



# CENTENARY EXAMINATIONS BOARD

## PRIMARY SIX MATHEMATICS

### END OF TERM ONE ASSESSMENT 2024

Time allowed 2 hours 30 minutes

PUPIL'S NAME: File copy ..... STREAM P.7 .....  
SCHOOL NAME High Quality Nur & Primary School .....  
DISTRICT: Kakumiro - Kakinda - Omukubale .....

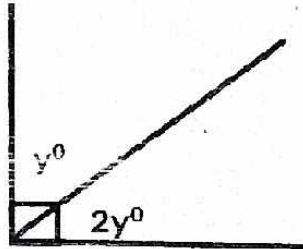
Read the following instructions carefully:

1. The paper has two Sections: A and B.
2. Answer all questions. All answers to both section A and B must be written in the Space provided.
3. All answers must be written using a blue Or black ball-point pen or ink.
4. Unnecessary changes of work may lead to loss of marks.
5. Any handwriting that cannot easily be Read may lead to loss of marks.
6. Do not fill anything in the boxes shown: "For Examiners' Use Only" and those Inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No.	Marks	Examiner's No.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
Total		



# SECTION A. (40 MRKS)

1. Subtract	$\begin{array}{r} 8 \quad 12 \\ 4 \quad 2 \\ - 2 \quad 8 \\ \hline 1 \quad 4 \end{array}$	2. Write 2643 in words.	Two thousand six hundred forty three
3. Find the L.C.M of 12 and 20.	$\begin{array}{c c c} 2 & 12 & 20 \\ \hline 2 & 6 & 10 \\ \hline 3 & 3 & 5 \\ \hline 5 & 1 & 1 \\ \hline \end{array}$ $(2 \times 2 \times 3 \times 5) = 4 \times 15 = 60$ <p>LCM of 12 and 20 = 60</p>	4. Convert 48kg to g.	$1\text{kg} = 1000\text{g}$ $48\text{kg} = (48 \times 1000)\text{g}$ $= 48000\text{g}$
5. Given that: $K = \{2, 4, 6, 8\}$ Find $n(K)$	$K = \{2, 4, 6, 8\}$ $n(K) = 4$	6. Simplify $5m + 2n - 3m + n$	$5m + 2n - 3m + n$ $5m - 3m + 2n + n$ $2m + 3n$
7. What is the sum of first three odd numbers?	$\text{Sum} = 1 + 3 + 5$ $\text{Sum} = 1 + 8$ $\text{Sum} = 9$	8.	 <p>Find the value of <math>y</math>.</p> $y^\circ + 2y^\circ = 90^\circ$ $3y^\circ = 90^\circ$ $\frac{3y^\circ}{3} = \frac{90^\circ}{3}$ $y^\circ = 30^\circ$
9. Given that 4 eggs cost shs 1,200. How many eggs will one buy with shs. 300.	$4\text{ eggs} = \text{sh } 1200$ $\text{sh } 1200 = 4\text{ eggs}$ $\text{one egg} = \frac{1200}{4} \text{ eggsh}$ $= 300$	10. Divide 243 by 3.	$\begin{array}{r} 61 \\ 3 \overline{) 243} \\ \underline{18} \phantom{0} \\ 63 \\ \underline{63} \\ 0 \end{array}$ $= 61$

$$\frac{4}{10} \times 3 = \frac{12}{10}$$

$$\frac{12}{10} = \frac{6}{5}$$

$$\frac{6}{5} = 1.2$$

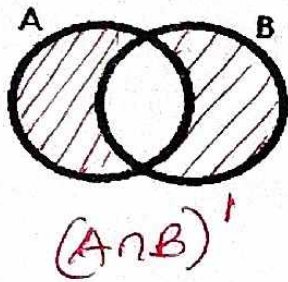
$$1.2 \times 300 = 360$$

$$300\text{sh} = \left( \frac{1}{300} \times 300 \right)^{0.6} \text{egg} \text{ MTC}$$

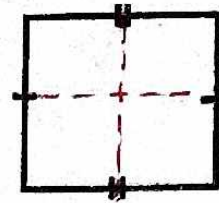
$$= 1 \text{ egg}$$



11. In the Venn diagram, shade  $(A \cap B)'$




12. Show the **lines of folding symmetry** in the figure below.



13. Express 68 in Roman Numerals.

$$\begin{array}{r} 60 + 8 \\ \downarrow \quad \downarrow \\ LX \quad VIII \\ 68 = LXVIII \end{array}$$

