

Dimensions Math 6A			
Chapter	Chapter Title	Lesson	Lesson Title
1	Whole Numbers	1	Order of Operations
		1A	Expressions and Equations
		1B	Exponents
		1C	Order of Operations without Parentheses
		1D	Order of Operations with Parentheses
		2	Factors and Multiples
		2A	Factors
		2B	Multiples
		3	Multiplication
		3A	Properties of Multiplication
		3B	Mental Multiplication
		4	Division
		4A	Properties of Division
		4B	Mental Division
2	Fractions	1	Multiplication of Fractions
		1A	Multiplication of a Proper Fraction by a Whole Number
		1B	Multiplication of a Proper Fraction by a Fraction
		1C	Multiplication of an Improper Fraction or a Mixed Number by a Whole Number
		1D	Multiplication of an Improper Fraction or a Mixed Number by a Fraction
		2	Division of Fractions
		2A	Division of a Whole Number by a Fraction
		2B	Division of a Fraction by a Whole Number
		2C	Division of a Fraction by a Fraction
3	Decimals	1	Addition and Subtraction of Decimals
		1A	Structure of Decimals
		1B	Adding and Subtracting Decimals
		2	Multiplication of Decimals
		2A	Decimal Number System
		2B	Multiplier and Product
		2C	Multiplying Decimals
		3	Division of Decimals
		3A	Divisor and Quotient
		3B	Dividing Decimals
		4	Metric Measurements and Decimals
		4	Negative Numbers
2	Comparing Positive and Negative Numbers		
2A	The Number Line		
2B	Absolute Value		
5	Ratios	1	Ratios and Equivalent Ratios
		1A	Finding Ratios
		1B	Equivalent Ratios
		2	Ratios and Fractions
6	Rate	1	Average and Rate
		2	Unit Rate
		3	Speed
7	Percent	1	Meaning of Percent
		2	Percentage of a Quantity

Dimensions Math 6B			
Chapter	Chapter Title	Lesson	Lesson Title
8	Algebraic Expressions	1	Writing and Evaluating Algebraic Expressions
		1A	Use of Letters
		1B	Evaluating Algebraic Expressions
		1C	Word Problems
		2	Simplifying Algebraic Expressions
9	Equations and Inequalities	1	Equations
		1A	Algebraic Equations
		1B	Balancing Equations
		2	Inequalities
		2A	Algebraic Inequalities
		2B	Graphing Inequalities Using a Number Line
10	Coordinates and Graphs	1	The Coordinate Plane
		2	Distance between Coordinate Pairs
		3	Changes in Quantities
		3A	Independent and Dependent Variables
		3B	Representing Relationships between Variables
		3C	Observing Relations between Variables with Graphs
11	Area of Plane Figures	1	Area of Rectangles and Parallelograms
		2	Area of Triangles
		2A	Finding Area of a Triangle
		2B	Areas Involving Parallelograms and Triangles
		3	Area of Trapezoids
12	Volume and Surface Area of Solids	1	Volume of Rectangular Prisms
		1A	Cubes and Cuboids
		1B	Volume of Liquids
		2	Surface Area of Prisms
		2A	Surface Area of Rectangular Prisms
		2B	Surface Area of Triangular Prisms
		2C	Metric Conversions and Volume
13	Displaying and Comparing Data	1	Statistical Variability
		1A	Statistical Questions
		1B	Measures of Center
		2	Displaying Numerical Data
		2A	Dot Plots
		2B	Histograms
		3	Measures of Variability and Box Plots
		3A	Range
		3B	Mean Absolute Deviation
		3C	Interquartile Range
		3D	Box Plot

Dimensions Math 7A			
Chapter	Chapter Title	Lesson	Lesson Title
1	Factors and Multiples	1	Factors and Multiples
		1A	Factors
		1B	Multiples
		2	Prime Factorization and Exponential Notation
		2A	Prime Factorization
		2B	Exponential Notation
		3	Greatest Common Factor (GCF)
		4	Least Common Multiple (LCM)
		5	Square Roots and Cube Roots
		5A	Square Roots
		5B	Cube Roots
2	Real Numbers	1	Idea of Negative Numbers and the Number Line
		1A	Negative Numbers
		1B	The Number Line
		1C	Absolute Value
		2	Addition and Additive Inverse
		2A	Addition of Integers
		2B	Additive Inverse
		3	Subtraction and Absolute Value of the Difference
		3A	Subtraction of Integers
		3B	Absolute Value of the Difference
		4	Multiplication, Division, and Combined Operations of Integers
		4A	Multiplication of Integers
		4B	Division of Integers
		4C	Combined Operations of Integers
		5	Rational Numbers
		5A	Definition
		5B	Addition and Subtraction of Rational Numbers
		5C	Multiplication and Division of Rational Numbers
		6	Real Numbers and Use of Calculators
		6A	Real Numbers
		6B	Use of Calculators
7	Rounding Numbers to Decimal Places		
7A	Idea of Rounding		
7B	Rounding Numbers to Decimal Places		
3	Introduction to Algebra	1	The Use of Letters in Algebra
		1A	The Use of Letters
		1B	Basic Notations in Algebra
		1C	Exponential Notation
		2	Evaluation of Algebraic Expressions and Formulas
		2A	Evaluation of Algebraic Expressions
		2B	Formulas
		3	Writing Algebraic Expressions to Represent Real-world Situations
4	Algebraic Manipulation	1	Like Terms and Unlike Terms
		2	Distributive Law, Addition, and Subtraction of Linear Algebraic Expressions
		2A	Use of Parentheses
		2B	Addition and Subtraction of Linear Algebraic Expressions
		3	Simplification of Linear Algebraic Expressions
		4	Factorization by Extracting Common Factors
		5	Factorization by Grouping Terms

