PaperSetter Sample School

Grade 9 Mathematics

GRADE 9 — 2026

KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT

Candidate's Name		**Assessment Number**	
School Name		**School Code**	
Candidate's Signature		**Date**	

MATHEMATICS

Grade 9

Time: 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and assessment number in the spaces provided above.
2. Write the name and code of your school in the spaces provided above.
3. Sign and write the date of the assessment in the spaces provided above.
4. This paper may consist of multiple sections.
5. Answer questions as instructed on the paper.
6. Do all the necessary rough work on the question paper.
7. Do not remove any page from this question paper.

STRANDS AND SUBSTRANDS TESTED

Strand	Substrands Tested
Numbers	Fractions, Integers, Cubes & Cube Roots, Compound Proportions, Decimals, Squares & Square Roots
Algebra	Linear Equations, Linear Inequalities, Matrices
Measurement	Volume & Capacity, Time, Speed & Distance, Circles, Trigonometry
Geometry	Angles, Geometrical Constructions, Coordinate Geometry, Similarity & Enlargement, Coordinates & Graphs, Scale Drawing, Common Solids
Data Handling	Probability, Data Representation
Statistics	Measures of Central Tendency

Section A: 30 marks | **Section B: 20 marks** | **TOTAL: 50 marks**

Candidate's Score: **Sec A:** ☐ **Sec B:** ☐ **Total:** ☐ **/ 50**

Fill candidate's score per section; Teacher to sum and write total

TEACHER ASSESSMENT OF LEARNER PERFORMANCE

Tick (✓) the appropriate box based on learner's overall performance:

Below Expectation (BE)	Approaching Expectation (AE)	Meeting Expectation (ME)	Exceeding Expectation (EE)
☐	☐	☐	☐

SECTION A

1. Evaluate: $\frac{2}{3} + \frac{3}{4} - \frac{1}{6}$

A. $\frac{5}{4}$

B. $\frac{7}{12}$

C. $\frac{3}{4}$

D. $1\ \frac{1}{4}$

2. Solve: $\frac{x}{3} + 5 = 9$

A. 12

B. 42

C. 4

D. 2

3. Which value does NOT satisfy $2x + 1 < 9$?

A. 4

B. 3

C. 2

D. 0

4. The volume of a cube is 343 cm³. What is the side?

A. 7 cm

B. 49 cm

C. 14 cm

D. 12 cm

5. How long to cover 150 km at 60 km/h?

A. 2 hrs 30 min

B. 3 hrs

C. 2 hrs

D. 2 hrs 15 min

6. The sum of interior angles of a pentagon is:

A. 540°

B. 360°

C. 720°

D. 180°

7. The perpendicular from a point to a line gives the:

A. Shortest distance

B. Longest distance

C. Diagonal distance

D. Parallel distance

8. 36 ÷ (−4) = ___

A. −9

B. 9

C. −12

D. 12

9. What is $\sqrt[3]{216}$?

A. 6

B. 7

C. 8

D. 9

10. A car travels 240 km in 4 hours. How far does it travel in 7 hours at the same speed?

A. 420 km

B. 400 km

C. 350 km

D. 500 km

11. Solve: 2x + 5 = 13

A. 4

B. 9

C. 3

D. 8

12. Solve: −2x > 8

A. x < −4

B. x > −4

C. x < 4

D. x > 4

13. The distance between (1, 2) and (4, 6) is ___

A. 5

B. 7

C. 3

D. 4

14. Two similar triangles have areas 16 cm² and 100 cm². The ratio of their corresponding sides is ___

A. 2:5

B. 4:10

C. 16:100

D. 1:6

15. Data: 12, 15, 11, 17, 13. What is the median?

A. 13

B. 12

C. 15

D. 14

16. A bag contains 5 red beads, 3 blue beads and 4 green beads. One bead is picked at random. What is the probability that it is green?

A. $\frac{1}{12}$

B. $\frac{1}{2}$

C. $\frac{1}{4}$

D. $\frac{1}{3}$

17. A submarine is at -250 m. It rises 90 m, then descends 40 m. What is its new depth?

A. -200 m

B. -380 m

C. -120 m

D. -300 m

18. Work out: 25.6 - 7.85

A. 17.75

B. 18.75

C. 17.85

D. 18.25

19. Find: $\sqrt{\frac{1}{16}}$

A. $\frac{1}{8}$

B. $\frac{1}{16}$

C. $\frac{1}{4}$

D. $\frac{1}{2}$

20. Solve: $2x + 7 = 3x - 4$

A. 3

B. 11

C. 1

D. -11

21. The circumference of a circle is 88 cm. Find its radius. (Take pi = 22/7)

A. 28 cm

B. 44 cm

C. 7 cm

D. 14 cm

22. Find the size of each interior angle of an equilateral triangle.

A. 90 degrees

B. 60 degrees

C. 45 degrees

D. 120 degrees

23. In which quadrant does the point (-4, -1) lie?

A. Third quadrant

B. Second quadrant

C. Fourth quadrant

D. First quadrant

24. A scale of 1:200 means 1 cm represents what actual length?

A. 20 m

B. 2 m

C. 200 m

D. 0.2 m

25. Find the volume of a cylinder of radius 7 cm and height 10 cm. (Take pi = 22/7)

A. 1540 cm^3

B. 154 cm^3

C. 220 cm^3

D. 3080 cm^3

26. The sum of exterior angles of any polygon is:

A. 360°

B. 180°

C. 540°

D. 720°

27. Evaluate $\sqrt[3]{4913}$.

A. 13

B. 17

C. 19

D. 23

28. State the integer values of x in: $-1 \le x \le 4$.

A. −1, 0, 1, 2, 3, 4

B. 0, 1, 2, 3

C. −1, 0, 1, 2, 3

D. 0, 1, 2, 3, 4

29. Round 3.04967 to three significant figures.

A. 3.04

B. 3.06

C. 3.049

D. 3.05

30. A scale is 1:500. How is a wall 15 m long drawn on the plan?

A. 30 cm

B. 7500 cm

C. 3 cm

D. 0.3 cm

SECTION B

31. A cylindrical tank has diameter 1.4 m and height 2 m. Find its capacity in litres. (Use $\pi = \frac{22}{7}$, 1 m³ = 1,000 L)

(4 marks)

32. Draw a pie chart for: Football=120, Netball=80, Athletics=40, Swimming=60. (Total = 300)

Calculate the angle for each sport.

(4 marks)

33. The marks of 10 students are: 45, 67, 52, 78, 60, 72, 55, 83, 48, 70. Find the mean and median.

(4 marks)

34. If A = $\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$ and B = $\begin{bmatrix} 2 & 0 \\ 1 & 3 \end{bmatrix}$, compute A + B and A − B.

(4 marks)

35. In triangle PQR, P = 90°, PR = 5 cm, and angle Q = 30°. Find QR and PQ.

(4 marks)