

BUVUMA DISTRICT HEADTEACHER'S ASSOCIATION

JOINT MOCK PRIMARY LEAVING EXAMINATION 2024

MATHEMATICS

Time allowed 2 hours 30 minutes

Random No.					Personal No.				

Pupil's Name:

School Name:

District Name:

Read the following instructions carefully:

1. The paper has **two** sections: **A** and **B**
Section **A** has 20 short questions (40 marks)
Section **B** has 12 questions (60 marks)
2. Answer **ALL** questions. All answers to both Sections A and B must be written in the spaces provided.
3. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.
4. Unnecessary alteration 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 anything in the boxes indicated for Examiner's use only.

FOR EXAMINER'S USE ONLY

Pages	Mark	Sign
Page 2		
Page 3		
Page 4		
Page 5		
Page 6		
Page 7		
Page 8		

Teacher's comment to the learner.


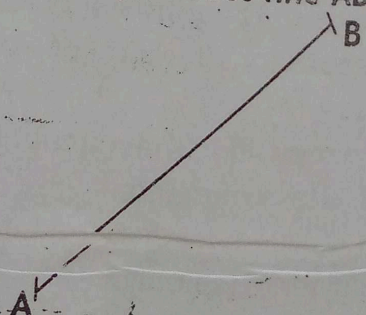
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SECTION .A. (40 Marks)

1. Multiply: $4 \times 3 =$	2. Set $P = \{0, 2, 4, 6, 8\}$ and $Q = \{1, 2, 4, 5, 6\}$. List the common members in both sets.
3. Find the square of $\frac{2}{5}$.	4. What is the place value of underlined digit in the number 70 <u>6</u> 2?
5. Musa bought 400 grams of maize flour and used 174 grams to prepare porridge. How much flour did he remain with?	6. Change XCVIII to Hindu Arabic numerals.
7. If  = 20 pupils, draw pictures to represent 80 pupils.	8. Using a pair of compasses, a ruler and a pencil only, bisect line AB below. 

... using powers of ten.

10.

Change 12:28 am to a 24 hour clock system.

11.

Tom's cow produces 13.5 litres of milk everyday. How many litres will it produce in a week?

12.

Simplify: $2xy^2 - 4pq + xy^2 + 6pq$

13.

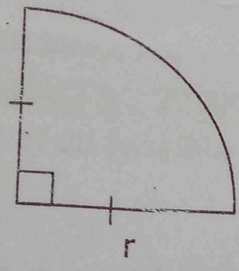
Express 164 in scientific notation.

14.

If $a = 2$ and $b = -3$, find the value of $a - 2b$.

15.

The perimeter of a quadrant is 50m. Find its radius.

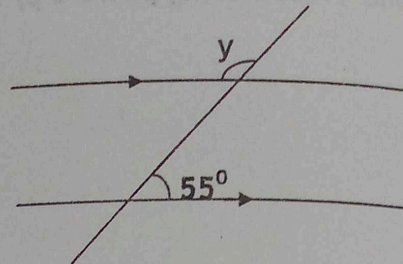


16.

In a box, there are blue pens and black pens. The probability of picking a black pen from the box is $\frac{2}{7}$. Find the probability of picking a blue pen.

17. Solve for k : $3k + 4 = 2 \pmod{5}$

18. Find the size of angle y .



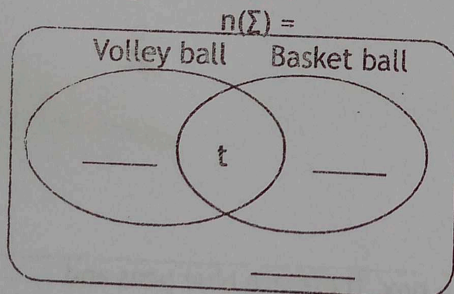
19. Show that 6042 is divisible by 6.

20. Round off 19.997 to the nearest hundredths.

SECTION .B. (60 Marks)

21. In a school of 80 boys, all play football, 40 play Volley ball and Football, 50 play basket ball and foot ball, 13 play Football only while some players play all the three games.

(a) Show the above information on a Venn diagram below.



(b) How many boys play all the three games?

(c) How many boys play at least two games?

(06 Marks)

The average of four consecutive even numbers is 15.
What are the even numbers?

(b) Work out the product of the smallest and largest even numbers above.

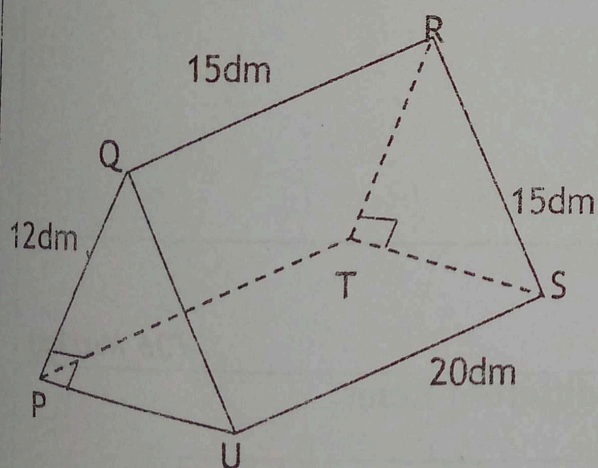
(06 Marks)

23. (a) Simplify: $\frac{4.8 \times 1.2}{0.03 \times 0.2}$

(b) Work out: $\frac{2}{5} \div \frac{2}{3} \div \frac{3}{9}$

(04 Marks)

24. The diagram below is a triangular prism. Use it to answer questions that follow.



(a) Find length of PU.

