THE REPUBLIC OF UGANDA

TAAND EXAMINATIONS BOARD

PRIMARY LEAVING MOCK EXAMINATION, 2024

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Random Number						Personal Number		

Candidate's Name: .....

Candidate's Signature.....

School Name:.....

District:.....

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

Read the following instructions carefully:

1. This paper is made up of two Sections: A and B.
2. Section A, has 20 short-answer questions (40 marks) and Section B has 12 questions (60 marks)
3. All the working for both sections A and B must be shown in the spaces provided.
4. All working must be done using a blue or black ball - point pen or fountain pen. Only diagrams should be done in pencil.
5. No calculators are allowed in the examination room.
6. Unnecessary alteration of work may lead to loss of marks.
7. Any handwriting that cannot easily be read may lead to loss of marks.
8. Do not fill anything in the boxes indicated "For examiners' use only"

FOR EXAMINER'S USE ONLY		
Qn. No.	Marks	Exrs' No.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

© Printed by UDA Kampala Tel: 0701 - 616 861 / 0772 - 834543

Turn Over

SECTION A: (40 Marks)

Answer all questions in section A. Each question carries 2 marks.

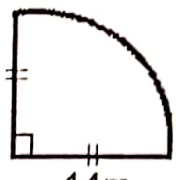
1. Work out: 43 x 2.

2. Find the sum of $^{-}9$ and $^{+}6$.

3. Express "Seventy two thousand, seven hundred two" in figures.

4. Solve for w: 2(w - 4) + 6 = 10.

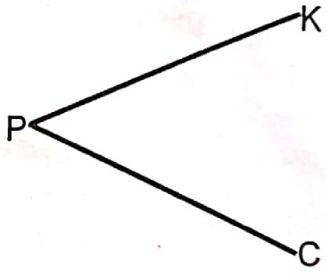
5. Below is a shape of a school dining hall. Calculate the perimeter of the hall.



6. Find the next number;
   36, 28, 21, 15, 10, ____

7. Find the range of: $^{-}3$, 4, 0, $^{-}6$, 1.

8. Bisect angle KPC using a pair of compasses and a ruler only.



9. Simplify using the distributive property
   $15 \div 4 - 7 \div 4$.

10. A meeting ended at 4:00pm. At what time did it start if it took $2\frac{1}{2}$ hours?

11. Convert LIX to Roman numerals.

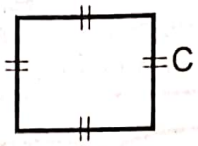
12. Work out: $24 \div 0.04$.

13. Given that $a * b = 3a - \frac{1}{2}b$.
Find the value of $2 * 8$.

14. On a straight line of boys, Tom is the 7th from the front and the 4th from the back. How many boys are on the line?

15. Find the value of: $\frac{3}{8} - \frac{3}{4} + \frac{1}{2}$.

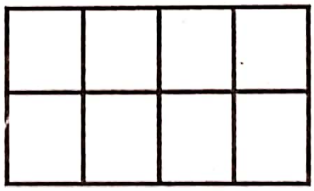
16. The area of the square below is $144cm^2$. Find the value of C.



17. Calculate the simple interest on Sh:600,000 at a rate of 2% per annum in 4 years.

18. 3 books cost sh.6000.
Find the cost of $1\frac{1}{2}$ dozens of the same books at the same rate.

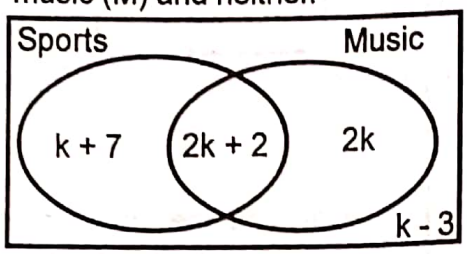
19. Shade 25% of the shape below.



