EDUCATION SOURCE 2024
P.7 END OF TERM ONE EXAMINATION 2024
MATHEMATICS
Time Allowed: 2 hours 30 minutes

	Random No.	Personal No.
Index No:		

Candidate's name: ....

Candidate's signature: ....

District : ....

Read the following instructions carefully

For Examiner's use only	
A	
B	
TOTAL	

1. This paper has two Sections: A and B.

2. Section A has 20 answer questions (40 marks)

3. Section B has 12 questions (60 marks)

4. Answer ALL questions. Answers to both sections must be written in the spaces provided.

5. All answers must be written using blue ink. Diagrams should be drawn in pencil.

6. Unnecessary alteration of work may lead to loss of marks.

7. Any handwriting that cannot be easily read may lead to loss of marks.

8. Do not fill anything in the box indicated for examiner's use only.
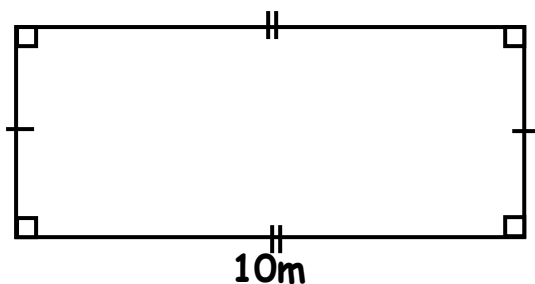
SECTION A:

1. Subtract 2 from 9

2. Write forty thousand four in figures.

3. Two exercise books cost sh.4800, find the cost of nine similar books.

4. Simplify: $11y - 15y + 7y$

5. An assembly started at fifteen minutes past seven in the morning and ended at fifteen minutes to nine in the morning. For how long was the assembly?

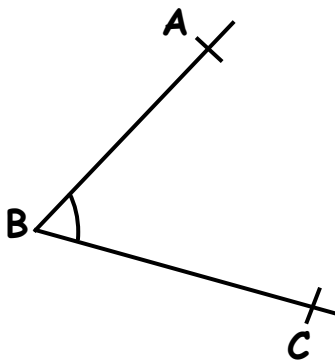6. The area of the rectangular flower garden below is 70m².

10m

Work out the total distance round it.

7. Given that RUT = {a, b, c, d, e, f},
   R∩T = {a, d} and R= {a, b, c, d},
   list all the members of set T.

8. If P² + 1 = 50, find the value of 2p.

9. Work out the value of 9 in 74.3592

10. The mean of a + 2, 3a, a - 1 and 2a is 16. Work out the value of a.

11. The GCF and the LCM of two numbers is 6 and 90 respectively. If one of the numbers is 30, find the second number.

12. A cyclist covered 54 kilometres in 3 hours. Find the speed of the cyclist in metres per second.

13. Using a ruler, a sharp pencil and a pair of compasses only, bisect the acute angle ABC marked below.

14. A school has a total population of 3500 students. The girls are $\frac{4}{7}$ of the total population. How many girls are in the school?

15. Mr.Kayoola had a bundle of five thousand shilling notes numbered consecutively from AX5609192 to AX5609291. Find the amount of money he had in total.

16. Change 32_{ten} to base five.

17. The diagram below shows the current cost of each litre of fuel at a fuel station.

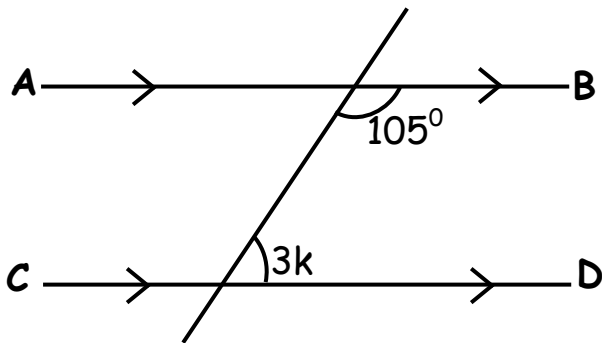| Diesel	Sh.4999
Petrol	Sh.5880
Kerosene	Sh.3550

The cost of petrol increased by 20%, calculate the price of petrol before it was increased.

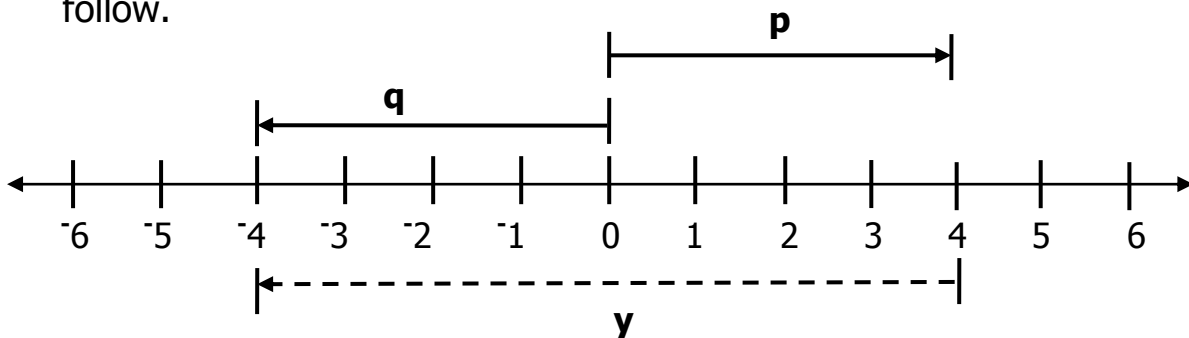18. Calculate the diameter of a circle whose circumference in 88dm.

