

CONFIDENTIAL EXAMINATIONS 2024

P.7 MATHEMATICS

Time allowed: 2hours 30minutes

**INDEX
NO.**

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CANDIDATE'S NAME

CANDIDATE'S SIGNATUREDATE

SCHOOL'S EMIS NO.....

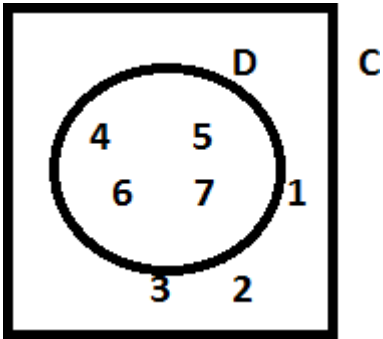
DISTRICT NAME

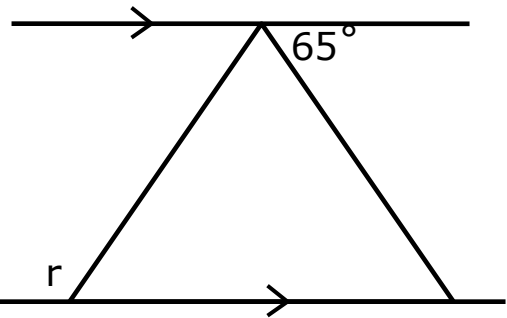
READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections **A** and **B**
2. All the working in both sections **A** and **B** should be shown in the spaces provided
3. All workings **MUST be** done using **blue** or **black point pen** or fountain pen. Diagrams **MUST** be drawn in pencil
4. Unnecessary changes of work may lead to loss of marks
5. Any handwriting that cannot be easily read may lead to loss of marks
6. Do not fill in anything indicated for examiners use only and those inside the paper

SECTION	MARKS
SECTION A	
SECTION B	
TOTAL	

SECTION A

1	Workout: $0 \div 2$	2	Write four hundred ninety two in figures.
3	<p>Given the sets C and D below.</p>  <p>Find $n(C)$</p>	4	Solve: $3p - 3 = 4$ (finite8)

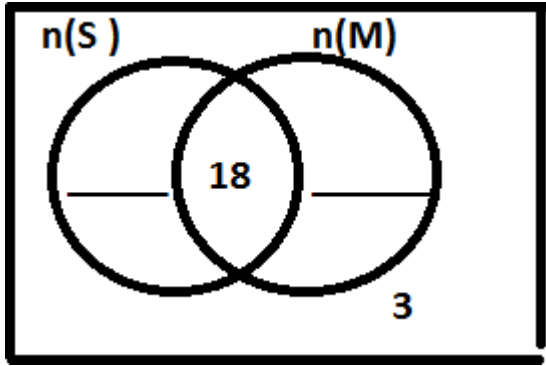
5	Express 60cm as a percentage of 3 meters.	6	What is the mean of $\frac{1}{2}$ and $\frac{1}{3}$?
7	<p>In the diagram below, find the size of angle r.</p> 	8	Find the lowest common multiple of two numbers whose product and GCF is 360 and 6 respectively.

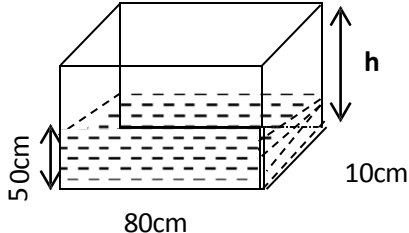
9	Work out: 4×10^{-3}	10	Using a pair of compasses, a ruler and a pencil only, construct an angle of 105°
11	A tortoise at reptiles village has lived for 2490 years, Express the tortoise's age in Roman numerals.	12	Set Q has 63 proper subsets. Determine its number of elements.

13	Five sets cost sh. 20,000 How many similar sets can one buy with sh.36,000 at the same rate?	14	Simplify: $\frac{3k+2}{4} - \frac{k+1}{3}$
15	Calculate $(33.4 \times 9) - (9 \times 3.4)$ using distributive property.	16	Three porters can build the house in 6 days. How many more porters will be needed to build the same house in 2 days working at the same rate?

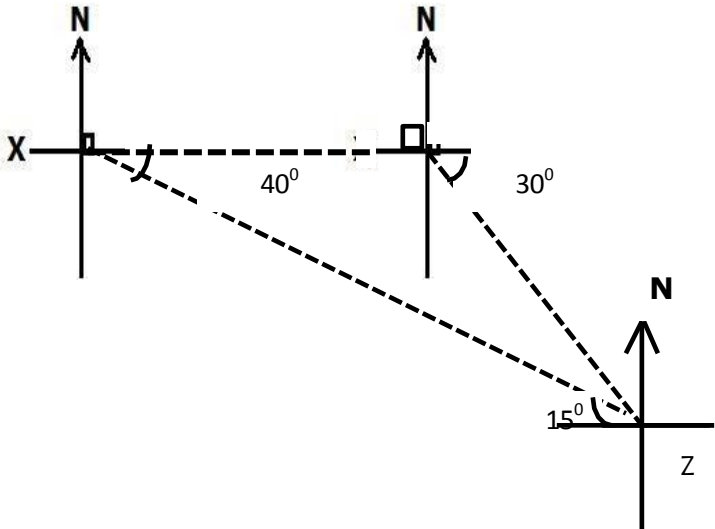
17	It is 8:00a.m now. What time of the day will it be after 68 hours?	18	Electric poles were fixed on both sides of the road 2km long at intervals of 20m. How many poles were fixed?
19	In a class, there are 13 girls and 12 boys. What is the probability of choosing a boy at random to become a prefect?	20	A tourist has Ugsh82,500 and wants to buy Us dollars from a forex bureau. How many dollars will the tourist get if US\$1=Ugsh2750?

