



# THE MILESTONE EXAMINATIONS 2024

## P.7 SET I TERM II

### MATHEMATICS

Time allowed: 2 hour 30 minutes

Index No.

EMIS No.						Personal No.		

Candidate's Name: .....

Candidate's Signature: .....

School Name: .....

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO**

**Read the following instructions carefully;**

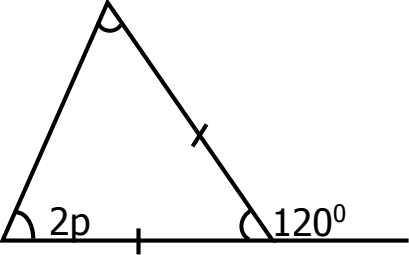
1. This paper has two sections: **A** and **B**
2. Section **A** has **20** questions (**40 marks**)
3. Section **B** has **12** questions (**60 marks**)
4. Answer all questions. All the working for both sections **A** and **B** must be shown in the spaces provided.
5. All working must be done using a blue or blackball point pen or ink. Any work done in pencil will **NOT** be marked.
6. Unnecessary changes in your work and handwriting that cannot be easily read may lead to loss of marks.
7. Do not fill anything in the table indicated "**For Examiners' use only**" and the boxes inside the question paper.

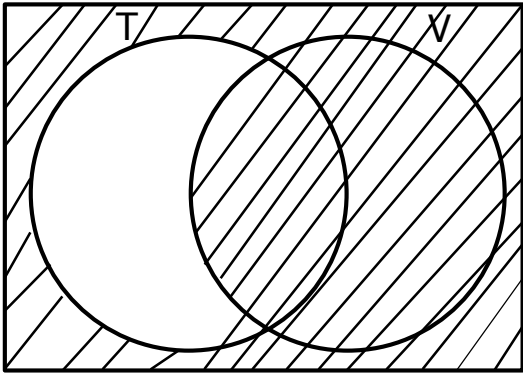
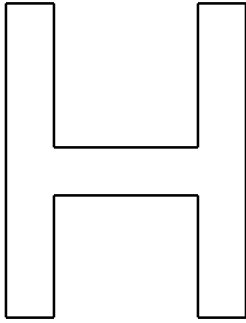
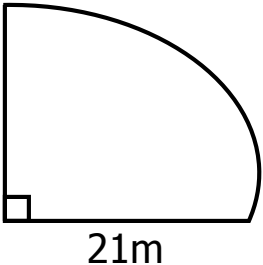
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FOR EXAMINERS' USE ONLY		
Qn. No.	Marks	EXR's No.
1-5		
6-10		
11-15		
16-20		
21-22		
23-24		
25-26		
27-29		
30-32		
TOTAL		

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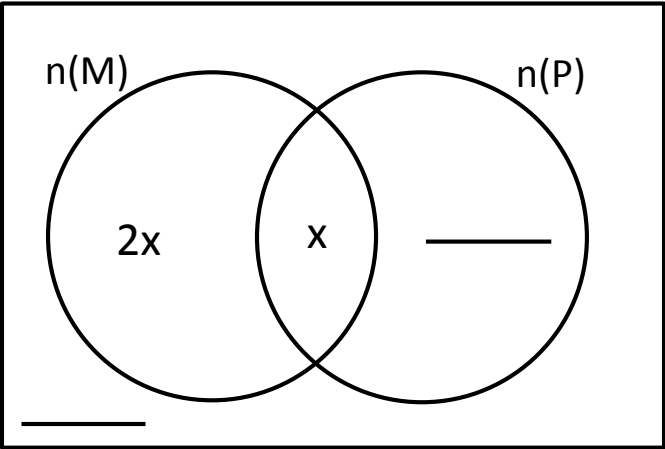
**SECTION A (40 MARKS)**

<b>1</b>	Multiply $3 \times 5$ using repeated addition.	<b>2</b>	Write CXCIV in words
<b>3</b>	Given that set Q has 31 proper subsets. How many elements does set Q have?	<b>4</b>	Find the next number in the sequence: 7, 11, 20, 36, 61 _____
<b>5</b>	Simply $5p - r + P + 7r$ .	<b>6</b>	Find the value of P in the figure below. 
<b>7</b>	Express 72km/h as m/s	<b>8</b>	Round off 59.98 to one decimal place.
<b>9</b>	How many quarter litre packets of cooking oil can be got from a 20 litre jerrycan of cooking oil?	<b>10</b>	In a P.7 class, there are 30% more boys than girls. Find the percentage of boys.

