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Grade 8 Term 1	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
Unit 1 Whole numbers	Exercise 1 Mental calculations TG 1; LB 1						
	Exercise 2 Ordering and comparing whole numbers TG 1; LB 2						
	Exercise 3 Properties of whole numbers TG 2; LB 3						
	Exercise 4 Calculation techniques TG 3; LB 3						
	Exercise 5 Multiples and factors TG 4; LB 5						
	Exercise 6 Solving problems including ratio and rate TG 6; LB 7						
	Exercise 7 Solving problems in financial contexts involving profit, loss, discount and VAT TG 8: LB 9						



Grade 8 Term 1	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
	Exercise 8 Solving problems in financial context involving budget, accounts, loans, simple interest and hire purchase TG 9; LB 10						
	Exercise 9 Solving problems in financial contexts exchange rates TG 10; LB 13						
Unit 2 Integers	Exercise 1 Counting with integers TG 10; LB 14						
	Exercise 2 Ordering and comparing integers TG 12; LB 15						
	Exercise 3 Addition of integers TG 12; LB 16						
	Exercise 4 Subtraction of integers TG 13; LB 18						
	Exercise 5 Multiplication and division of integers TG 13; LB 18						
	Exercise 6 Square, cubes, square roots and cube roots of integers TG 14; LB 20						

Grade 8 Term 1	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
	Exercise 7 Properties of integers TG 15; LB 23						
	Exercise 8 Problem solving with integers TG 16; LB 24						
Unit 3 exponents	Exercise 1 Mental calculations TG 17; LB 26						
	Exercise 2 Comparing and representing numbers in exponential form TG 18; LB 28						
	Exercise 3 Compare and represent integers in exponential form TG 19; LB 29						
	Exercise 4 Scientific notation TG 20; LB 30						
	Exercise 5 Law 1: multiplication of exponents TG 21; LB 31						
	Exercise 6 Law 2: division of exponents TG 22; LB 32						
	Exercise 7 Law 3: a power raised to a power TG 22; LB 33						

Grade 8 Term 1	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
	Exercise 8 Law 4: two different bases raised to the same power TG 23; LB 34						
	Exercise 9 Law 5: a number raised to the power 0 TG 23; LB 35 Exercise 10 Solving problems TG 24; LB 35						
Unit 4 Numeric and geometric problems	Exercise 1 Revision TG 25; LB 37						
	Exercise 2 Predicting the value of any term in a sequence TG 26; LB 38						
	Exercise 3 Extending geometric patterns TG 28; LB 40						
	Exercise 4 Challenge TG 29; LB 43						
Unit 5 Functions and relationships		Exercise 1 Determine input and output values or rules using flow diagram TG 29; LB 44					

Grade 8 Term 1	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
		Exercise 2 Determine input and output using formulae and equations TG 30; LB 46 Exercise 3					
		Equivalent forms TG 31; LB 48					
Unit 6 Algebraic expressions		Exercise 1 Recognise and interpret rules or relationships represented in symbolic forms TG 32; LB 50					
		Exercise 2 Identify variables and constants in given formulae and equations TG 33; LB 52					
		Exercise 3 Recognise and identify conventions for writing algebraic expressions TG 33; LB 53					
		Exercise 4 Identify and classify like and unlike terms in algebraic expression TG 34; LB 53					



Grade 8 Term 1	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
		Exercise 5 Recognise and identify coefficients and exponents in algebraic expressions TG 35; LB 55					
		Exercise 6 Use commutative, associative and distributive laws of exponents to add and subtract like terms in algebraic expression TG 36; LB 56					
Unit 7 Algebraic equations		Exercise 1 Set up equations to describe problem situations TG 38; LB 58 Exercise 2 Analyse and interpret equations that describe a given situation TG 38; LB 59					
		Exercise 3 Solve equations by inspection TG 39; LB 60 Exercise 4 Determine the numerical value of an expression by substitution TG 39; LB 60					

Grade 8 Term 2	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
Unit 8 Algebraic expression		Exercise 1 Recognise and interpret rules or relationships represented in symbolic form TG 48; LB 66					
		Exercise 2 Recognise and identify conventions for writing algebraic expressions TG 48; LB 67					
		Exercise 3 Add and subtract like terms in algebraic expressions TG 49; LB 68					
		Exercise 4 Mixed operations in algebraic expressions TG 50; LB 69					
		Exercise 5 Multiply integers and monomials, binomials and trinomials TG 50; LB 70					
		Exercise 6 Divide integers and monomials, binomials and trinomials TG 52; LB 72					