SECTION B(60MARKS)

21	<p>In a class of 50 pupils, 32 like science(S), K like Maths (M) only, 18 like both subjects while 3 like both subjects.</p> <p>Complete the Venn diagram below. (2marks)</p> <p style="text-align: center;">$\mathcal{E}=50$</p> <div data-bbox="321 535 863 898"></div>
b)	<p>How many pupils like maths? (2marks)</p>
c)	<p>Find the probability of choosing a pupil at random who does not like mathematics to be a captain. (1mark)</p>

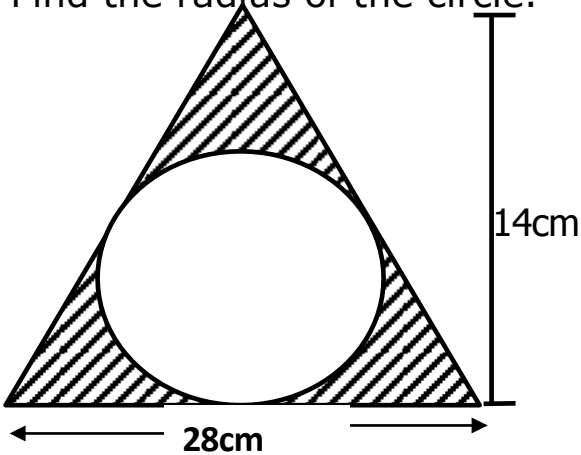
<p>22</p> <p>a)</p>	<p>In a village of 450 people, $\frac{3}{5}$ are males and the rest are females. $\frac{2}{3}$ of the males are above 18 years and $\frac{1}{4}$ of the females are below 18years.</p> <p>Find the total number of people below 18 years of age.(3marks)</p>
<p>b</p>	<p>If the number of males increased by 30, in what ratio did it increase? (2marks)</p>
<p>23</p> <p>a)</p>	<p>The tank below is $\frac{1}{3}$ full of water.</p>  <p>How many liters of water are in the tank? (2marks)</p>

b	How many liters are needed to fill the tank? (2marks)
c	Find the water level when the tank is completely full of water. (1mark)
24a	The scale on a map is 1:9000. If the distance on the map is 5cm, what is the actual distance in km? (2marks)

b	<p>Use the diagram below to answer the questions that follow.</p>  <p>(2marks)</p>
b	<p>Find the direction of:</p> <p>(i) Y from Z (1mark)</p> <p>(ii) Z from X (1mark)</p>
25a	<p>Solve: $9 - 2p = 3$ (2marks)</p>
b	<p>Six years ago, a man was ten times as old as the daughter.</p>

	If the sum of their present age is 45 years, how old is the daughter? <div>(3marks)</div>									
26a	Using a pair of compasses, a ruler and a pencil only construct a parallelogram PQRS, where by $PQ=7.7\text{cm}$, angle $PQR=45^\circ$ and line $QR = 3.8\text{cm}$. <div>(4marks)</div>									
b)	Measure angle PRS <div>(1mark)</div>									
27	Study the following exchange rates and answer the questions that follow. <table><tr><td>Currency</td><td>Selling price (Ugsh)</td><td>Buying price (Ugsh)</td></tr><tr><td>Ksh 1</td><td>36</td><td>35</td></tr><tr><td>US \$1</td><td>3600</td><td>3560</td></tr></table>	Currency	Selling price (Ugsh)	Buying price (Ugsh)	Ksh 1	36	35	US \$1	3600	3560
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	<table border="1"><tr><td>£ 1</td><td>4850</td><td>4800</td></tr></table>	£ 1	4850	4800							
£ 1	4850	4800									
a)	Anam had Ksh 2500, how much money in Uganda shillings did he get? (2marks)										
b)	If Alvin had 240 pound sterlings, How many US dollars did he get? (3marks)										
28	<p>The equation of a line is $x=y-2$ Complete the table using the equation. (4marks)</p> <table border="1"><tr><td>X</td><td>_____</td><td>2</td><td>-2</td><td>_____</td></tr><tr><td>Y</td><td>4</td><td>_____</td><td>_____</td><td>-2</td></tr></table>	X	_____	2	-2	_____	Y	4	_____	_____	-2
X	_____	2	-2	_____							
Y	4	_____	_____	-2							

29	<p>The number of right angles of a polygon is 12. Calculate the number of sides of a polygon. (2marks)</p>
b	<p>The sum of interior angles of a regular polygon is 1440°. Find the size of each exterior angle. (3marks)</p>
30	<p>The area of the shaded part in the figure below is 42cm^2. Find the radius of the circle. (4mks)</p> 

31	An exercise book costs sh.330. Walugembe uses 12 books every term. How much does walugembe's father spend on his books in every school year of three terms? (3marks)
b	Bernard had a half loaf of bread. He shared it among his 6 visitors. How much did each visitor receive? (2marks)
32	The sum of three consecutive even numbers is 66, If the middle number is m, Find the value of m (2marks)
b)	Find their product. (2marks)

End