Chapter	Chapter Title	Lesson	Lesson Title
5	Simple Equations in One Variable	1	Simple Linear Equations in One Variable
		2	Equations Involving Parentheses
		3	Simple Fractional Equations
		4	Forming Linear Equations to Solve Problems
6	Ratio, Rate, and Speed	1	Ratios Involving Rational Numbers
		1A	Meaning of Ratio
		1B	Simplification of Ratios
		1C	Ratio of Three Quantities
		1D	Problems Involving Ratios
		2	Average Rate
		3	Speed
		3A	Uniform Speed and Average Speed
3B	Conversion of Units		
7	Percentage	1	Meaning of Percentage
		1A	Introduction
		1B	Expressing One Quantity as a Percentage of Another
		2	Reverse Percentages
		3	Percentage Increase and Decrease
		3A	Percentage Increase
		3B	Percentage Decrease
		4	Discount and Sales Tax
		4A	Discount
		4B	Sales Tax
8	Angles, Triangles, and Quadrilaterals	1	Points, Lines, and Planes
		2	Angles
		2A	Angles and Measurements
		2B	Types of Angles
		2C	Complementary, Supplementary, and Adjacent Angles
		2D	Properties of Angles
		3	Perpendicular Bisectors and Angle Bisectors
		3A	Use of Compasses
		3B	Perpendicular Bisectors
		3C	Angle Bisectors
		4	Triangles
		4A	Classification of Triangles
		4B	Construction of Triangles
		5	Quadrilaterals
		5A	Types of Quadrilaterals
		5B	Properties of Special Quadrilaterals
		5C	Construction of Quadrilaterals

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9	Number Patterns	1	Number Patterns and Sequences
		2	General Term of a Sequence
		2A	General Term
		2B	Application of Number Patterns
10	Coordinates and Linear Graphs	1	Cartesian Coordinate System
		2	Linear Graphs
		3	Slopes of Linear Graphs
		3A	Positive Slopes
		3B	Negative Slopes
3C	Special Cases		

Chapter	Chapter Title	Lesson	Lesson Title
11	Inequalities	1	Solving Simple Inequalities
		1A	Idea of Inequality
		1B	Solving an Inequality
		2	More Properties of Inequalities
		3	Simple Linear Inequalities
		4	Applications of Simple Inequalities
12	Perimeters and Areas of Plane Figures	1	Perimeters and Areas of a Square, a Rectangles, and a Triangle
		2	Circumference and Area of a Circle
		3	Area of a Parallelogram
		4	Area of a Trapezoid
		5	Perimeters and Areas of Composite Plane Figures
13	Volumes and Surface Areas of Solids	1	Volumes and Total Surface Areas of a Cube and a Cuboid
		1A	Nets of Cube, Cuboid, and Other Prisms
		1B	Cube
		1C	Cuboid
		2	Volume and Total Surface Area of a Prism
		2A	Prism
		2B	Volume of Prism
		2C	Surface Area of Prism
		3	Volumes and Surface Areas of Composite Solids
		3A	Conversion between Different Units
		3B	Composite Solids
14	Proportions	1	Scale Drawings
		2	Map Scale and Calculation of Area
		2A	Map Scale
		2B	Calculation of Area
		3	Direct Proportion
		4	Inverse Proportion
15	Data Handling	1	Collection of Data
		2	Dot Plots
		3	Measure of Center: Mean
		3A	Measure of Center
		3B	Mean
		3C	Using Mean to Compare Two Populations
		3D	Variation from the Mean
		4	Measure of Center: Median
		5	Mode
		5A	Definition of Mode
		5B	Comparison between Mean, Median, and Mode
16	Probability of Simple Events	1	Set Notation
		1A	Sets
		1B	Equal Sets
		1C	Subsets
		1D	Universal Set and Empty Set
		1E	Complement of a Set
		2	The Meaning of Probability
		2A	Introduction
		2B	Terms and Definitions
		3	Sample Space
		3A	Sample Space
		3B	Basic Properties of Probabilities

Chapter	Chapter Title	Lesson	Lesson Title
17	Probability of Combined Events	1	Probabilities of Simple Combined Events
		1A	Possibility Diagram
		1B	Tree Diagram
		2	Mutually Exclusive Events
		3	Independent Events
		4	Further Probabilities

