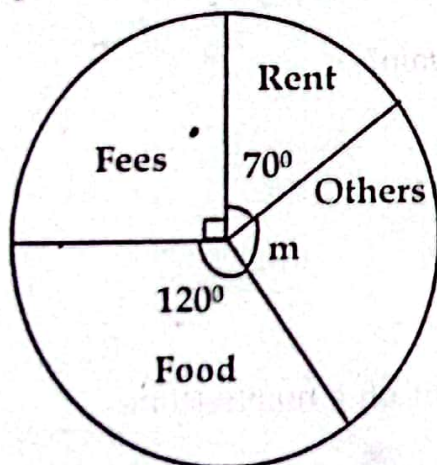
(a) Increase sh. 480,000 in the ratio 3:2.

(02 marks)

(b) Three daughters Anitah, Allen and Agnes shared sh. 240,000 in the ratio 3:4:5 respectively. How much money did each get? (03 marks)

23

The pie chart below shows how Kidima spends his monthly salary.



(a) Find the value of m in degrees.

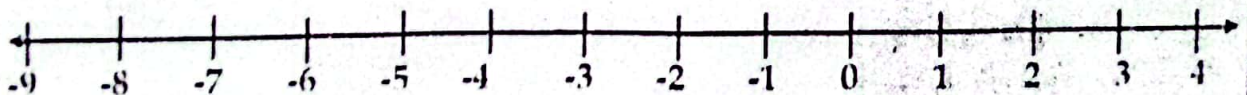
(02 marks)

(b) If he spends sh.240,000 on food every month, find his salary. (03 marks)

24 The three bells in a certain school ring at intervals of 20 minutes, 30 minutes and 40 minutes respectively. If the bells rang together at 11:00 a.m.
(a) After how long do they ring together? (02 marks)

(b) At what time will they ring together again? (03 marks)

25 Show the following mathematical statement on a number line.
(a) $-5 - +3$ (03 marks)



(b) If today is Wednesday, what day of the week will it be 20 days after? (02 marks)

26 (a) Work out: $\frac{0.36 \times 0.27}{0.12 \times 0.9}$

(02 marks)

(b) Eight boys take 12 days to do a piece of work. How many boys are needed to do the same work in six days? (02 marks)

27 (a) What number has been expressed in standard form to give 4.096×10^2 ? (02 marks)

(b) Write 3695.4 in expanded form using values.

28

The table below shows marks scored by P.7 pupils in a test.

Marks	75	90	80	70
Frequency	3	1	4	2

(a) Find the median mark.

(02 marks)

(b) Calculate the average score.

(03 marks)

(c) Find the range of the scores.

(01 mark)

29

A pupil was sent for shopping with sh.30,000 and she bought the following items.

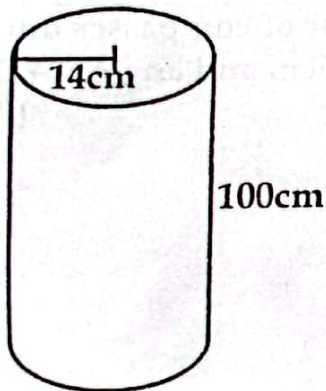
$1\frac{1}{2}$ kg of sugar at sh.6000 per kg.
 250ml of cooking oil at sh.8,000 a litre.
 12 apples at sh.2,000 for every 3 apples

(06 marks)

Calculate the pupil's balance.

30

Study the cylindrical tank below and use it to answer questions.



(a) Find the volume. ($\pi = \frac{22}{7}$)

(03 marks)

(b) Find its capacity.

(02 marks)

31

(a) Jacob is thrice as old as Juma. Their total age is 32 years. How old is Juma? (03 marks)

(b) Solve: $\frac{5n}{8} = 20$

(02 marks)

32

(a) With the help of a ruler, a sharp pencil and a pair of compasses only, construct a triangle XYZ where $\overline{xy} = 7\text{cm}$, $\overline{yz} = 5\text{cm}$ and angle. $\angle XYZ = 120^\circ$. (04 marks)

(b) Measure angle YXZ.

(01 mark)