(b) Calculate the volume of the prism.

(04 Marks)

25. (a) Given that $6 < 4 - 2r \leq 12$, find the product of all possible values of r .

(b) Solve for d : $6 - 2d = 4$

(06 Mark)

26. (a) Work out:
$$\begin{array}{r} 96102 \\ -17349 \\ \hline \end{array}$$

(b) Multiply:
$$\begin{array}{r} 842 \\ \times 35 \\ \hline \end{array}$$

(04 Marks)

27. (a) Using a ruler, a pencil and a pair of compasses only, construct a triangle TRS such that TR = 6.5cm, angle TRS = 120° and line RS = 5cm. Drop a perpendicular line from S to meet line TR at X.

(b) Measure length SX.

(06 Marks)

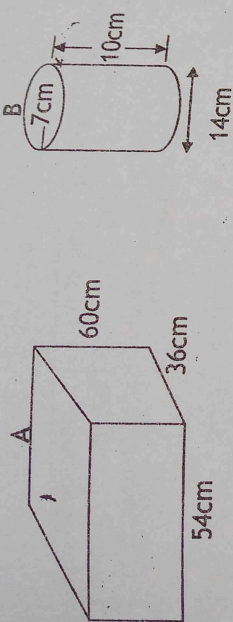
28. Below is a shopping table showing the price of different items.

Item	Quantity	Unit cost	Amount
Sugar	3kg	Sh. 4000	Sh.
Salt	500gm	Sh. 1600	Sh.
Cooking oillitres	Sh. 6000	Sh.
meat	2kg	Sh. 8000	Sh. 16000
Rice	1.5kg	Sh. 3600	Sh.

Complete the table above.

(04 Marks)

29. A factory packed cylindrical tins B of blue band into a rectangular box A as shown below?



(a)	How many tins can be packed in the first layer?	(b) Calculate the volume of the space left by packing all the cylindrical tins in the box.
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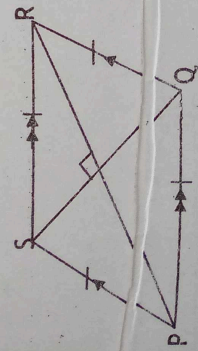
(05 Marks)

30. On a farm, 2.5% of the land is used for grazing animals, $\frac{2}{3}$ of the remainder for crop growing and the rest 36 hectares reserved for human settlement. Find the size of land in hectares.

(04 Marks)

31. The perimeter of a rhombus PQRS is 40cm the diagonal PR is 16cm. Use it to answer questions that follow.

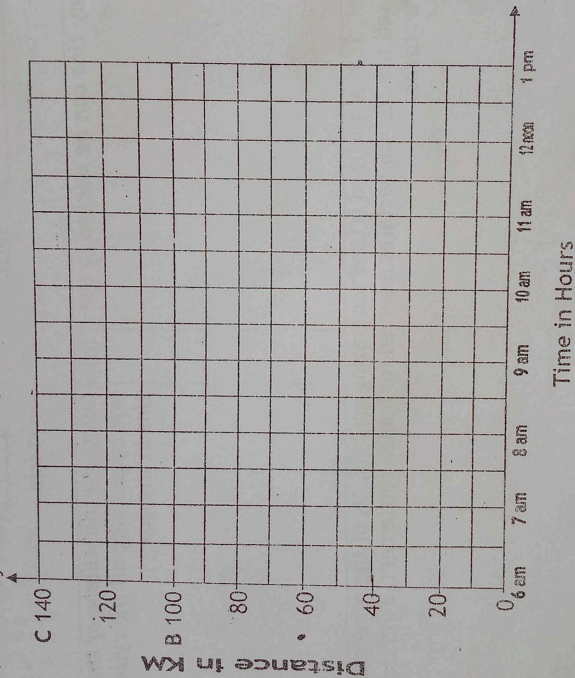
(a) Find the length of diagonal QS.



(b) Find the area of the rhombus PQRS.

(06 Mar)

32. A cyclist left town A at 6:00am travelling at a steady speed of 50km/hr in 2 hours town B. He stopped at town B for half an hour and continued to town C at a steady speed of 80km/hr for only 30 minutes. He again rested at town C for 1 hour then returned directly to town A at a speed of 70km/hr.



(a) Show the cyclist's journey on the graph above.	(b) At what time did the cyclist arrive at town C?
(c) Calculate the cyclist's average speed for the whole journey.	