Grade 8 Term 2	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
		Exercise 7 Determine the squares, cubes, square roots and cube roots of single algebraic terms or like algebraic terms TG 53; LB 73					
		Exercise 8 Determine the numerical value of algebraic expressions by substitution TG 53; LB 74					
Unit 9 Algebraic equations		Exercise 1 Set up equations to describe problem situations TG 55; LB 75					
		Exercise 2 Analyse and interpret equations that describe a given situation TG 55; LB 76					
		Exercise 3 Solve equations by inspection TG 56; LB 76					
		Exercise 4 Determine the numerical value of an expression by substitution TG 56; LB 77					

Grade 8 Num Term 2 Relation	nbers, erations and ationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
		Exercise 5 Solve problems using additive and multiplicative inverse TG 57; LB 78 Exercise 6 Solving equations using laws of exponents TG 58; LB 79					
Unit 10 Construction of geometric figures			Exercise 1 Constructing circles and angles TG 59; LB 80 Exercise 2 Accurately bisect a line and an angle using a pair of compasses TG 59; LB 81 Exercise 3 Accurately construct				
			perpendicular lines at a given point and from a given point TG 61; LB 84 Exercise 4 Constructing a triangle given its three sides TG 62; LB 85 Exercise 5 Constructing a triangle given two sides and the				

Grade 8 Term 2	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
			Exercise 6 Accurate construct quadrilaterals TG 63; LB 87				
			Exercise7 Construct angles of 30°, 45°, 60° and their multiples without using a protractor TG 64; LB 88				
			Exercise 8 By construction, investigate the angles in a triangle, focusing on the sum of interior and the sizes of angles in an isosceles triangle and the sides and base angles of an isosceles triangle TG 65; LB 89				
			Exercise 9 By construction, investigate sides and angles in quadrilaterals, focusing on the sum of the interior angles of quadrilaterals, and the sides and opposite angles of parallelograms TG 67; LB 90				
Unit 11 Geometry of 2D shapes			Exercise 1 Geometry of 2D shapes TG 68; LB 93				

Grade 8 Term 2	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
			Exercise 2 Identify and write clear definitions of quadrilaterals in terms of their sides and angles, distinguishing between parallelograms, rectangle, square, rhombus, trapezium and kite TG 68; LB 95				
			Exercise 3 Similar and congruent 2D shapes TG 69; LB 97				
			Exercise 4 Solve geometric problems involving unknown sides and angles in triangles and quadrilaterals using known properties and definitions TG 69; LB 98				
Unit 12 Geometry of straight lines			Exercise 1 Recognise and describe pairs of angles formed by perpendicular lines and intersecting lines TG 71; LB 103				



Grade 8 Term 2	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
			Exercise 2 Recognise and describe pairs of angles formed by parallel lines cut by a transversal TG 72; LB 104 Exercise 3				
			Solve geometric problems using the relationships between pairs of angles TG 73; LB 108				
Grade 8 Term 3	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
Unit 13 Common fractions			Exercise 1 Addition and subtraction of fractions TG 84; LB 119 Exercise 2 Multiplication of fractions TG 85; LB 120				
			Exercise 3 Division of fractions TG 85; LB 121				
			Exercise 4 Squares, cubes, square roots and cube roots of common fractions TG 86; LB 122				
			Exercise 5 Problem solving TG 87; LB 123				

Grade 8 Term 3	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
			Exercise 6 Equivalent forms TG 88; LB 125				
			Exercise 7 Calculating percentages TG 88; LB 127				
Unit 14 Decimal fractions	Exercise 1 Ordering and comparing decimal fractions TG 90; LB 130						
	Exercise 2 Adding and subtracting decimal fractions TG 91; LB 132						
	Exercise 3 Multiplication using decimal fractions TG 91; LB 133						
	Exercise 4 Division using decimal fractions TG 92; LB 136						
	Exercise 5 Squares, cubes, square roots, cube roots of decimal fractions TG 93; LB 137						
	Exercise 6 Solving problems TG 93; LB 138						
	Exercise 7 Equivalent forms TG 94; LB 139						