14. Given that  represents 10 pupils, draw pictographs to represent 40 pupils.

$$\begin{aligned} 1 \text{ picto} &= 10 \text{ pupils} \\ 10 \text{ pupils} &= 1 \text{ picto} \\ 40 \text{ pupils} &= \left( \frac{1}{10} \times 40 \right) \text{ pictos} \\ &= 4 \text{ pictos} \end{aligned}$$



15. Add:

	1	1	
1	2	3 five	
+	4	2 five	
<hr/>			
	2	20 five	
<hr/>			

$$5 \div 5 = 10$$

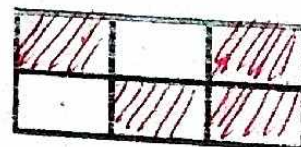
16. Mary had shs. 18,000. She bought a skirt at shs 3,200. How much money was she left with?

$$\begin{array}{r} \text{sh. } 18,000 \\ - \text{sh. } 3,200 \\ \hline \text{sh. } 14,800 \end{array}$$

17. Write 3089 in expanded form using powers.

$$(3 \times 10^3) + (0 \times 10^2) + (8 \times 10^1) + (9 \times 10^0)$$

18. In the Venn diagram shade  $\frac{2}{3}$



$$\begin{aligned} \frac{2}{3} \text{ of } 6 \\ 2 \times 2 \\ = 4 \end{aligned}$$

19. Reduce  $\frac{12}{60}$  to its simplest form.

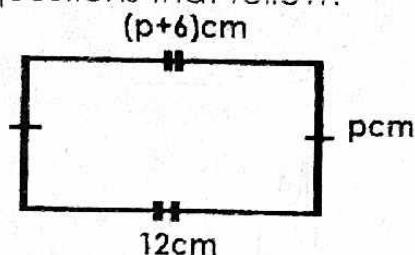
$$\begin{array}{r} 12 \text{ R } 3 \\ \hline 60 \\ 20 \\ \hline 155 \end{array} = \frac{3}{5}$$

20. What is the **place value** of 3 in 4.39

4.39  
Tenths

**SECTION B. (60 Mrks)**

21. Below is a rectangle, use it answer questions that follow.



- (a) Find the value of  $p$ . (2mks)

$$(P+B) \text{ cm} = 12 \text{ cm}$$

$$P_{cm} + 6cm = 12cm$$

$$P_{cm} + 6cm = 12cm$$

$$P_{cm} + 0 = 6 \text{ cm}$$

$$\frac{P_{cm}}{1cm} = \frac{6cm}{1cm}$$

$$P = 6$$

$$p = \epsilon$$

- (b) Find the **area** of the rectangle. (3mks)

Area =  $L \times W$

Area =  $12\text{cm} \times 13\text{cm}$

$$\text{Area} = 72 \text{ cm}^2$$

22. A car travelled from 9:00am to 11:00am at a steady speed of 60km/hr. Find the distance covered by the car. (5mks)

$$\text{Time} = \frac{11:00 \text{ am} - 9:00 \text{ am}}{2:00 \text{ hr}}$$

$$\begin{aligned}\text{Distance} &= \text{Speed} \times \text{Time} \\ &= 60 \text{ km/hr} \times 2 \text{ hours}\end{aligned}$$

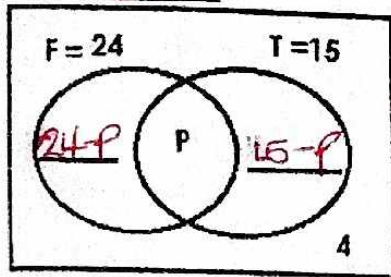
Distance = 60km x 2

Distance = 120 km



23. In a class of **36 boys**, **24 boys** like Football (F), **15 boys** like Tennis (T), and some **boys like both games (P)** while **4 boys** don't like any of the two games.