19. Use a dial to work out 2 – 5 = _____ (mod 6)

20. In the figure below, line AB is parallel to line CD.
    Find the value of k.

SECTION B:

21. Below is a number line, study it carefully and answer the questions that
    follow.

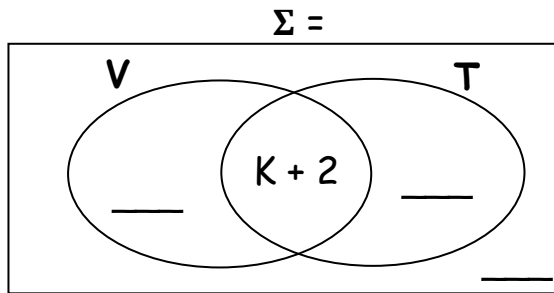(a) Write the integer represented by;   **(1 mark each)**

    i. q = _____   ii. y = _____   iii. p = _____

(b) Give the mathematical statement represented by the three integers.
(2 marks)

22. a) Add 897 to the "product of 89 and 40" **(2 marks)**

b) Mr. Opio collects eggs from his farm weekly and packs them in trays of 30 eggs each. Last week, he collected 21,000 eggs and sold each tray for sh.9500. How much money did he get altogether? **(3 marks)**

23. Given the numeral 478609,
a) expand it using powers of base ten. **(2 marks)**

b) write it in words. **(2 marks)**

c) find the sum of the value of 8 and the place value of 6. **(1 mark)**

24. In a group of players, 3k play Volley ball, k + 2 play both Volley ball and Tennis, 5k play only Tennis and k + 1 play neither of the two games.

a) Complete the Venn diagram below using the above information. **(3 marks)**

$\Sigma =$

V   T

(K + 2)

____   ____

____

b) Given that 19 players do not play Volley ball at all, find the value of k.

(2 marks)

25. A trader sold a radio to Martha for sh.220,000 making a profit of 10%. Martha later sold it to Paula at a loss of 20%.

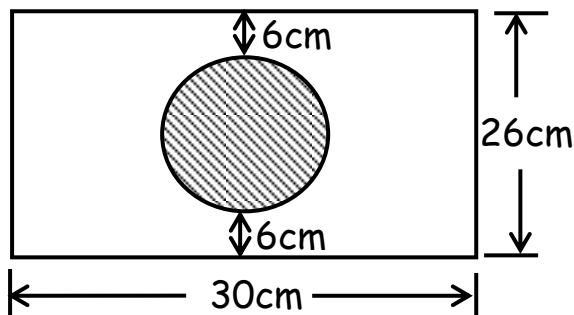a) Work out the trader's cost price of the radio. **(3 marks)**

b) How much did Paula pay for it? **(2 marks)**

26. At Omoro Primary School, two bells, one for lower and another for upper primary are rung at intervals of 30 minutes and 40 minutes respectively. If they rung together for the first time at 7:30a.m;

a) after how many minutes will they ring together again? **(2 marks)**

b) at what time will it be then? **(3 marks)**

27. A circular mat is centrally placed on a rectangular table top as shown in the figure below. Study and use it to answer the questions that follow.

a) Find the area of the circular mat. **(3 marks)**

b) Work out the area of the table not covered by the mat. **(2 marks)**

28. A hand bag costs 4 times the cost of a comb. The total cost of the two items is sh.15,000.

a) Find the cost of a comb. **(3 marks)**

b) How much money will two similar hand bags cost? **(2 marks)**

29. a) Using a ruler, a sharp pencil and a pair of compasses only, construct triangle WAR in which $\overline{\textbf{WA}}$ =8cm, $\angle$**AWR** = 45^0 and $\angle$WAR = 60^0. **(4 marks)**

b) Measure $\angle$**WRA** _____ **(1 marks)**

30. A Kenya Airways Aeroplane flies from Dar-es-salaam to Nairobi following the time table below. Study it carefully and answer the questions about it.