Grade 8 Term 3	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
Unit 15 The theorem of Pythagoras				Exercise 1 Develop the theorem of Pythagoras TG 95; LB 142			
				Exercise 2 Use the theorem of Pythagoras to determine whether a triangle is a right angled triangle TG 95; LB 143			
				Exercise 3 Use the theorem of Pythagoras to find the missing length in a right angled triangle TG 96; LB 144			
Unit 16 Area and perimeter of 2D shapes				Exercise 1 Area and perimeter of polygons TG 97; LB 147			
				Exercise 2 Finding the area of polygons by decomposing the shapes TG 98; LB 149			
				Exercise 3 Area and circumference of circles TG 100; LB 150			
				Exercise 4 Area conversions TG 102; LB 152			

Grade 8 Term 3	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
Unit 17 Surface area and volume of 3D objects				Exercise 1 Determine surface areas of cubes, rectangular prisms and triangular prisms TG 105; LB 155			
				Exercise 2 Determine the volume and capacity of cubes, rectangular prisms and triangular prisms TG 106; LB 157			
				Exercise 3 Describe interrelationships between the surface area and the volume of cubes, rectangular prisms and triangular prisms TG 106; LB 159			
				Exercise 4 Calculations and solving problems TG 108; LB 161			
Unit 18 Collect, organise and summarise data				Exercise 1 Collect data TG 111; LB 163			
				Exercise 2 Organise and summarise data TG 112; LB 165			



Grade 8 Term 3	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
				Exercise 3 Represent data TG 113; LB 168			
				Exercise 4 Interpret, analyse and report data TG 116; LB 174			
				Exercise 5 Analyse and report data TG 116; LB 178			

Grade 8 Term 4	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
Unit 19 Functions and relationships		Exercise 1 Determine input values, output values or rules for patterns using flow diagrams and equations TG 124; LB 187 Exercise 2 Determine input values, output values or rules for patterns using tables and equations TG 125; LB 189 Exercise 2					
		Equivalent forms TG 125; LB 190					
Unit 20 Algebraic equations		Exercise 1 Set up equations to describe problem situations TG 128; LB 193					
		Exercise 2 Analyse and interpret equations that describe a given situation TG 129; LB 194					
		Exercise 3 Solve equations by inspection TG 129; LB 195					
		Exercise 4 Determine the numerical value of an expression by substitution TG 132; LB 195					



Grade 8 Term 4	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
		Exercise 5 Solving problems using additive and multiplicative inverses TG 130; LB 196					
		Exercise 6 Solving equations using laws of exponents TG 132; LB 198					
		Exercise 7 Use substitution In equations to generate tables of ordered pairs TG 132; LB 199					
Unit 21 Graphs		Exercise 1 Interpreting graphs TG 135; LB 201 Exercise 2 Plotting pints on a graph					
		Exercise 3 Determine the scale of the axes TG 137; LB 208					
		Exercise 4 Plotting points on a Cartesian plane TG 138; LB 210					
		Exercise 5 Drawing graphs TG 139; LB 213					

Grade 8 Term 4	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
Unit 22 Transformation geometry			Exercise 1 Recognise, describe and perform transformations with points on a coordinate plane, focusing on reflecting a point in the y-axis or x-axis TG 146; LB 219				
			Exercise 2 Recognise, describe and perform transformations with points on a coordinate plane, focusing on translating a point within and across quadrants TG 147; LB 222				
			Exercise 3 Recognise, describe and perform transformations with triangles on a coordinate plane, focusing on the coordinates of the vertices when reflecting a triangle in the Y-axis or X-axi TG 148; LB 224				



Grade 8 Term 4	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
			Exercise 4 Recognise, describe and perform transformations with triangles on a coordinate plane, focusing on the coordinates of the vertices when translating a triangle within and across quadrants TG 149; LB 227 Exercise 5				
			Recognise, describe and perform transformations with triangles on a coordinate plane, focusing on the coordinates of the vertices when rotating a triangle around the origin TG 151; LB 228				
			Exercise 6 Enlargements and reductions on area and perimeter of geometric figures TG 152; LB 231				
Unit 23 Geometry of 3D objects			Exercise 1 Classifying 3D objects TG 155; LB 237 Exercise 2 Building 3D models TG 156; LB 239				

Grade 8 Term 4	Numbers, Operations and Relationships	Patterns, Functions and Algebra	Shape and Space	Measurement	Data Handling	Recording	Reflection
Unit 24 Probability					Exercise 1 Revision TG 163; LB 241 Exercise 2 Probability experiments TG 163; LB 243 Exercise 3		
					Comparing relative frequency and probability TG 165; LB 245		









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