TARGETER WINGS
JUNIOR SCHOOL ASSESSMENT
GRADE 8 - 2024

Wings 004

TIME:1hour 40mins

MATHEMATICS

Name	_____
School	_____
Adm No:	_____ Date _____

Instructions:

(a) Write your name, school, admission number and date in the spaces provided above.

(b) Answer all questions in this question paper.

FOR EXAMINER'S USE ONLY

Questions	Maximum score	Student's score	Performance scale
1	1		
2	2		
3	2		
4	3		
5	2		
6	2		
7	2		
8	2		
9	2		
10	1		
11	2		
12	1		
13	1		
14	2		
15	2		
16	1		
17	2		
18	2		
19	1		
20	2		
21	2		
22	2		
23	3		
24	1		
25	2		
26	1		
27	2		
28	2		
Total	**50**		

MATHEMATICS GRADE. 8

1. Grade 8 learners from Muhimu junior secondary were carrying out experiment on temperature change of ice cubes when placed in a freezer. The original temperature was -7°C. The temperature fell by 8°C. Calculate the new temperature using a number line? (1 marks)

2. A charity walk was attended by 56798 women, 48790 men and children were half the number of adults. Write the total number of people who attended the charity walk in words. (2 marks)

3. Evaluate (2 marks)

$$\frac{\frac{3}{5} \div \frac{5}{6} \times \frac{5}{12}}{2\frac{3}{4} - 1\frac{1}{8}}$$
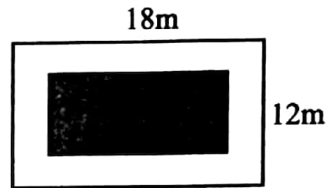
4. During a farewell ceremony. 0.3 of the people drank water, 0.5 of them drank orange juice while the rest took mango juice. If the number of people who took mango juice was 200. How many more people drank orange juice than water? (3 marks)

5. Express the following recurring decimal as a fraction in its simplest form. (2 marks)

$0.\overset{..}{4}\overset{.}{5}$

6. Mr. Jackson had a circular piece of land of diameter 42m. He decided to fence it round leaving a gate 2m long. If he used three strands of wire, what was the total length of the wire used? (2 marks)

7. The margin between the two shapes is 2m. Find the area of the shaded part. (2 marks)

18m

12m

8. The area of a square floor is 1296m². A contractor wants to fix square tiles measuring 9m to cover the whole floor. What will be the cost of the tiles used if the cost of one tile is sh.250? (2 marks)

9. Work out: (2 marks)

$$\frac{0.4 + 0.8 \times 1.6 - 0.28}{0.04}$$

10. Two athletes, Mumbi and Jane ran the same distance. Mumbi ran at a speed of 20m/s and Jane ran at a speed of 48km/h. What is the difference in their speed in km/h if they started at the same point and time? (1 mark)

11. A rectangular water tank holds 24 litres of water when full. If the base measures 24cm by 20cm. What is the height of the tank?

(2 marks)

12. A square carpet measures $2\frac{1}{2}$ m long. What is the area of the carpet in square metres?

(1 mark)

13. Arrange the following decimals in ascending order. (1 mark)

1.2334, 1.0334, 1.1403, 1.3234, 1.3334

14. A copper wire 225m long was cut into two parts in the ratio 6:9. What was the difference between the two parts. (2 mark)

15. Makena bought 240 oranges for sh. 1600. She arranged them in piles of four. She sold each pile of oranges for sh. 30. What was her percentage profit? (2 marks)

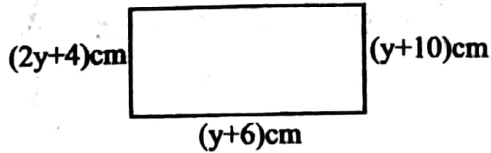16. The exterior angle of a regular polygon is 72°. Calculate the number of sides of the polygon.

(1 mark)

17. Using a pair of compasses and a ruler only. Construct a triangle XYZ such that XY=6cm, YZ=6cm and XZ=6cm. What is the measure of angle XYZ? (2 marks)

18. Mueni bought the following items in a supermarket:

3 packets of face masks @ sh.300
Three – 2kg packets of wheat flour @ sh. 160 per packet.
2kg of sugar for sh. 400
3 packets of tea leaves for 176
2 bar soaps @ sh. 145
2 packets of baking powder @ sh. 85

How much money did she pay altogether?

(2 marks)

19. Write the following simple linear inequality as a compound inequality. (1 mark)

$X > 5$ and $X < 12$

20. Mwaura's dairy cows produce an average of 400 litres of milk every day. Mwaura is working on a modern program to increase the production of milk by 25%. How much milk will the cows produce after the increase? (2 marks)

21. Find the area of the rectangle below. (2 marks)

$(2y+4)$cm ▭ $(y+10)$cm

$(y+6)$cm

22. A barber is paid 40% commission of the total amount of money paid by clients after a haircut. One day he shaved 15 clients and each paid sh. 300. How much commission did he get that day? (2 marks)

23. The following table shows the rainfall records of a certain town for one year.

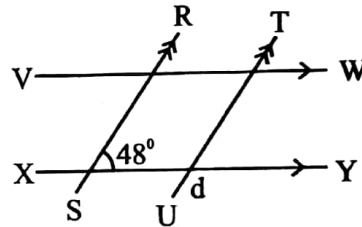| Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Rainfall(mm)	99	26	35	68	48	35	72	77	24	55	63	70

a) Which was the driest month? (1 mark)

b) Which was the wettest month? (1 mark)

c) Find the average rainfall received in the town for the whole year. (1 mark)

24. The area of a square field is 42.25m². Calculate the perimeter of the square. (1 mark)

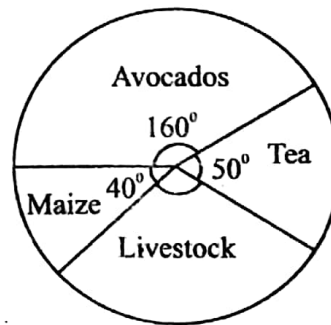**25.** Solve the following simultaneous equation. (2 marks)

$5m + 7n = 11$

$4m + 3n = 14$

26. Eighteen men can do a certain job in 20 hours. How long will it take 24 men to do the same job working at the same rate? (1 mark)

27. In the figure below line RS is parallel to TU and line VW is parallel to XY. What is the size of angle 'd'? (2 marks)

28. The pie chart below shows how Jacob uses his 108 hectares of land.

a) How many degrees represent livestock? (1 mark)

b) How many more hectares are used for livestock than tea? (1 mark)