

GRADE 9 MATHEMATICS EXAMS - JUNE 2023

<p style="text-align: center;">Paper 1</p> <p style="text-align: center;">Friday, 9 June 2023</p> <p style="text-align: center;">100 Marks, 1¾ hours</p> <p style="text-align: center;">[SET BY MISS BROCK]</p>	<p style="text-align: center;">Paper 2</p> <p style="text-align: center;">Tuesday, 13 June 2023</p> <p style="text-align: center;">100 Marks, 1¾ hours</p> <p style="text-align: center;">[SET BY MR HORN-BOTHA]</p>
<p>ALGEBRA</p> <ul style="list-style-type: none"> • Products [± 20 Marks] <ul style="list-style-type: none"> ○ Multiplying out brackets ○ Binomial x Binomial ○ Binomial x Trinomial ○ Examples with multiple brackets • Factorising [± 20 Marks] <ul style="list-style-type: none"> ○ Common Factor ○ Difference of 2 squares (DOTS) ○ Trinomials ○ Common Brackets (including sign change) • Fractions [± 20 Marks] <ul style="list-style-type: none"> ○ Simplifying ○ Multiplication and Division of fractions ○ Addition and Subtraction of fractions • Equations [± 20 Marks] <ul style="list-style-type: none"> ○ Basic Equations ○ Linear equations with brackets ○ Linear equations with fractions ○ Quadratic equations • Inequalities [± 10 Marks] <ul style="list-style-type: none"> ○ Solving linear inequalities ○ Representing inequalities in interval notation and on a number line • Word problems [± 10 Marks] <ul style="list-style-type: none"> ○ Numbers, age, number of things, area ○ Rates: eg distance/speed/time ○ Unitary problems 	<p>FINANCE [± 30 Marks]</p> <ul style="list-style-type: none"> • Percentage increase/decrease • Exchange Rates • Commission and Rentals • Simple Interest, Compound Interest, Depreciation (straight-line and reducing balance) and Inflation (NB must know formulae!) Solve for A, P, i and n (n only in simple interest and straight-line depreciation) • Hire Purchase (with deposits and different types of insurance) <p>TRANSFORMATIONS [± 25 Marks]</p> <ul style="list-style-type: none"> • Describe in words • Give co-ordinates of new point • General rules for a transformation in form $(x; y) \rightarrow \dots$ • Translations (shifts) • Reflections <ul style="list-style-type: none"> ○ Around x and y axis ○ Around line $y = x$ and $y = -x$ • Rotations <ul style="list-style-type: none"> ○ 90° Clockwise and anticlockwise ○ 180° • Glide reflections • Enlargements and Reductions (including effects on perimeter and area) <p>STRAIGHT LINE GRAPHS [± 45 Marks]</p> <ul style="list-style-type: none"> • Sketching a graph • Finding x and y intercepts and other points • Finding the gradient and equation of a line • Parallel lines • Points of intersection (simultaneous equations) • Graph Interpretation (distances, etc.)