THE REAL PRIVATE TEACHERS' VOICE EXAMINATIONS BOARD

THE REAL NEXT TO PRIMARY LEAVING EXAMINATIONS

THE REAL SPECIAL MOCK TRIAL SET TWO - 2023

MATHEMATICS

Time allowed: 2 Hours 30 Minutes

Index no:

Random No						Personal No		

Candidate's name: ……………………………………………………………

Candidate's signature: ……………………………………………………………

School: ……………………………………………….………………….

District: …………………………………………………………………….

Read the following instructions carefully

1. This paper is made up of 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 in both sections **A** and **B**.
5. All answers **MUST** be written in the space provided In blue or black ball point pens or ink. All diagrams Should be in pencil.
6. Unnecessary crossing of answers will lead to loss of Marks.
7. Poor hand writing which cannot be easily read, May lead to loss of marks.

FOR EXAMINERS' USE ONLY		
Qn.No	**MARKS**	**SIGN**
1–10		
11–20		
21–22		
23–24		
25–26		
27–28		
29 – 30		
31 - 32		
TOTAL		

The Real Private Teachers' Voice Examinations Board 2023.

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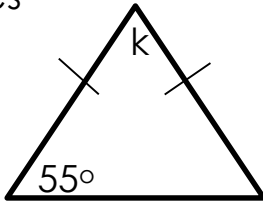
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SECTION A (40 MARKS

1. Work out 136 + 64

2. Write XCIV in Hindu Arabic numerals.

3. Simplify 9x + 5y – 4x – 4y

4. Write 11001 in words.

5. Simplify $2\frac{1}{4} \div 1\frac{1}{2}$

6. Change 11_{ten} to binary base.

7. The cost of 4 pencils Shs1,600. How many pencils can Amos get with Shs2,800**?**

8. Use distributive property to work out $(0.4 \times 27) + (73 \times 0.4)$

10. Write 47,800 in scientific form.

9. Find the next two numbers in the sequence 1,8,27,64, _____ , _____

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11. Calculate the value of **K** in degrees

.

12. Given that; A = {2,3,5,7,}

   B= {1,2,3,4,5,6}

   Find n(AnB)

13. Express Shs400 a percentage of Shs1,600

14. Given that a = 7. Find the value of $a^2 + a^\circ$

15. Find the square root of 289.

17. Simplify -4 + $^+7$

16. Mr. Bujingo deposited Shs1,500,000 in a bank that offers a simple interest rate of 4% P.a. How much was Bujingo's interest after a period of 8 months**?**

18. The probability of picking a red apple from a tray of 30 apples is 0.4. How many green are there if it is a mixture of only green and red apples**?**
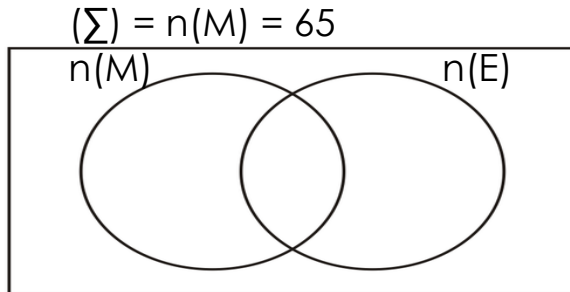
19. Given that F_k = {$2_1,2_2,2_3,3_1$}. Find the value of k.

20. A health parade in Kitebi P/S lasts for 40 minutes and ends at 9:30am. At what time does it start**?**

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SECTION B (60 Marks)

21. In a class of 65 pupils, all of them like mathematics (m) 28 like (E) and mathematics, 38 like SST(S) and mathematics and P like all the three subjects while 7 like mathematics only.

a). Represent the above information in a venn diagram below. (2mk)

$(\Sigma) = n(M) = 65$

n(M)   n(E)

(a). How many pupils like all the three subjects? (3mks)

(b). If a pupil is picked at random, what is the probability of picking a pupil who likes only one subject? (3mks)

22.a) Simplify $\dfrac{0.25 \times 1.44}{1.2 \times 0.5}$ (2mks)

b) Work out $\left(\dfrac{1}{3} - \dfrac{1}{5}\right)$ of $\dfrac{5}{10} + \dfrac{1}{5}$ (3mks)

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23. Kampala is 100km from Jinja. A car takes 3 hours from Kampala to Jinja and 2 hours coming back. Calculate the average speed for the whole journey. (3mks)

24.a) Square tiles of 20cm each were laid on the floor of a room measuring 6m by 4m. Find the number of tiles needed to cover the floor. (4mks)

b). If a box of 25 tiles costs Shs30,000 find the total cost of tiles needed to cover the floor. (2mks)

25. Omara was given Shs42,000 for shopping. He bought the following items.
4 bars of washing soap at Shs3,000 per bar.
6 tablets of bathing soap at Shs2,500 per tablet.
2 tubes of tooth paste at Shs5,000 per tube.