TOWN	DEPARTURE	ARRIVAL
Dar-es-salaam	09 40hours	
Mwanza	13 40hours	13 05hours
Entebbe	15 15hours	14 50hours
Kisumu	17 10hours	16 55hours
Nairobi		18 25hours

a) How long does the plane stop at Entebbe? **(2 marks)**

b) Find the arrival time of the plane at Nairobi on a 12hour clock. **(2 marks)**

c) Calculate the average speed of the plane if it covers a total distance of 840km for the entire journey. **(2 marks)**
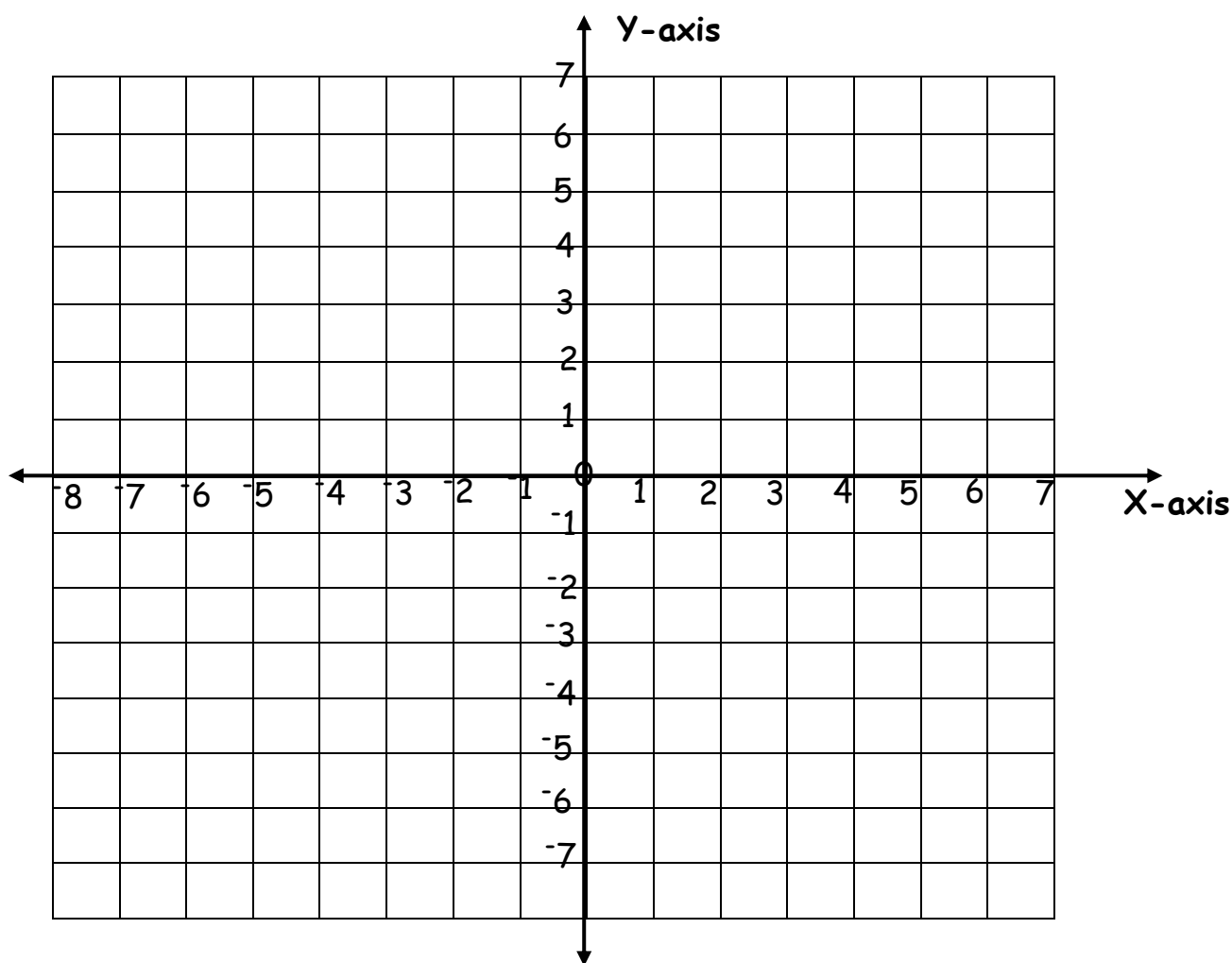
31. Below are exchange rates at Monex Forex Bureau.

1 US dollar ($)	Ug.sh.3600
1 Kenya shillings (K.sh)	Ug.sh.30
1 British pound sterling (£)	Ug.sh.4800

a) A tourist came to Uganda with 2500 US dollars. How much money did he get in Uganda shillings? **(2 marks)**

b) How many British pounds can one get from Ug.sh.2,400,000? **(2 marks)**

32. On the grid below, plot point **A** (¯3, 3), **B** (6, 3) **C** (4, ¯2), **D** (¯5, ¯2).
   (4 marks)

a) Join **A** to **B**, **B** to **C**, **C** to **D** and **D** to **A**. **(1 mark)**

b) Name the polygon formed. **(1 mark)**

************** **END** ****************