$n(\Sigma) = 36$



- (a) Complete the Venn diagram. (3mks)

- (b) Find the value of P. (2mks)

$$24 - P + P + 15 - P + 4 = 36$$

$$24 + 15 + 4 - P = 36$$

$$43 - P = 36$$

$$43 - 36 = P$$

$$7 = P$$

- (c) If a pupil is picked at random, find the number of pupil who likes only one type of game. (1mk)

$$\text{Probability} = \frac{\text{NO. OF C}}{\text{N.O. P.O.C}} = \frac{24 - P + 15 - P}{36}$$

$$\frac{17 + 8}{36}$$

$$= \frac{25}{36}$$

24. (a) What is the value of 6 in 2365 (1mk)

$$6 \times 10 = 60$$

- (b) Express LXXV in Hindu Arabic. (2mks)

$$\begin{array}{c} \text{LXXV} \\ \downarrow \quad \downarrow \\ 60 + 15 \end{array}$$

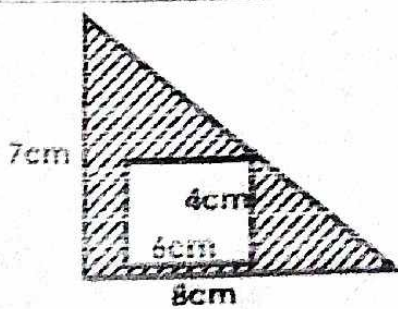
$$\text{LXXV} = 75$$

- (c) Expand 8023 using values. (2mks)

$$(8 \times 1000) + (0 \times 100) + (2 \times 10) + (3 \times 1)$$

$$8000 + 20 + 3$$

25.



- (a) Find the area of the triangle. (2mks)

$$\begin{aligned} A &= \frac{1}{2} b \times h \\ &= \frac{1}{2} \times 8 \text{ cm} \times 7 \text{ cm} \end{aligned}$$

$$A = 4 \text{ cm} \times 7 \text{ cm} = 28 \text{ cm}^2$$

- (b) Calculate the area of the rectangle. (2mks)

$$\text{Area} = L \times W$$

$$\text{Area} = 6 \text{ cm} \times 4 \text{ cm}$$

$$\text{Area} = 24 \text{ cm}^2$$

- (c) Work out the area of the shaded part. (2mks)

$$A_{\text{triangle}} - A_{\text{of Rectangle}} = 28 \text{ cm}^2 - 24 \text{ cm}^2$$

$$A = 4 \text{ cm}^2$$



<p>26. (a) List down all <b>factors</b> of 15. (2mks)</p> <p><math>1 \times 15 = 15</math>  <math>3 \times 5 = 15</math>  <math>F_{15} = \{1, 3, 5, 15\}</math></p> <p>(b) Find the <b>L.C.M</b> of 12 and 8. (2mks)</p> <p> <math display="block">\begin{array}{r rr} 2 &amp; 12 &amp; 8 \\ \hline 2 &amp; 6 &amp; 4 \\ \hline 2 &amp; 3 &amp; 2 \\ \hline 3 &amp; 3 &amp; 1 \end{array}</math> <math>2 \times 2 \times 2 \times 3</math>  <math>4 \times 6</math>  <b>LCM = 24</b> </p>	<p>(c) Find the <b>square</b> of 12. (2mks)</p> <p><math>12^2</math>  <math>12 \times 12</math>  <b>144</b></p>
<p>27. Peter went shopping and bought the following items.  4kg of salt at 600 each kg.  3 bars of soap at 6,000  <math>1\frac{1}{2}</math> litres of oil at 1,000@ litres</p>	
<p>(a) Calculate his total expenditure. (4mrks)</p> <p> <u>Salt</u>  sh (4X600)  sh 2400  <hr/> <u>Soap</u>  sh 6000  <u>oil</u>  <math>\frac{3}{2} \times 1000</math>  <math>\frac{3000}{2}</math>  sh 1500 </p> <p> <u>Total</u>  sh 2400  + sh 6000  sh 1500  <hr/> sh 9900 </p>	<p>(b) If he had 10,000, calculate his change after paying for the items. (2mrks)</p> <p> sh 10,000  - sh 9900  <hr/> sh 100 </p>
<p>28. (a) Simplify <math>\frac{3}{4}</math> of 16 (2mrks)</p> <p> <math>\frac{3}{4}</math> of 16  <math>\frac{3}{4} \times 16</math>  <math>\frac{3 \times 16}{4}</math>  <math>\frac{48}{4}</math>  <math>3 \times 2</math>  <b>= 6</b> </p>	<p>(b) Workout <math>\frac{1}{4} - \frac{1}{3} + \frac{1}{2}</math> (2mrks)</p> <p> <math>\frac{1 \times 2}{4} - \frac{1 \times 2}{3} + \frac{1}{2}</math>  <math>\frac{1 \times 2}{4} - \frac{1}{3}</math>  <math>\frac{2 \times 3}{4} - \frac{1 \times 4}{3} = \frac{6-4}{12}</math>  <math>= \frac{2}{12}</math>  <math>= \frac{1}{6}</math> </p>

