

NRP 2691: <i>Math Sense 1: Focus on Operations</i>	Learning Upgrade Math: Grade 4	Learning Upgrade Math: Grade 5	Learning Upgrade Math: Grade 6	Learning Upgrade Math: Grade 7	Learning Upgrade Math: Grade 8	Learning Upgrade Math: Algebra
Unit 1: Whole Numbers						
Addition						
Subtraction						
Multiplication						
Division						
Division by Two or More Digits			Lesson 11			
Problem Solver: Mental Math and Estimation				Lessons 23–24, 26–27		
Problem Solver: The Five-Step Plan				Lessons 23–24, 26–27		
Tools: Using Your Calculator						
Test Taker: Choose an Operation				Lessons 23–24, 26–27		
Unit 2: Decimals						
Understanding Decimals						
Writing Decimals						
Rounding Decimals						
Comparing Decimals						
Adding and Subtracting Decimals						
Problem Solver: Solving Multistep Problems				Lessons 23–24, 26–27, 33	Lesson 28	Lesson 26
Mixed Review						
Multiplying Decimals						
Dividing Decimals			Lesson 11			
Problem Solver: Powers of Ten						
Problem Solver: Figuring Unit Price and Total Cost			Lessons 35–36	Lessons 23–24, 26–27, 33	Lesson 28	Lesson 26
Tools: Calculators and Decimals						

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Test Taker: Use Estimation to Choose an Answer				Lessons 23–24, 26–27		
Unit 3: Fractions						
Relating Decimals and Fractions						
Different Forms of Fractions				Lessons 8–9, 11–12		
Equivalent Fractions	Lessons 27, 35	Lessons 25, 34				
Comparing Fractions						
Adding and Subtracting Like Fractions						
Problem Solver: Multiples and Factors			Lesson 12			
Finding Common Denominators			Lesson 12			
Adding and Subtracting Unlike Fractions						
Working with Whole and Mixed Numbers				Lessons 2, 6–7		
Mixed Review						
Multiplying Fractions				Lessons 8–9, 11–12		
Dividing Fractions			Lessons 13, 16	Lessons 8–9, 11–12		
Multiplying and Dividing with Mixed Numbers				Lessons 8–9, 11–12		
Problem Solver: Does the Answer Makes Sense?				Lessons 22–24, 26–27		
Tools: Calculators and Fractions				Lessons 8–9, 11–12		
Test Taker: Know When to Use Decimals						
Unit 4: Ratio, Proportion, and Percent						
Relating Fractions and Ratios			Lessons 35–36			
Writing Ratios			Lessons 35–36			
Problem Solver: Unit Rates			Lessons 35–36, 39	Lessons 35–37		
Ratios in Word Problems			Lesson 39	Lessons 23–24, 26–27, 35–37		
Writing Proportions			Lessons 35–36, 39	Lessons 35–37		

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Solving Problems with Proportions				Lessons 35–37		
Tools: Using a Calculator with Proportion						
Problem Solver: Scale Drawings			Lesson 39	Lessons 23–24, 26–27, 33, 35–37, 42	Lesson 28	Lesson 26
Mixed Review						
Understanding Percents			Lessons 35–36			
Decimals, Fractions, and Percents			Lessons 35–36			
The Percent Equation			Lessons 35–36			
Solving Percent Equations			Lessons 35–36			
Problem Solver: Common Percent Applications			Lessons 35–38	Lessons 23–24, 26–27, 33, 38–39	Lesson 28	Lesson 26
Two-Step Percent Problems			Lessons 35–38	Lessons 23–24, 26–27, 33, 38–39	Lesson 28	Lesson 26
Tools: Using a Calculator with Percents			Lessons 35–36	Lesson 33	Lesson 28	Lesson 26
Problem Solver: Use Proportion to Solve Percent Problems			Lessons 35–38	Lessons 33, 38–39	Lesson 28	Lesson 26
Percent of Increase/ Decrease			Lessons 35–38	Lessons 23–24, 26–27, 33, 38–39	Lesson 28	Lesson 26
Test Taker Use Fractions to Solve Percent Problems			Lessons 35–36	Lesson 33	Lesson 28	Lesson 26
Unit 5: Measurement						
Customary Units of Length			Lessons 35–36			
Working with Length			Lessons 35–36			
Measuring Capacity			Lessons 35–36			
Measuring Weight			Lessons 35–36			
Using Metric Units			Lessons 35–36			
Problem Solver: Making Conversions			Lessons 35–36			
Working with Time and Temperature			Lessons 35–36			
Problem Solver: Figuring Distance, Rate, and Time			Lessons 35–36	Lessons 35–37		
Problem Solver: Basic Perimeter Problems						
Test Taker: Make Your Own Drawing						

