



# Pre-Algebra

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## REVERSE CORRELATION

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
<b>Unit 1 Rational Numbers and Equations</b>	
<b>Chapter 1 The Tools of Algebra</b>	
1-1 Words and Expressions	<b>Algebraic Relationships</b> Grade 7 2.A
1-2 Variables and Expressions	<b>Algebraic Relationships</b> Grade 7 2.A
1-3 Properties	<b>Algebraic Relationships</b> Grade 7 2.B Grade 8 2.B
1-4 Ordered Pairs and Relations	<b>Geometric &amp; Spatial Relationships</b> Grade 7 2.A
1-5 Words, Equations, Tables, and Graphs	<b>Algebraic Relationships</b> Grade 7 3.A Grade 8 3.A
1-6 Scatter Plots	<b>Data &amp; Probability</b> Grade 7 1.C Grade 8 1.C, 3A

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
<b>Chapter 2 Operations with Integers</b>	
2-1 Integers and Absolute Value	Number and Operations Grade 7 1A Grade 8 1A
2-2 Adding Integers	Number and Operations Grade 7 2B, 3C
2-3 Subtracting Integers	Number and Operations Grade 7 2B, 3C
2-4 Multiplying Integers	Number and Operations Grade 7 2B, 3C
2-5 Dividing Integers	Number and Operations Grade 7 2B, 3C
2-6 Graphing in Four Quadrants	Geometric and Spatial Relationships Grade 7 2A
2-7 Translations and Reflections on the Coordinate Plane	Geometric and Spatial Relationships Grade 7 2A
<b>Chapter 3 Operations with Rational Numbers</b>	
3-1 Fractions and Decimals	Number and Operations Grade 7 3C
3-2 Rational Numbers	Number and Operations Grade 7 3C
3-3 Multiplying Rational Numbers	Number and Operations Grade 7 3C
3-4 Dividing Rational Numbers	Number and Operations Grade 7 3C
3-5 Adding and Subtracting Like Fractions	Number and Operations Grade 7 3C
3-6 Adding and Subtracting Unlike Fractions	Number and Operations Grade 7 3C

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
<b>Chapter 4 Expressions and Equations</b>	
4-1 The Distributive Property	<b>Number and Operations</b> Grade 7 2C Grade 8 2C
4-2 Simplifying Algebraic Expressions	<b>Algebraic Relationships</b> Grade 7 2B Grade 8 2B
4-3 Solving Equations by Adding or Subtracting	<b>Algebraic Relationships</b> Grade 7 3A Grade 8 3A
4-4 Solving Equations by Multiplying or Dividing	<b>Algebraic Relationships</b> Grade 7 3A Grade 8 3A
4-5 Solving Two-Step Equations	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
4-6 Writing Equations	<b>Algebraic Relationships</b> Grade 7 2A Grade 8 2A
<b>Chapter 5 Multi-Step Equations and Inequalities</b>	
5-1 Perimeter and Area	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
5-2 Solving Equations with Variables on Each Side	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
5-3 Inequalities	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
5-4 Solving Inequalities	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
5-5 Solving Multi-Step Equations and Inequalities	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
<b>Unit 2 Proportions and Similarity</b>	
<b>Chapter 6 Ratio, Proportion, and Similar Figures</b>	
6-1 Ratios	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
6-2 Unit Rates	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
6-3 Converting Rates and Measurements	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
6-4 Proportional and Nonproportional Relationships	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
6-5 Solving Proportions	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
6-6 Scale Drawings and Models	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
6-7 Similar Figures	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
6-8 Dilations	<b>Geometric and Spatial Relationships</b> Grade 7 3B Grade 8 3B
6-9 Indirect Measurement	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
<b>Chapter 7 Percent</b>	
7-1 Fractions and Percents	<b>Number and Operations</b> Grade 7 1B Grade 8 1B
7-2 Fractions, Decimals, and Percents	<b>Number and Operations</b> Grade 7 1B Grade 8 1B
7-3 Using the Percent Proportion	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
7-4 Find Percent of a Number Mentally	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
7-5 Using Percent Equations	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
7-6 Percent of Change	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
7-7 Simple and Compound Interest	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
7-8 Circle Graphs	<b>Data and Probability</b> Grade 7 1C Grade 8 1C
<b>Unit 3 Linear and Nonlinear Functions</b>	
<b>Chapter 8 Linear Functions and Graphing</b>	
8-1 Functions	<b>Algebraic Relationships</b> Grade 7 1D Grade 8 1D
8-2 Sequences and Equations	<b>Algebraic Relationships</b> Grade 7 1B, 1C Grade 8 1B, 1C