29. Use  $>$ ,  $<$  or  $=$  to complete the statements below.

100cm  $<$  1m

$1\frac{1}{2}$  dozen  $>$  12 books

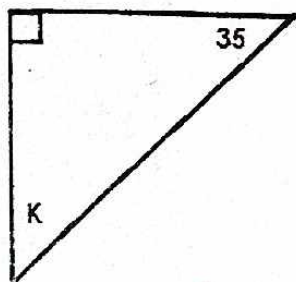
$\frac{1}{4}$   $<$   $\frac{1}{3}$

$7 \times 0$   $<$  10

③  
1x12  
41  
④  
1x12  
81

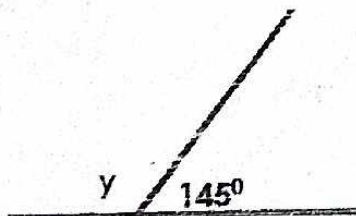
30. Use the figures below to find the value of unknown angles. (2mrks@)

(a)



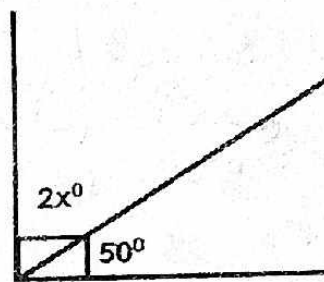
$$\begin{aligned} K + 35^\circ + 90^\circ &= 180^\circ \\ K + 125^\circ &= 180^\circ \\ K + 125^\circ - 125^\circ &= 180^\circ - 125^\circ \\ K &= 55^\circ \end{aligned}$$

(b)



$$\begin{aligned} y + 145^\circ &= 180^\circ \\ y + 145^\circ - 145^\circ &= 180^\circ - 145^\circ \\ y + 0 &= 35^\circ \\ y &= 35^\circ \end{aligned}$$

(c)



$$\begin{aligned} 2x^\circ + 50^\circ &= 90^\circ \\ 2x^\circ + 50^\circ - 50^\circ &= 90^\circ - 50^\circ \\ 2x^\circ + 0 &= 40^\circ \\ 2x^\circ &= 40^\circ \\ \frac{2x^\circ}{2} &= \frac{40^\circ}{2} \\ x^\circ &= \frac{20^\circ}{1^\circ} \\ \underline{x = 20} \end{aligned}$$



31. Given that  $a = 4$ ,  $b = 5$ ,  $x = 6$ . Find;  
(i)  $2a + 3b$  (1mrk)

$$\begin{aligned} &2a + 3b \\ &(2 \times 4) + (3 \times 5) \\ &8 + 15 \\ &23 \end{aligned}$$

- (ii)  $3x - 2b$  (1mrk)

$$\begin{aligned} &3x - 2b \\ &(3 \times 6) - (2 \times 5) \\ &18 - 10 \\ &8 \end{aligned}$$

- (iii)  $\frac{2x+2a}{b}$  (2mks)

$$\begin{aligned} &\frac{2x + 2a}{b} \\ &\frac{(2 \times 6) + (2 \times 4)}{5} \\ &\frac{12 + 8}{5} \\ &\frac{20}{5} \\ &4 \end{aligned}$$

32. Joel ate  $\frac{1}{4}$  of his cake in the morning and  $\frac{1}{3}$  of the same cake in the afternoon.

- (a) What fraction of the cake did Joel eat altogether? (2mks)

$$\begin{aligned} &\frac{1 \times 3}{4} + \frac{1 \times 4}{3} = \frac{3+4}{12} \\ &= \frac{7}{12} \end{aligned}$$

- (b) Find the fraction of the cake that was left. (2mks)

$$\begin{aligned} &\frac{12}{12} - \frac{7}{12} = \frac{12-7}{12} \\ &= \frac{5}{12} \end{aligned}$$

\*\*\*End\*\*\*