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Chapter	Chapter Title	Lesson	Lesson Title
1	Exponents and Scientific Notation	1	Positive Exponents and the Laws of Exponents
		2	Zero and Negative Integral Exponents
		3	Fractional Exponents
		3A	$n$ th root of a Positive Number
		3B	Fractional Exponents
		4	Comparing Exponents
		5	Scientific Notation
		5A	Representation of Very Small or Very Large Numbers
		5B	Computation
		6	Rounding Numbers to a Specified Number of Significant Figures
		7	Estimations and Accuracy of Calculators
		7A	Estimations
		7B	Estimation and Irrational Numbers
		7C	Accuracy in Calculators
2	Linear Equations in Two Variables	1	Linear Equations in Two Variables
		1A	Review of Linear Equations in One Variable
		1B	Meaning of Linear Equations in Two Variables
		2	Solving Simultaneous Linear Equations in Two Variables using the Graphical Method
		3	Solving Simultaneous Linear Equations in Two Variables using the Substitution Method
		4	Solving Simultaneous Linear Equations in Two Variables using the Elimination Method
3	Expansion and Factorization of Algebraic Expressions	1	Expansion of the Products of Algebraic Expressions
		1A	Product of Single Terms
		1B	Product of Two Expressions
		2	Special Products of Algebraic Expressions
		3	Factorization by using Special Products of Algebraic Expressions
4	Quadratic Factorization and Equations	1	Factorization of $ax^2 + bx + c$
		1A	$x^2 + bx + c$
		1B	$ax^2 + bx + c$
		2	Solving Quadratic Equations by Factorization
5	Simple Algebraic Fractions	3	Problem Solving Involving Quadratic Equations
		1	Simplifying Simple Algebraic Fractions
		2	Multiplication and Division of Algebraic Fractions
		3	Addition and Subtraction of Algebraic Fractions
		4	Fractional Equations
		4A	Solving Equations Involving Algebraic Fractions
		4B	Problem Solving Involving Fractional Equations
		5	More about Formulas
		5A	Finding the Value of an Unknown Quantity in a Formula
		5B	Changing the Subject of a Formula
6	Congruence and Similarity	1	Congruence and Reflections
		1A	Congruent Figures
		1B	Reflections
		2	Translations, Rotations, and Combining Transformations
		2A	Translations
		2B	Rotations
		2C	Combining Transformations
		3	Similarity
		4	Enlargements and Similarity
		4A	Scale Factors
4B	Enlargements		

Chapter	Chapter Title	Lesson	Lesson Title
7	Parallel Lines and Angles in Triangles and Polygons	1	Angles formed by Parallel Lines and Transversals
		1A	Angle Properties
		1B	Parallel Lines and Transversals
		2	Interior and Exterior Angles of a Triangle
		2A	Angle Sum of a Triangle
		2B	Exterior Angle of a Triangle
		3	Angle Properties of Special Quadrilaterals
		4	Polygons
		4A	Types of Polygons
		4B	Sum of Interior Angles of a Polygon
		4C	Sum of Exterior Angles of a Polygon

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8	Graphs of Linear and Quadratic Functions	1	Linear Function
		1A	Idea of Functions
		1B	Linear Functions
		1C	Rate of Change
		2	Graphs of Quadratic Functions
		2A	Graph of $y = ax^2 + bx + c$ , where $a > 0$
		2B	Graph of $y = ax^2 + bx + c$ , where $a < 0$
9	Graphs in Practical Situations	1	Tables, Charts and Graphs
		2	Distance-Time Graphs
10	Pythagorean Theorem	1	Pythagorean Theorem
		2	The Converse of Pythagorean Theorem
		2A	Definition
		2B	Determination of Right-Angled Triangles
11	Coordinate Geometry	3	Applications of Pythagoras Theorem
		1	Distance Between Two Points
		2	Slope of a Straight Line
12	Mensuration of Pyramids, Cylinders, Cones and Spheres	3	Equation of a Straight Line
		1	Pyramids
		1A	Introducing Pyramids
		1B	Nets and Surface Areas of Pyramids
		1C	Volumes of Pyramids
		2	Cylinders
		2A	Volume and Surface Area of a Cylinder
		3	Cones
		3A	Introducing Cones
		3B	Net and Surface Area of a Cone
		3C	Volume of a Cone
		4	Spheres
		4A	Introducing Spheres
4B	Volume of a Sphere		
4C	Surface Area of a Sphere		
13	Data Analysis	1	Organizing Data in Frequency Tables
		2	Bar Graphs and Histograms
		2A	Bar Graphs and Histograms
		2B	Histograms
		3	Line Graphs and Scatter Plots
		3A	Line Graphs
		3B	Scatter Plots



Chapter	Chapter Title	Lesson	Lesson Title
14	More About Quadratic Equations	1	Solving Quadratic Equations by Factorization
		2	Completing the Square Method
		3	Quadratic Formula
		4	Graphical Method
		5	Applications of Quadratic Equations