20. Express 792.5 in scientific form.

SECTION B: (60 Marks)

21. The venn diagram below shows the number of pupils who like sports (S), music (M) and neither.



(a) Find the value of k if 36 like sports. (3marks)

(b) How many pupils like Music? (2marks)

22. (a) Work out: 3^2 = ... (finite 5). (2marks)

(b) Today is Tuesday. What day of the week was it 69 days ago? (3marks)

23. (a) Given the digits 4, 9, 2 and 6. Write the smallest 4-digit number in words.
(2marks)

(b) Given the numeral 74,928, divide the value of 4 by the value of 2.
(2marks)

24. In 6 days, a farmer sold the following sugarcanes; 18, 30, 15, 40, 13 and 28.

(a) Find his range. *(1mark)*

(b) Calculate the median sale. *(2marks)*

(c) Workout the mean sale. *(2marks)*

25. Kaguta has a farm of animals. $\frac{1}{3}$ of the animals are goats, $\frac{1}{8}$ of the remaining animals are sheep and the rest are cattle.

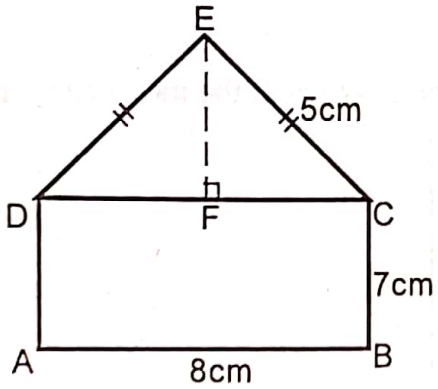
(a) Find the fraction of the cattle. *(3marks)*

(b) If he has 9 sheep, find the total number of animals on the farm. *(2marks)*

26. (a) With the help of a pair of compasses, a ruler and a sharp pencil, construct triangle CDE such that CD = 8cm, CDE = 45^0 and ECD = 60^0. Drop a perpendicular line from E to meet line segment CD at F. *(4marks)*

(b) Measure EF. *(1mark)*

27. On the figure below, CDE is an isosceles triangle and ABCD is a rectangle.



(a) Find the length EF. *(3marks)*

(b) Calculate the perimeter of ABCED. *(2marks)*

28. (a) Solve: $4r - 6 = 2(r + 4)$. *(2marks)*

(b) Fred is 12 years old now. His sister Mary is 27 years old.
In how many years will Mary become twice as old as Fred? *(3marks)*

29. Three siblings Yasin, Badru and Aisha have some land in the ratio 2:4:9 respectively. Aisha has 63 acres more than Yasin.

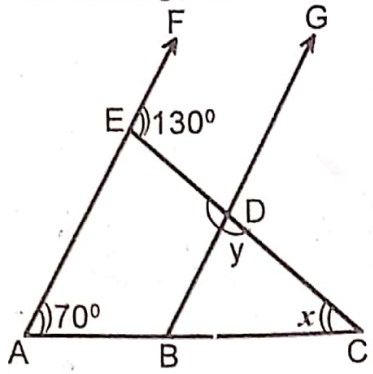
(a) Find the fraction of Badru's land. *(1mark)*

(b) Calculate the total acres of land for all the siblings. *(4marks)*

30. (a) Multiply: 729×63. *(3marks)*

(b) A trader bought 16,544kg of rice. He packed them in sacks of 47kg each.
How many sacks did he get? *(2marks)*

