TARGETER WINGS
JUNIOR SCHOOL ASSESSMENT
GRADE 8 - 2024

Wings 005

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	2		
2	1		
3	2		
4	2		
5	1		
6	2		
7	2		
8	2		
9	2		
10	2		
11	2		
12	2		
13	2		
14	2		
15	1		
16	2		
17	2		
18	2		
19	2		
20	2		
21	1		
22	2		
23	2		
24	4		
25	2		
26	2		
Total	**50**		

1. The temperature of ice cubes was -6^0C, it rose by 3^0C and later dropped by 4^0C. Calculate the current temperature of the ice cubes using a number line. (2 marks)

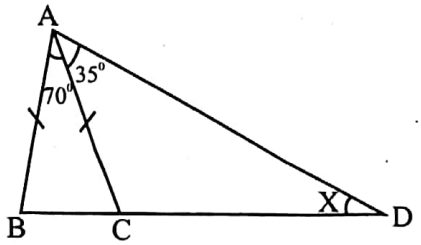
2. Write, Ninety million, nine thousand, two hundred and eight in symbols. (1 mark)

3. Wambua spent $\frac{3}{5}$ of his salary on food, $\frac{1}{3}$ on rent and $\frac{2}{7}$ of the reminder on school fees and saved the rest. If he saved Sh. 7400, how much money did he spend on food? (2 marks)

4. Work out: $\frac{0.84 \times 0.7}{0.6}$ (2 marks)

5. Find the square of 1.463 using the table of squares. (1 mark)

6. What is the value of angle X in the figure below? (2 marks)



7. Work out: $\sqrt{7\frac{1}{9} \times \frac{2}{3}}$ (2 marks)

8. Mr. Johnson has a circular pond of diameter 42m. He used four strands of wire to fence it. Calculate the total length of wire used. $\left(\pi = \frac{22}{7}\right)$ (2 marks)

9. The ratio of boys to girls in Muraru primary school is 5:3. If there are 360 more boys than girls, find the number of girls in the school. (2 marks)

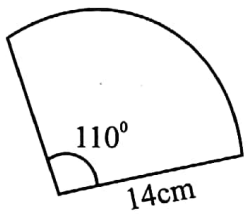
10. During a pre-technical lesson, grade 8 learners were asked by their teacher to cut a circular metallic wheel of diameter 14cm from a square metallic sheet measuring 18cm. Calculate the area of the metal sheet that remained. $\left(\pi = \frac{22}{7}\right)$ (2 marks)

11. Simplify the following algebraic expression by factorizing. (2 marks)

$$\frac{4p - 12}{p^2 - 3}$$

12. The government announced a rise in petrol and diesel. Therefore, matatu operators from Nairobi to Nakuru raised fare by 20%. What is the new fare if the old fare was Sh. 1500? (2 marks)

13. An arc subtends an angle of 110^0 at the centre of a circle as shown below. What is the length of the arc if the radius of the circle is 14cm? (Take $\left(\pi = \frac{22}{7}\right)$ (2 marks)



14. A cylindrical open water tank has a diameter of 42cm and a height of 25cm. Find the surface area of the water tank. (Take $\left(\pi = \frac{22}{7}\right)$ (2 marks)

15. The temperature of pure water in a container was 26^0C. The container was placed on fire until the water boiled. What was the rise in temperature? (1 mark)

16. Twelve men working at the same rate can finish the construction of a house in 4 days. How long will it take eight men to do the same job? (2 marks)

17. If p = 5, q = 2 and r = p - q. Find the value of: $\frac{P+Q}{R} + 3P$ (2 marks)

18. Jackline bought the following items:
4 ruled exercise books @ sh.60,
2 bunches of spinach @ sh.30,
3 cabbages for sh. 120,
Four-2kg packets of wheat flour @ sh. 160 per packet.
If she paid using two- one-thousand-shilling notes, how much balance did she receive? (2 marks)

19. The table below shows part of the postal charges for sending parcels across the world.

Mass(kgs)	East Africa	Rest of Africa	Europe	Middle East	Rest of the world
2	3400	4335	5215	5453	5685
2.5	3785	4698	5723	5760	6567
3	4124	5150	6156	6512	7168
3.5	4368	5476	6798	7120	8167
4	4874	5823	7265	7700	8796

Njeri sent the following parcels.
a) Parcel of mass 3.5kg to rest of the world
b) Parcel of mass 2.5kg to Europe
c) Parcel of mass 4kg to Rest of Africa.
How much did she pay for the parcels altogether? (2 marks)

20. The marked price of soccer boots was sh. 3500. Jeremy paid sh. 2800 after a discount. What was the percentage discount? (2 marks)

21. A motorist left town K for town L at 8:30 a.m. He travelled at an average speed of 60km/hr. If he reached town L at 10:00 a.m., how far is town L from K? (1 marks)

22. Muliro Primary School has 560 pupils. During a prize-giving day, each learner was given a 25ml packet of orange juice and a 10ml packet of mango juice. How many litres of juice were given altogether? (2 marks)

23. Mary and Maureen left school at nine o'clock to go to the market. Mary cycled 32km to the West while Maureen cycled 24km to the North. What was the direct distance between the two learners? (2 marks)

24. There are two numbers. When the second number is subtracted from twice the first number, the result is 18. When 9 is added to the first number, the result is equal to twice the second number.

a). Using X as the first number and Y as the second number, write down a pair of simultaneous equations. (2 marks)

b). Find the values of X and Y. (2 marks)

25. Mrs. Mwaura bought a square mat of area $50.41cm^2$. Calculate the perimeter of the square mat in metres. (2 marks)

26. Using a pair of compasses and a ruler only, construct triangle XYZ in which XY=6cm, YZ=7cm and XZ = 5cm. Use a protractor to find the measure of angle ZYX. (2 marks)