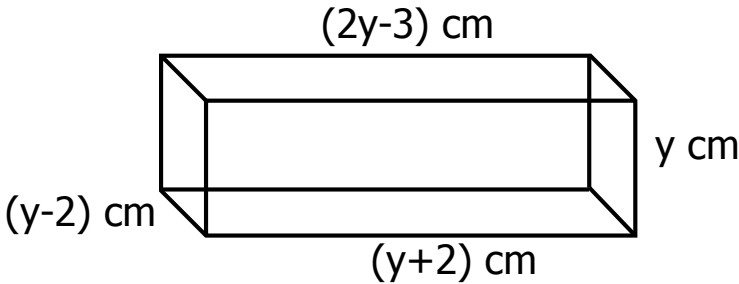
<b>11</b>	<p>Describe the shaded part in the Venn diagram below.</p> 	<b>12</b> <p>How many lines of folding symmetry has the figure below? (show them).</p> 
<b>13</b>	<p>find the least number of sweets such that when divided by 6 boys, 2 remain and when divided by 8 girls 4 remain.</p>	<b>14</b> <p>Work out <math>12 \div (7 - 3) + 7</math>.</p>
<b>15</b>	<p>Calculate the perimeter of the figure below. (Use <math>\pi</math> as <math>\frac{22}{7}</math>)</p> 	<b>16</b> <p>If 4 men take nine days to complete a job. How long will 12 men take to finish the job at the same rate?</p>
<b>17</b>	<p>Simplify <math>^{-}9 - ^{-}6</math>.</p>	<b>18</b> <p>The average mass of 3 boys is 24 kg. If the mass of the two boys is 50 kg. Find the mass of the third boy.</p>

<b>19</b>	Using a ruler, a pencil and a pair of compasses only. Construct an angle of $75^\circ$	<b>20</b>	Use the distributive property to workout $(126 \div 3) + (27 \div 3)$
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### SECTION B (60 MARKS)

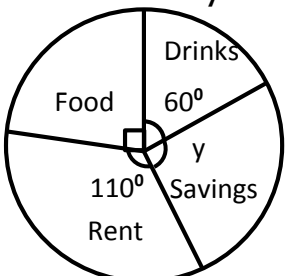
<b>21</b>	<p>At a birthday party attended by guests. <math>2x</math> guests took Mirinda (M) only, <math>(x+10)</math> guests took Pepsi (P) only. <math>x</math> guests took both Mirinda and Pepsi while 2 guest took none of the two drinks.</p> <p>a) Use the above information to complete the Venn diagram below.</p> <p style="text-align: center;"><math>n(\Sigma)</math>      <b>2 Mks</b></p> 	<p>a) If 32 guests took Pepsi altogether, how many pupils took both Mirinda and Pepsi? <b>(2 Mks)</b></p> <p>b) How many guests attended the party? <b>(1 Mks)</b></p>
<b>22</b>	<p>a) Given the number 2,045. Show the number on the abacus below. <b>(2 Mks)</b></p> <div style="text-align: center;"> <p><b>TH    H    T    O</b></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> </div> <div style="border: 1px solid black; height: 40px; width: 250px; margin: 10px auto;"></div> </div>	<p>b) Write the given number above in scientific notation. <b>(2 Mks)</b></p>

	c) Expand the given number using exponents. <b>(2 Mks)</b>
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<b>23</b>	<p>Teacher Venekent went to the market and bought the following items.</p> <p>2kg of sugar at Shs. 4,000 a kg.</p> <p>500g of meat at Shs. 15,000 per kg.</p> <p>12 mangoes at Shs. 1,000 for every 3 mangoes.</p> <p>10 tomatoes at Shs. 3,000.</p>	
	<p>a) How much did he spend altogether. <b>(4 Mks)</b></p>	<p>b) If Teacher Venekent remained with shs.17,500, after buying all items, how much did he have at first? <b>(1 Mk)</b></p>
<b>24</b>	<p>The figure below is a cuboid, study and use it to answer the questions that follow.</p> <div style="text-align: center;">  </div>	
	<p>a) Find the value of y. <b>(2 Mks)</b></p>	<p>b) Calculate the volume of the cuboid. <b>(3 Mks)</b></p>