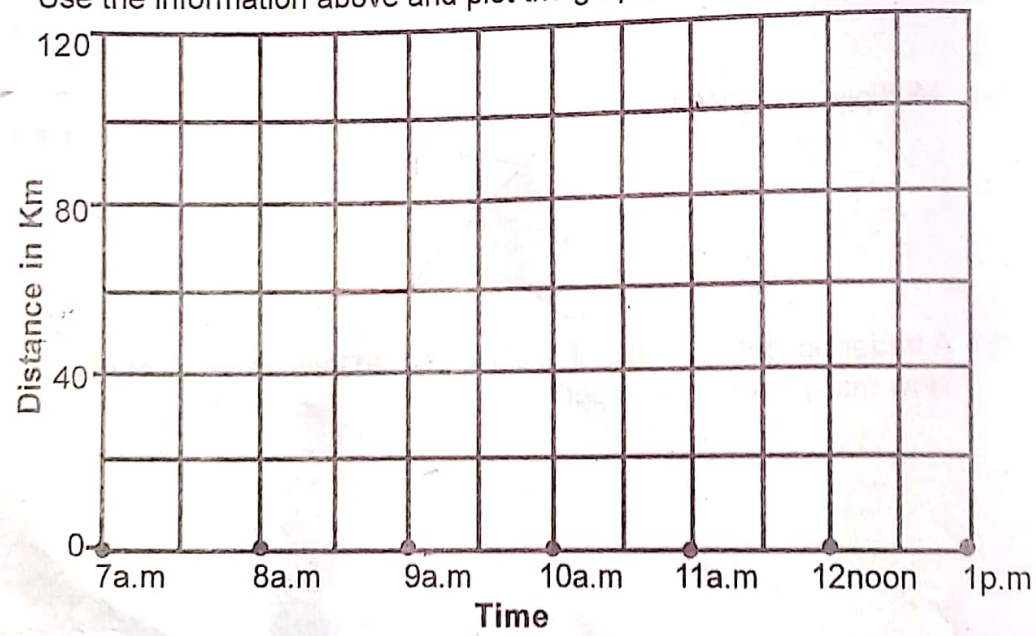
31. On the diagram below, AF is parallel to BG. CAF = 70^0 and FED = 130^0.



(a) Find the value of x. *(2marks)*

(b) Calculate the size of angle y. *(3marks)*

32. A cyclist travelled at 7:00am from his village at an average speed of 40km/hr for $1\frac{1}{2}$ hours to a market where he rested for 30 minutes. From the market, he rode for 1 hour to a town 40km away. He rested for 1hour and returned from town to his village at 50km/hr in 2 hours. Use the information above and plot the graph below correctly. *(5marks)*



END

TAAND P.7 MTC MOCK MARKING GUIDE TERM II, 2024

SECTION A:(40 MARKS)

1. 43 × 2 = 86 — B_2

2. $^-9 + 6$
$^-9 + 6$
$= ^-3$ — M_1 A_1

3. 72,000 + 702 = 72,702 — B_2

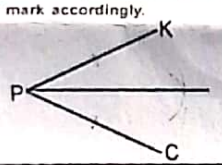
4. $2(w - 4) + 6 = 10$
$2w - 8 + 6 = 10$
$2w - 2 = 10$
$2w - 2 + 2 = 10 + 2$
$\frac{2w}{2} = \frac{12}{2}$
$w = 6$ — M_1 A_1

5. P = (Circumf) + R + R
$\frac{1}{4} \times (2\pi R) + R + R$
$\left\{\frac{1}{4} \times 2 \times \frac{22}{7} \times 14\right\} + 14m + 14m$
$= 22m + 28m$
$= 50m$ — M_1 A_1

6. 36, 28, 21, 15, 10, 6
-8 -7 -6 -5 -4
10 - 4 = 6 — M_1 A_1

7. R = H - L
R = 4 - $^-10$
4 + 10
R = 14 — M_1 A_1

8. *Check through the candidates work and mark accordingly.



B_2

9. $15 \div 4 - 7 \div 4$
$= (15 - 7) \div 4$
$8 \div 4$
$= 2$ — M_1 A_1

10. $2\frac{1}{2}$ hr $\frac{1}{2} \times 60^{30}$
= 2 hr 30min
Hrs min
$^{1}\cancel{3}$ 00
- 2 30
1 30 pm — B_1 B_1

11. LIX
L + IX
50 + 9
= 59 — M_1 A_1

12. $24 \div 0.04$
$\frac{24}{1} \div \frac{4}{100}$
$\cancel{24}^{3} \times \frac{100}{\cancel{4}}$
$= 600$ — M_1 A_1

13. a * b
2 * 8
a = 2, b = 8
$3a - \frac{1}{2}b$
$(3 \times a) - (\frac{1}{2} \times b$
$(3 \times 2) - (\frac{1}{2} \times \cancel{8}^{4})$
6 - 4
= 2 — M_1 A_1

