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KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT



MID-TERM II 2025 EXAM GRADE 9 - MATHEMATICS - 903

Time: 2 hours

NAME: _____

SCHOOL: _____

STREAM: _____ DATE: _____

INSTRUCTIONS

- Write your name, school, stream and date in the spaces provided above.
- Answer **ALL** questions in this booklet.
- All answers must be given as per the guidelines of the questions.
- This question paper consists of **TWO** sections: **A** and **B**.
- Answer **ALL** the questions in section A in the table below.
- Answer **ALL** the questions in section B by working out in the spaces provided after each question.
- Show all the workings in section B in the spaces provided.
- Non-programmable calculators may be used, except where stated otherwise.
- Give non-exact numerical answers, correct to 3 significant figures and one decimal place for angles in degrees, unless a different level of accuracy is specified in the question.
- For π , use either the calculator value or 3.142.

ANSWER SHEET - SECTION A

| | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. | 13. | 14. | 15. | 16. | 17. | 18. | 19. | 20 |
| | | | | | | | | | | | | | | | | | | | |

LEARNER'S SCORE

| SCORES | | TOTAL |
|---------------|--|-------|
| A (Out of 20) | | |
| B (Out of 80) | | |

This paper consists of 10 printed pages. Candidates should check the question paper to confirm that all pages are printed as indicated and that no questions are missing.

L'avenir commence ici

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SECTION A (20 marks)

Write your answers in the table provided on the first page.

WORKING SPACE

1. Work out:
 $(+3) - (-4) + (-7)$
 A. -8 B. 0 C. +10 D. -4
2. Evaluate:
 $(-44) + (-31) + (-8)$
 A. -83 B. -65 C. -77 D. -52
3. A submarine was at 200 meters below sea level. It ascended 150 meters, then descended 90 meters. What is its current depth?
 A. -140 meters C. -110 meters
 B. -160 meters D. -50 meters
4. Using a calculator, find the cube of 8.999.
 A. 729 B. 739.5 C. 717 D. 728.74
5. 125 is equivalent to:
 A. 5^1 B. 5^2 C. 5^5 D. 5^3
6. The distance between Earth and Saturn is 1 000 000 000 km. Find the common algorithm of the distance.
 A. 8 B. 9 C. 10 D. 7
7. Express $\frac{3}{5}$ as a ratio.
 A. 3:5 B. 5:3 C. 3:2 D. 5:8
8. The number 2, n, 50 and 100 are in a compound proportion. Find the value of n.
 A. 5 B. 2 C. 4 D. 6
9. Kamulu School prepares their meal by mixing maize and beans in the ratio of 4:1 while Sabatia School prepares their meal by mixing maize and beans in the ratio of 9:5. Determine the school with the lower ratio.
 A. Kamulu School C. Both schools
 B. Sabatia School D. None
10. Find $X - Y$:
 $X = \begin{pmatrix} 5 \\ 2 \\ 3 \end{pmatrix}$ and $Y = \begin{pmatrix} 5 \\ 1 \\ 4 \end{pmatrix}$
 A. $\begin{pmatrix} 0 \\ 1 \\ -1 \end{pmatrix}$ B. $\begin{pmatrix} 10 \\ 3 \\ 7 \end{pmatrix}$ C. $\begin{pmatrix} -5 \\ -3 \\ -7 \end{pmatrix}$ D. $\begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}$

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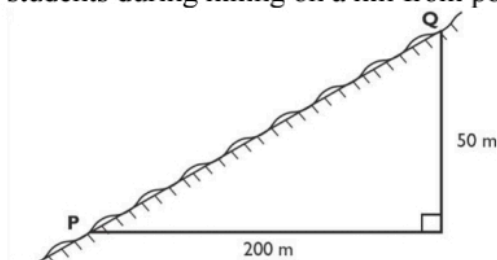
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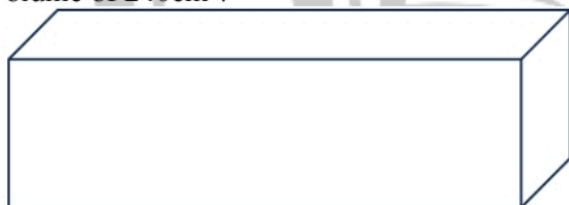
WORKING SPACE

11. The diagram below shows the path covered by students during hiking on a hill from point P to Q.



Find the gradient of PQ.

- A. 0.25 B. 0.2 C. 0.3 D. 0.35
12. Find the surface area of a cone with a base diameter of 28cm and slant height of 10cm.
A. 980.24 cm² C. 880.50 cm²
B. 1055.04 cm² D. 1100.00 cm²
13. Estimate the length of your school flag post.
A. 6 cm B. 60 m C. 60 cm D. 6 m
14. A dictionary weighs 900g. What is the mass in mg?
A. 900 000 mg C. 9 000 mg
B. 90 000 mg D. 900 mg
15. The block below measures 600g and has a volume of 240cm³.



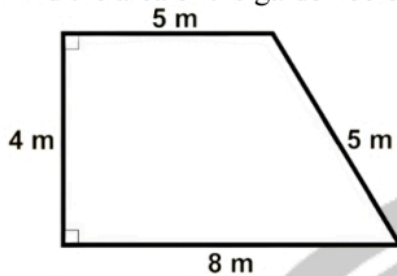
Calculate its density.

- A. 1.5 g/cm³ C. 3.5 g/cm³
B. 2.0 g/cm³ D. 2.5 g/cm³
16. Angela drives her car through a distance of 500 m in 4 seconds. Calculate the velocity of her car.
A. 124 m/s C. 2000 m/s
B. 100 m/s D. 4500 m/s
17. The local time in Tunis, 10° west is 10:15 am. Calculate the local time in Nairobi, 36° east.
A. 12:00 pm C. 1:19 pm
B. 1:15 pm D. 2:15 pm
18. Elvin has sh x and Anyango has four times as much money as Elvin. Johnte has sh 7 less than

Anyango. How much money do they have altogether?

- A. sh $(5x - 7)$ C. sh $(9x - 7)$
B. sh $(6x - 7)$ D. sh $(9x + 7)$

19. Find the area of the garden below.



- A. 20 m^2 B. 26 m^2 C. 32 m^2 D. 13 m^2

20. Find value of x:

$$2x - 3 > 2$$

- A. 2 B. 2.5 C. 3 D. 1

SECTION B (80 marks)

Work out in the spaces provided after each question

21. Using the factor method, determine the cube root of the following numbers.

a) 27

(2 marks)

b) 3375

(3 marks)

c) 9261

(4 marks)