25	<p>A family eats a total of 93kg of rice for three consecutive days. It eats two more kilograms than the previous day.</p> <p>a) If <math>p</math> kg of rice are eaten on the second day, find the value of <math>p</math>. <b>(3Mks)</b></p>		
<p>b) How many kilograms of rice are eaten on the third day. <b>(2 Mks)</b></p>			
26	<p>Use the number line below to answer the questions that follow.</p> <div data-bbox="487 987 1185 1218" data-label="Figure"> <p>The figure shows a horizontal number line with tick marks and labels from -7 to 6. Three arrows are drawn: arrow 'a' is a solid line starting at 0 and ending at -4; arrow 'b' is a solid line starting at 0 and ending at 5; arrow 'c' is a dashed line starting at 0 and ending at -7.</p> </div> <div data-bbox="203 1260 1518 1543" data-label="List-Group"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top; padding: 10px;"> <p>a) Write the integers represented by the arrows. <b>(1 Mk each)</b></p> <p>(i) a _____</p> <p>(ii) b _____</p> <p>(iii) c _____</p> </td> <td style="width: 50%; vertical-align: top; padding: 10px;"> <p>b) Write a mathematical sentence represented on the number line above. <b>(2 Mks)</b></p> </td> </tr> </table> </div>	<p>a) Write the integers represented by the arrows. <b>(1 Mk each)</b></p> <p>(i) a _____</p> <p>(ii) b _____</p> <p>(iii) c _____</p>	<p>b) Write a mathematical sentence represented on the number line above. <b>(2 Mks)</b></p>
<p>a) Write the integers represented by the arrows. <b>(1 Mk each)</b></p> <p>(i) a _____</p> <p>(ii) b _____</p> <p>(iii) c _____</p>	<p>b) Write a mathematical sentence represented on the number line above. <b>(2 Mks)</b></p>		

<p><b>27</b></p>	<p>A motorist left town P at 3:00pm and reached town Q at 5:00pm after traveling at an average speed of 84km/h.</p> <p>a) How long did the motorist take to travel from town P to town Q? <b>(2 Mks)</b></p>	<p>b) Find the distance between town P and town Q. <b>(2 Mks)</b></p>
<p><b>28</b></p>	<p>a) Change <math>\frac{1}{4}</math> to a decimal. <b>(2 Mks)</b></p>	<p>b) Work out <math>\frac{40.85 + 14.4}{24.5 - 13.45}</math> <b>(3 Mks)</b></p>
<p><b>29</b></p>	<p>In the diagram below, line PQ and line RS are parallel to each other <math>\overline{TU} = \overline{TQ}</math>.</p> <p>a) Find the value of x in degrees. <b>(3 Mks)</b></p>	<p>b) Calculate the size of angle QTU. <b>(2 Mks)</b></p>

<p><b>30</b></p>	<p>a) Using a ruler, a pencil and a pair of compasses only, Construct a triangle XYZ in which <math>XY = 6\text{cm}</math>, angle <math>ZXY = 45^\circ</math> and angle <math>XYZ = 60^\circ</math>. <b>(4 Mks)</b></p>	<p>b) Measure <math>\angle XYZ</math>. <b>(1 Mk)</b></p>
<p><b>31</b></p>	<p>a) If <math>a = 3</math>, <math>b = -4</math> and <math>c = 6</math>. Find the value of <math>\frac{ab}{c}</math></p>	<p>b) Alfred is thrice as old as Wilfred. In 2 years' time, the sum of their age will be 34 years. How old is Alfred now?</p>
<p><b>32</b></p>	<p>The pie chart below shows how Mr. Edison spends his salary.</p>  <p>a) Find the value of <math>y</math> in degrees. <b>(2 Mks)</b></p>	<p>b) If he spends shs.36,000 on drinks. Find his salary. <b>(2 Mks)</b></p> <p>c) Express the food sector as a fraction. <b>(1 Mk)</b></p>

**END**