14. (7 + 4) - 1 Or (7 - 1) + 4
11 - 1 6 + 4
= 10 boys = 10 boys — M_1 A_1

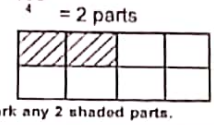
15. $\frac{3}{8} - \frac{3}{4} + \frac{1}{2}$
$= (\frac{3}{8} + \frac{1}{2}) - \frac{3}{4}$
$= \frac{3 + 4 - 6}{8} = \frac{7 - 6}{8} = \frac{1}{8}$ — M_1 A_1

16. S x S = C
S^2 = C
$144cm^2$ = C
$\sqrt{144CM^2}$ = C
12cm = C
C = 12cm — M_1 A_1

17. SI = P x R x T
SI = sh 600,000 x $\frac{2}{100}$ x 4
SI = sh 48,000 — M_1 A_1

18. 3 books → sh 6000
1 book → sh 6000 ÷ 3
= sh 2000
1 doz = $\frac{3}{1}$ x 12 books
= 18 books
18 books → 18 x sh 2000
= sh 36000 — B_1 B_1

19. $\frac{25}{100}$ x 8 parts
= 2 parts



*Mark any 2 shaded parts. — M_1 A_1

20. 7.92×4
$= 7.924 \times 10^2$ — B_2

SECTION B: (60 MARKS)

21. (a) k + 7 + 2k + 2 = 36
k + 2k + 7 + 2 = 36
3k + 9 - 9 = 36 - 9
$\frac{3k}{3} = \frac{27}{3}$
k = 9 — M_1 M_1 A_1

(b) **Music**
2k + 2 + 2k
(2 x k) + 2 + (2 x k)
(2 x 9) + 2 + (2 x 9)
18 + 2 + 18
= 38 pupils
Or
2k + 2k + 2
4k + 2
(4 x k) + 2
(4 x 9) + 2
36 + 2
= 38 pupils — M_1 A_1

22. (a) 3^2 = ____ (finite 5)
3 x 3 = ____ (finite 5)
9 ÷ 5 = 1 r 4 (finite 5)
= 4 (finite 5) — M_1 A_1

(b)

S	M	T	W	T	F	S
0	1	2	3	4	5	6

Tuesday - 69 = ___ (finite 7)
2 - 69 69 ÷ 7 = 9 r 6
2 - 6 = ____ (finite 7)
(2 + 7) - 6
9 - 6 = 5
The day was Friday — M_1 M_1 A_1

23. (a) Smallest = 2469
= Two thousand, four hundred sixty nine. — B_1 B_1

(b) 7 4 9 2 8
20
4000
= 200
200
4000
20 — M_1 A_1

24. (a) R = H - L
R = 40 - 13
R = 27 sugarcanes — B_1

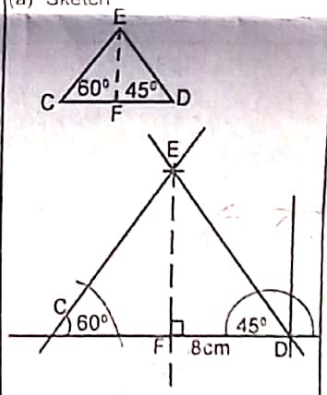
(b) 13, 15, 18, 28, 30, 40
(18 + 28) ÷ 2
46 ÷ 2
= 23 sugarcanes — M_1 A_1

(c) Mean = Sum of data / No of data
$M = \frac{18 + 30 + 15 + 40 + 13 + 28}{6}$
Mean = $\frac{144}{6}$
= 24 sugarcanes — M_1 A_1

25. (a) Goats = $\frac{1}{3}$
Remainder = $\frac{3}{3} - \frac{1}{3} = \frac{3 - 1}{3} = \frac{2}{3}$ — B_1
Sheep $\frac{1}{6} \times \frac{2}{3} = \frac{1}{12}$
Cattle $1 - (\frac{3}{2} + \frac{3}{2})$
$1 - \frac{3}{2}$
$\frac{12}{12} - \frac{5}{12} = \frac{7}{12}$ — B_1 B_1

(b) Sheep → $\frac{1}{12}$ → 9
1 part represents 9 animals
12 parts represent 12 x 9 a
= 108 animals — B_1 B_1

26. (a) Sketch

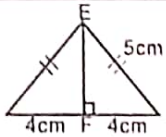


S_1

C_1 C_1 L_1

(b) 4 8cm / 4 9cm / 5cm — B_1

27.