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(a). How much money did he spend altogether**?** (3mks)
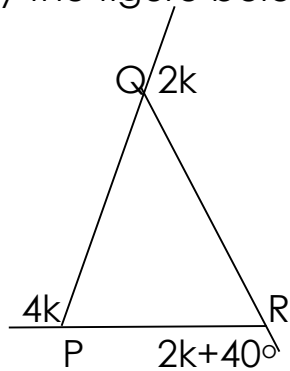
b). Find his change. (2mks)

26. Barbara is 20 years younger than Peter. In 15 years' time, Peter will be twice as old as Barbara. How old is Barbara**?** (5mks)

27. The sum of 3 consecutive odd numbers is 51. What are the three numbers**?** (4mks)

28. Tap A can fill the water tank in 3 minutes while tap B can fill the same tank in 6minutes. How long will both taps take to fill the same tank if they are both opened at the same time**?** (4mks)

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29. Study the figure below and answer the questions that follow.

Q 2k

a). Find the value of k in degrees. (3mks)
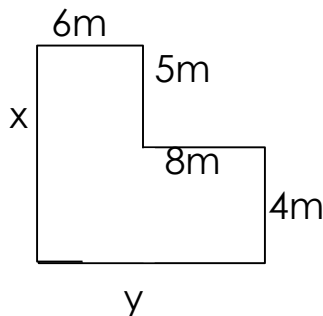
4k
P   2k+40°
R

b). Work out the size of angle PQR. (2mks)

30. Candidates scored the following marks in a certain exam.

Marks	40	W	60	80	90
candidates	3	2	1	3	1

a). How many candidates did the test?(1mk)

b). If the average mark is 61, find the value of W. (3mks)

31. Amanda has a garden of the shape shown below?

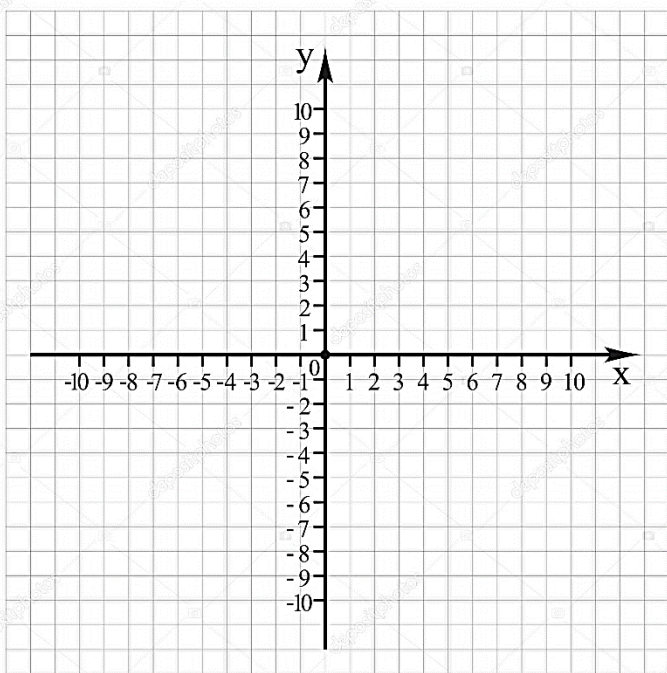6m   a). Find the value of x (1mk)

5m

x

8m   b). Find the value of y (1mk)

4m

y

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c). Find the area of the garden in square metres. (3mks)

32. a). Use the coordinate graph below to plot the following ordered co-rdinates.

A(-3,3) B(0,5) C(3,3) D(0,-4) (2mks)

(b). Join the points A to B, B to C, C to D and D to A and name the shape formed. (2mks)

(c). Work out the area of the figure formed in square units. (3mks)

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