NRP 2692: Math Sense 2: Focus on Problem Solving	Learning Upgrade Math: Grade 4	Learning Upgrade Math: Grade 5	Learning Upgrade Math: Grade 6	Learning Upgrade Math: Grade 7	Learning Upgrade Math: Grade 8	Learning Upgrade Math: Algebra
Unit 1: Numbers and Properties						
The Number Line			Lessons 2–5	Lessons 2, 6–7		
Comparing and Ordering Integers			Lessons 2–5, 8	Lessons 2, 6–7		
Problem Solver: Kinds of Numbers						
Problem Solver: Prime Numbers and Prime Factoring						
Tools: Properties of Numbers			Lessons 12, 27–30	Lessons 2, 6–9, 11–12		
Adding and Subtracting Signed Numbers			Lessons 2–5	Lessons 2, 6–7		
Problem Solver: Absolute Value			Lesson 8	Lessons 2, 6–7		
Multiplying and Dividing Signed Numbers				Lessons 8–9, 11–12		
Powers and Roots					Lessons 2–6	
Order of Operations			Lessons 21–23, 27–30	Lessons 8–9, 11–12		
Tools: Using a Calculator						
Unit 2: The Basics of Algebra						
Expressions and Variables			Lessons 21–23, 32–33	Lessons 14, 16,18–21		Lessons 1, 4–7
Evaluating Expressions			Lessons 21–23, 30			
Simplifying Expressions			Lessons 21– 23,27–30	Lessons 21–22		
Tools: The Rules of Exponents					Lessons 3–5	Lesson 3
Negative Exponents					Lessons 3–5	Lesson 3
Tools: Scientific Notation					Lessons 3, 7–9	Lesson 3
Simplifying Radicals					Lessons 2–3, 6	Lesson 3
Mixed Review						
Problem Solver: Reading and Writing Equations			Lessons 21– 23,32–33	Lesson 29		Lessons 11–12
Solving Addition and Subtraction Equations			Lessons 31, 33, 35–36	Lessons 29, 31	Lesson 59	Lessons 12, 59

NRP 2692: Math Sense 2: Focus on Problem Solving	Learning Upgrade Math: Grade 4	Learning Upgrade Math: Grade 5	Learning Upgrade Math: Grade 6	Learning Upgrade Math: Grade 7	Learning Upgrade Math: Grade 8	Learning Upgrade Math: Algebra
Solving Multiplication and Division Equations			Lessons 31, 33	Lessons 29, 31, 33–34	Lesson 59	Lessons 12, 59
Solving Multistep Equations				Lessons 28–29, 31	Lesson 59	Lessons 12, 59
Solving Equations with Separated Terms			Lessons 35–36	Lessons 28–29, 31	Lesson 59	Lessons 12, 59
Solving Equations with Parentheses				Lessons 28–29, 31	Lesson 59	Lessons 12, 59
Tools: Graphing Inequalities			Lessons 7–8	Lessons 28–29, 31		Lesson 12
Solving Inequalities			Lessons 7, 31	Lessons 28–29, 31		Lesson 12
Test Taker: Try the Answer Choices				Lessons 21–24, 26–27		
Unit 3: Solving Problems with Algebra						
Translating Words to Equations			Lessons 32–33	Lessons 21–24, 26–29, 31		Lessons 11–12
Number Puzzles and Age Problems				Lessons 23–24, 26–29, 31		
Problem Solver: Solving Equations with Fractions and Decimals				Lessons 23–24, 26–29, 31		
Solving Motion Problems			Lessons 23, 35–36, 39	Lessons 23–24, 26–29, 31, 35–37		
Solving Value Problems			Lessons 23, 35	Lessons 23–24, 26–29, 31		
Solving Work Problems			Lessons 23, 35–36, 39	Lessons 23–24, 26–29, 31, 35–37		
Problem Solver: Using Inequalities to Solve Word Problems			Lessons 7–8	Lessons 23–24, 26–27		
Test Taker: Using Formulas			Lessons 21–23, 39	Lessons 23–24, 26–29, 35–37		
Rewriting Formulas			Lessons 23, 27–30, 35, 39	Lessons 23–24, 26–29, 35–37		