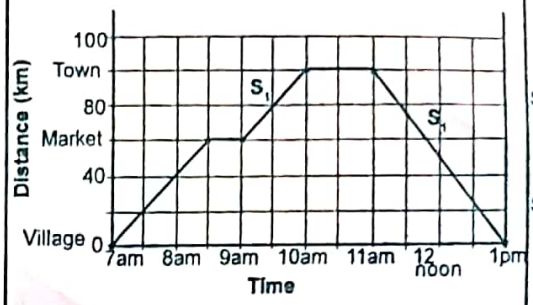


(a) $(EF)^2 + 4^2 = 5^2$
$(EF)^2 + 16 = 25$
$EF^2 + 16 - 16 = 25 - 16$
$\sqrt{EF^2} = \sqrt{9}$
EF = 3cm — M_1 M_1 A_1

(b) P = S + S + S + S + S
P = 8cm + 7cm + 5cm + 5cm + 7cm
P = 32cm — M_1 A_1

(pg 2) - 1

QN	SOLUTIONS	
28	(a) $4r - 6 = 2(r + 4)$ $4r - 6 = 2r + 8$ $4r - 6 + 6 = 2r + 8 + 6$ $4r = 2r + 14$ $4r - 2r = 2r - 2r + 14$ $\frac{2r}{2} = \frac{14}{2}$ $r = 7$	M_1 A_1
	(b) Fred: Now 12, x years $12 + x$ Mary: Now 27, x years $27 + x$ $2(12 + x) = 27 + x$ $24 + 2x = 27 + x$ $24 - 24 + 2x = 27 - 24 + x$ $2x = 3 + x$ $2x - x = 3 + x - x$ $x = 3$ years	M_1 M_1 A_1
29	(a) Total parts $2 + 4 + 9 = 15$ Badru = $\frac{4}{15}$	B_1
	(b) Yasin 2, Badru 4, Aisha 9, Total 15 $9 - 2 = 7$ 7 parts represent 63 acres 1 part represents $(63 \div 7)$ acres = 9 acres 15 parts represent = 15 x 9 acres = 135 acres. **Or** Let the total land be C $7C = 63$ acres $\frac{7C}{7} = \frac{63 \times 15}{7}$ acres $C = 135$ acres	B_1 B_1 B_1 B_1
30	(a) 729 x63 2187 + 4374 45927 **Or** *Mark use of lattice	B_1 B_1 B_1
	(b) 352 47 | 16544 - 141 214 0244 - 235 94 - 94 00 **Or** $\frac{352}{16544}$ / 47 = 352	M_1 A_1
31	(a) $x + 70^0 = 130^0$ $x + 70^0 - 70^0 = 130^0 - 70^0$ $x = 60^0$ **Or** $x + 70^0 + 50^0 = 180^0$ $x + 120^0 = 180^0$ $x + 120^0 - 120^0 = 180^0 - 120^0$ $x = 60^0$	M_1 A_1
	(b) Note * check through the candidates work. $y + 60^0 + 70^0 = 180^0$ $y + 130^0 = 180^0$ $y + 130^0 - 130^0 = 180^0 - 130^0$ $y = 50^0$ **Or** $y + 130^0 = 180^0$ $y + 130^0 - 130^0 = 180^0 - 130^0$ $y = 50^0$	M_1 M_1 A_1

QN	SOLUTIONS	
32	**Village to market** D = S x T D = 40km/hr x $1\frac{1}{2}$ hr D = 40km/hr x $\frac{3}{2}$ hr D = 60km **Market to town** D = S x T D = 40km/hr x 1hr D = 40km	B_1
	Return $T = \frac{D}{S} = \frac{100km}{50km/hr} = 2hrs$	B_1
	Village to market D = 60km T = $1\frac{1}{2}$hr **Resting** 30min or $\frac{1}{2}$hr	
	Market to town D = 40km T = 1hr **Resting** 1hr **Returning** D = 100km T = 2 hrs	
		S_1 S_1
	END	