

**UNIOR SECONDARY SCHOOL ASSESSMENT
MONITORING LEARNER'S PROGRESS**

GRADE 8 – 004

MATHEMATICS – SECTION A

Name _____

Learner's Number

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Gender:

Boy

☐

Girl

☐

School Name _____

SECTION A:

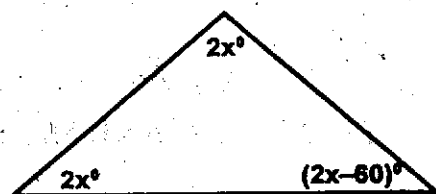
1. Write four hundred and twenty five million, three hundred and eight thousand, two hundred and forty nine in symbols.
A. 425,380,249 B. 425,308,249 C. 420,308,269 D. 452,308,249
2. Three girls went to the market to buy fruits. The first one bought k fruits and the second one bought $k + 2$ fruits, the third bought $k - 3$ fruits. What is the total number of fruits bought altogether?
A. $2k - 1$ B. $3k + 5$ C. $3k + 1$ D. $3k - 1$
3. The temperature of heated water was 97°C . What was the temperature of the water in Kelvin?
A. 360 B. 370 C. 300 D. 380
4. A square farm has an area of 196cm^2 . What is the size of the side of the farm?
A. 196cm^2 B. 14cm^2 C. 196cm D. 14cm
5. Grade 8 learners listed the following numbers $8.5\frac{1}{2} - 6.0$. Which one is not an integer?
A. 8 B. -6 C. 0 D. $5\frac{1}{2}$
6. Convert 0.085L to cm^3 .
A. 850cm^3 B. 8.5cm^3 C. 85cm^3 D. 85000cm^3
7. The price of an item in a shop was Ksh. 1200. The shop offered 10% discount. Which calculation shows the new price?
A. 1200×0.9 B. Sh. 1200×1.1 C. Sh. $1200 \div 0.9$ D. $1200 \div 1.1$
8. Round off 28,925,312 to the nearest million.
A. 29,000,000 B. 28,000,000 C. 28,900,000 D. 2,900,000
9. Angel sold a chrome book for Ksh. 18,220. She made a loss of 1,269. How much did she buy the chrome book for?
A. 16,915 B. 19,489 C. 16,951 D. 19,498
10. A regular polygon has 5 sides. What is the size of each exterior angle?
A. 360° B. 72° C. 54° D. 180°

11. The population of girls in Baraka comprehensive school was 24367298. What was the place value of 6?
 A. Thousands B. Hundreds of thousands C. ten thousands D. millions
12. What is the next number in the sequence? 4, 9, 25, 49, 121, 169, ____
 A. 144 B. 225 C. 256 D. 289
13. Work out: $10.64 \div 0.16$
 A. 66.5 B. 665 C. 10.64 D. 16
14. The length of a string was 20m and 30cm. What was the length in cm?
 A. 2020 B. 230 C. 20300 D. 23
15. Use a calculator to find the square of 16,205
 A. 262,602,250 B. 262,600,025 C. 262,602,025 D. 202,602,025
16. The fraction of an orange was $1\frac{3}{8}$. What was its reciprocal?
 A. $\frac{11}{8}$ B. $\frac{8}{3}$ C. $\frac{3}{8}$ D. $\frac{8}{11}$
17. The distance between two towns is 120,000 km. What is its distance in standard form?
 A. 120,000 km² B. 120×10^3 km² C. 1.2×10^5 km D. 1.2×10^4 km
18. Round off 0.000428 correct to 1 significant figure.
 A. 0.00004 B. 0.004 C. 0.00043 D. 0.0004
19. Four men take six days to paint a wall. How many days will two men take to paint the same wall?
 A. 3 B. 6 C. 12 D. 2
20. The length of a field is $(6x - 4)$ cm. Which of the following expressions simplify the length?
 A. $2(3x - 2)$ cm B. $(3x - 2)$ cm C. $-2(3x + 2)$ D. $6x - 4)$ cm

SECTION B

21. A teacher wrote the numbers from 0 to 10 on number cards and asked grade 8 learners to select a card at random.
 a) List any three number cards that had a prime number. (3 mks)
 i) _____ ii) _____
 iii) _____
22. Work out the following: $\frac{1}{2} (\frac{1}{5} + \frac{1}{3}) \times 1\frac{1}{2} \div 3 + \frac{3}{4} \times \frac{1}{2}$ (3 mks)

23. The interior angles of a triangle are shown below.



- a) Find the value of x (3 mks)

- b) Which angle is the biggest? (2 mks)

24. A fisherman on a boat saw a fish at a depth of 7m in the water. He also noticed a bird, vertically above the fish at a height of 12m from the water surface. Using a number line,

determine the distance between the fish and the bird. (3 mks)

25. Jane bought the following items from a shop: (3 mks)

- Two (2) kg packets of flour for Sh. 400
- 2 kg of sugar for Kshs. 250
- 3 packets of milk @ Kshs. 60

If she paid for the items using a one thousand shilling note, what balanced did she get?

