

GRADE 9 | 2024

Grade 9 Mathematics Practice Exam

Mathematics

CAPS ALIGNED

GRADE 9 MATHEMATICS PRACTICE EXAMINATION

Time: 2 hours

Marks: 100

INSTRUCTIONS:

- Answer ALL questions.
- Show ALL working for full marks.
- Write neatly and clearly in the spaces provided.

QUESTION 1: ALGEBRA**1.1 (9 marks)**Factorise completely: (a) $6x^2 - 9x$ (b) $x^2 - 16$ (c) $x^2 + 5x + 6$ **1.2 (6 marks)**Solve for x: (a) $2x^2 - 8 = 0$ (b) $x^2 + 2x - 15 = 0$ **1.3 (3 marks)**Simplify: $(x^2 - 4) / (x + 2)$ **QUESTION 2: EQUATIONS AND SIMULTANEOUS EQUATIONS****2.1 (4 marks)**Solve: $3(2x - 1) - 2(x + 4) = 5$ **2.2 (5 marks)**Solve simultaneously: $2x - y = 5$ and $x + y = 7$

2.3 (5 marks)

Solve the inequality: $-3x + 6 > 18$. Show your answer on a number line.

QUESTION 3: FUNCTIONS AND GRAPHS**3.1 (5 marks)**

For the function $y = 2x - 4$:

- (a) Determine the x-intercept and y-intercept.
- (b) Sketch the graph.

3.2 (5 marks)

Given $y = -x^2 + 4$:

- (a) State the turning point.
- (b) Give the x-intercepts.
- (c) Describe the shape of the graph.

QUESTION 4: FINANCE AND DATA**4.1 (5 marks)**

R10000 is invested at 9% per annum compound interest for 3 years. Calculate the amount after 3 years.

4.2 (8 marks)

A data set: 12, 18, 7, 24, 11, 18, 9, 15, 22

Determine: (a) Mean (b) Median (c) IQR using a five-number summary