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Unit 4: Geometry Basics						
Points, Lines, and Angles					Lesson 46	
Tools: Using Protractors					Lesson 46	
Working with Angles				Lesson 46	Lesson 46	
Quadrilaterals				Lesson 42	Lesson 46	
Triangles				Lesson 42	Lesson 46	
The Pythagorean Theorem					Lesson 51	
Similar Geometric Figures			Lesson 39	Lessons 35–37, 42	Lessons 44–46	
Problem Solver: Finding Patterns in Algebra and Geometry			Lesson 39	Lessons 35–37		
Mixed Review						
Perimeter				Lesson 33	Lesson 28	Lesson 26
Area of Squares, Rectangles, and Parallelograms				Lessons 33, 47	Lesson 28	Lesson 26
Area of Triangles and Trapezoids				Lessons 33, 47	Lesson 28	Lesson 26
Circumference and Area of Circles				Lessons 33, 45, 47	Lessons 28, 46	Lesson 26
Problem Solver: Area of Complex Figures				Lessons 33, 47	Lesson 28	Lesson 26
Volume of Prisms and Cylinders				Lessons 33, 47	Lesson 28	Lesson 26
Volume of Pyramids, Cones, and Spheres				Lessons 33, 47	Lessons 28, 53	Lesson 26
Surface Area				Lessons 33, 47	Lesson 28	Lesson 26
Problem Solver: Choosing Area, Perimeter, Volume, or Surface Area				Lessons 23–24, 26–27, 33, 47	Lessons 28, 53	Lesson 26
Tools: Using Algebra and Geometry Problems						
Unit 5: Connecting Algebra and Geometry						
The Coordinate Plane			Lessons 2–6, 8, 23, 35, 49			
Problem Solver: Making a Table to Graph an Equation			Lessons 25, 35–36			
Using Intercepts to Graph a Line						

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Slope: Rise over Run			Lesson 39	Lessons 35–37	Lessons 28–29	
Parallel and Perpendicular Lines					Lessons 28–29, 46	
Problem Solver: Problem Solving with Slope			Lesson 39	Lessons 35–37	Lessons 28–29	
Writing the Equation of a Line					Lessons 16, 18–19, 38	
Using Point-Slope Form					Lessons 16, 18–19, 38	
Distance between Points			Lessons 6, 8, 49		Lesson 52	
Problem Solver: Geometric Figures on the Coordinate Plane				Lesson 42	Lessons 16, 18–19, 38, 52	

NRP 2693: Math Sense 3: Focus on Analysis	Learning Upgrade Math: Grade 4	Learning Upgrade Math: Grade 5	Learning Upgrade Math: Grade 6	Learning Upgrade Math: Grade 7	Learning Upgrade Math: Grade 8	Learning Upgrade Math: Algebra
Unit 1: Data Analysis						
Working with Tables			Lesson 51			
Bar Graphs and Histograms			Lessons 51, 53, 55–56	Lessons 33, 35–37	Lessons 28, 54–55, 58	Lesson 26
Circle Graphs			Lessons 35–36, 51	Lessons 33, 35–37	Lesson 28	Lesson 26
Scatter Plots			Lessons 39, 51, 53, 55–56	Lessons 33, 35–37	Lessons 28, 54–55	Lesson 26
Line Graphs			Lessons 35–36, 39, 51	Lessons 33, 35–37, 52–53	Lessons 28–29, 56–57	Lesson 26
Finding the Mean			Lesson 51			
Median and Mode			Lesson 51			
Problem Solver: Using Typical Values			Lesson 51			
Weighted Averages						
Mixed Review						
Reading a Box Plot			Lessons 51, 53, 55–56	Lessons 48–49	Lessons 54–55	
Distribution of Data			Lessons 51, 53–54, 57	Lessons 48–49		
Making Predictions and Identifying Trends			Lessons 35–36	Lessons 50–51	Lesson 58	
Understanding Correlation			Lesson 39	Lessons 35–37	Lessons 35–36, 38, 56	
Sampling a Population			Lesson 51	Lessons 50–51		
Using Two Data Sources			Lessons 37–39	Lessons 38–39, 52–53	Lesson 58	
Problem Solver: Drawing Conclusions				Lessons 33, 52–53	Lesson 28	Lesson 26
Unit 2: Counting and Probability						
Problem Solver: Counting Strategies			Lessons 58–59			
Permutations			Lessons 58–59			
Combinations			Lessons 58–59			
Simple Probability			Lessons 54–57			
Compound Probability			Lessons 56–59			