26. Jonathan's water tank is 27m long 12m wide and 5m high.

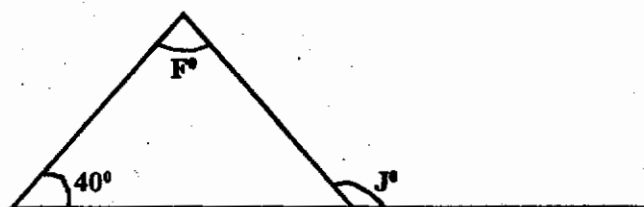
a) What is the volume of the tank? (2 mks)

b) What is the volume of the tank in litres? (2 mks)

27. Grade eight learners bought the following fruits; 15 oranges 25 bananas, 30 pineapples, 10 apples and 20 avodacos. If they represented the information on a pie chart, what angle represented the number of bananas? (3 mks)

28. The diagram below represents a triangle. Find the value of the angle marked F° and J° .

(4 mks)



F° _____

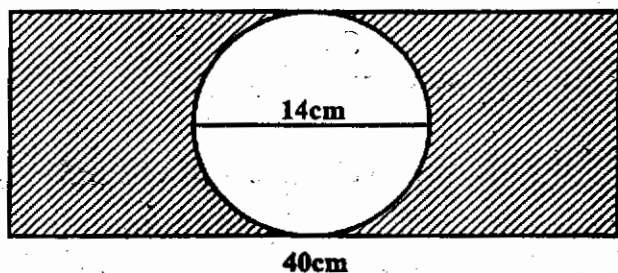
J° _____

29. A community was given 18 sheep, 12 cows and 36 goats by an agriculture co-operative. Find the least member of the community that can share the animals equally without a remainder.

(3 mks)

30. Hillary bought a house at Ksh. 3,728,950. What is the difference between the total value of digit 7 and 8? (3 mks)

31. Calculate the area of the shaded part. (4 mks)



32. A carpenter designed a coffee table with a triangular table top. The triangle ABC was such that $AB = 5\text{cm}$, $BC = 4\text{cm}$ and $AC = 7\text{cm}$

a) Using a ruler and a pair of compasses only, construct triangle ABC. (3 mks)

b) Measure the size of angle ABC. (1 mk)

33. The height of a tree seedling was estimated to be 0.342 during transplanting. Convert its height to fraction. (3 mks)

34. The cost of three pens and four books is Kshs. 460. If the cost of two pens and two books is Ksh. 240

a) Form a simultaneous equation to represent this information. (1 mk)

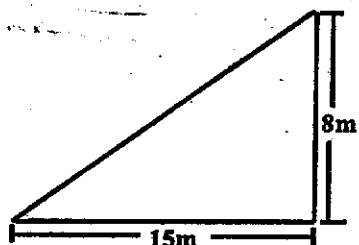
b) Find the cost of a book and a pen. (4 mks)

35. Evaluate $0.17 \times 10.5 + 0.32$

$$4.5 \times 0.08 - 0.089$$

give your answer to 2 significant figures (5 mks)

36. A builder used a ladder to take materials to the top of a building 15cm high. The distance between the foot of the wall is 8cm. What is the length of the ladder? (3 mks)



37. A vehicle took 30 seconds to reach its destination which was 1000m away. What was the speed in km/hr? (3 mks)

38. Hellen spend $\frac{1}{4}$ of her salary on school fees. She spent $\frac{1}{4}$ on electricity and water bills. She spend $\frac{1}{5}$ on transport. If she finally had Kshs. 12,000, calculate:

a) Her net salary _____ (3 mks)

b) Money spent on school fees. _____ (2 mks)

39. The length of a square floor mat is 0.0345m

a) Find the perimeter of the mat. (2 mks)

b) Using Mathematical tables, find the area of the floor mat. (3 mks)

40. In a wedding party, the number of men, women and children were in the ratio 2:3:5 respectively. If 50 women attended the wedding;

a) How many children attended the wedding? (2 mks)

b) How many more children than men attended the wedding? (3 mks)