NRP 2693: Math Sense 3: Focus on Analysis	Learning Upgrade Math: Grade 4	Learning Upgrade Math: Grade 5	Learning Upgrade Math: Grade 6	Learning Upgrade Math: Grade 7	Learning Upgrade Math: Grade 8	Learning Upgrade Math: Algebra
Problem Solver: Using Probability for Predictions			Lessons 56–57	Lesson 53		
Experimental Probability			Lessons 56–57			
Unit 3: Systems of Equations and Inequalities						
Systems of Equations					Lessons 14–15, 32–34	Lessons 14, 16, 30–32
Solve Systems Using Substitution					Lessons 14–15, 32–34	Lessons 30–32
Solve Systems Using Elimination					Lessons 14–15, 32–34	Lessons 30–32
Problem Solver: Write Systems to Solve Word Problems					Lessons 14–15, 32–34	Lessons 13, 30–32
Graph Linear Inequalities						Lessons 14, 16
Solve Systems of Linear Inequalities						
Problem Solver: Interpret Graphs of Systems						Lessons 13–14, 16
Unit 4: Functions						
Patterns and Sequences						
Finding the nth Term in a Sequence			Lesson 39			
Working with a Geometric Sequence				Lessons 35–37		
Function Basics					Lessons 35–36	Lessons 27–29
Reading Graphs of Functions					Lessons 11, 16, 18–19, 38	Lessons 54, 57
Finding Domain and Range of a Function					Lesson 39	
Problem Solver: Comparing Functions			Lessons 35–36		Lessons 11, 28–29, 37	Lessons 10, 54, 57
Problem Solver: Functions in the Real World					Lessons 11, 21, 28–29, 35, 39	Lessons 10, 13, 27, 54, 57
Unit 5: Polynomials and Rational Expressions						
Simplify Polynomial Expressions						Lessons 33, 35–37, 48
Multiply an Expression by a Monomial						Lessons 33, 35–37, 48

NRP 2693: Math Sense 3: Focus on Analysis	Learning Upgrade Math: Grade 4	Learning Upgrade Math: Grade 5	Learning Upgrade Math: Grade 6	Learning Upgrade Math: Grade 7	Learning Upgrade Math: Grade 8	Learning Upgrade Math: Algebra
Multiply Binomials Using FOIL						Lessons 33, 35–37, 48
Factor Out a Monomial				Lesson 22		Lesson 47
Use FOIL to Factor Trinomials				Lesson 22		Lesson 47
Mixed Review						
Add and Subtract Rational Expressions				Lesson 22		Lesson 47
Multiply Rational Expressions				Lesson 22	Lesson 39	Lesson 47
Divide Rational Expressions				Lessons 22, 33–34		Lesson 47
Simplify Rational Expressions				Lesson 22		Lesson 47
Unit 6: Quadratic Equations						
Quadratic Equation Basics						
Tools: Solve Quadratic Equations Using Graphs					Lesson 11	Lesson 10
Solve Quadratic Equations by Factoring				Lesson 22		
Completing the Square						
Tools: Use the Quadratic Formula						
Solving Word Problems with Quadratic Equations				Lessons 22, 29	Lesson 39	Lessons 11–12