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
8-3 Representing Linear Functions	<b>Algebraic Relationships</b> Grade 7 1D Grade 8 1D
8-4 Rate of Change	<b>Algebraic Relationships</b> Grade 7 4A Grade 8 4A
8-5 Constant Rate of Change and Direct Variation	<b>Algebraic Relationships</b> Grade 7 4A
8-6 Slope	<b>Algebraic Relationships</b> Grade 8 4A
8-7 Slope-Intercept Form	<b>Algebraic Relationships</b> Grade 8 4A
8-8 Writing Linear Equations	<b>Algebraic Relationships</b> Grade 7 1D, 2A, 3A Grade 8 1D, 2A, 3A
8-9 Prediction Equations	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
8-10 Systems of Equations	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
<b>Chapter 9 Powers and Nonlinear Functions</b>	
9-1 Powers and Exponents	<b>Number and Operations</b> Grade 7 1C
9-2 Prime Factorization	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
9-3 Multiplying and Dividing Monomials	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
9-4 Negative Exponents	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
9-5 Scientific Notation	<b>Number and Operations</b> Grade 7 1C Grade 8 1C
9-6 Powers of Monomials	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
9-7 Linear and Nonlinear Functions	<b>Algebraic Relationships</b> Grade 7 1D Grade 8 1D
9-8 Quadratic Functions	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
9-9 Cubic and Exponential Functions	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.

CHAPTER/LESSON TITLES		GRADE-LEVEL EXPECTATIONS
<b>Unit 4 Two- and Three-Dimensional Space</b>		
<b>Chapter 10 Real Numbers and Right Triangles</b>		
<b>10-1</b> Squares and Square Roots	<b>Number and Operations</b> <b>Grade 7 1D</b>	
<b>10-2</b> The Real Number System	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.	
<b>10-3</b> Triangles	<b>Geometric Relationships</b> <b>Grade 7 4B</b> <b>Grade 8 1A, 4B</b>	
<b>10-4</b> The Pythagorean Theorem	<b>Geometric Relationships</b> <b>Grade 8 1A, 2A</b>	
<b>10-5</b> The Distance Formula	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.	
<b>10-6</b> Special Right Triangles	<b>Geometric Relationships</b> <b>Grade 8 2A</b>	
<b>Chapter 11 Distance and Angle</b>		
<b>11-1</b> Angle and Line Relationships	<b>Measurement</b> <b>Grade 7 2B</b> <b>Geometric Relationships</b> <b>Grade 7 4B</b> <b>Grade 8 4B</b>	
<b>11-2</b> Congruent Triangles	<b>Geometric Relationships</b> <b>Grade 7 4B</b> <b>Grade 8 4B</b>	
<b>11-3</b> Rotations	<b>Geometric Relationships</b> <b>Grade 7 4B</b> <b>Grade 8 4B, 3A</b>	
<b>11-4</b> Quadrilaterals	<b>Geometric Relationships</b> <b>Grade 7 4B</b> <b>Grade 8 4B</b>	
<b>11-5</b> Polygons	<b>Geometric Relationships</b> <b>Grade 7 4B</b> <b>Grade 8 4B</b>	
<b>11-6</b> Area of Parallelograms, Triangles, and Trapezoids	<b>Geometric Relationships</b> <b>Grade 7 4B</b> <b>Grade 8 4B</b>	

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
11-7 Circles and Circumference	<b>Geometric Relationships</b> Grade 7 4B Grade 8 4B Measurement Grade 7 2C
11-8 Area of Circles	<b>Geometric Relationships</b> Grade 7 4B Grade 8 4B
11-9 Area of Composite Figures	<b>Geometric Relationships</b> Grade 7 4B Grade 8 4B
<b>Chapter 12 Surface Area and Volume</b>	
12-1 Three-Dimensional Figures	<b>Geometric Relationships</b> Grade 7 1A Grade 8 1A
12-2 Volume of Prisms	<b>Measurement</b> Grade 7 1A, 2C
12-3 Volume of Cylinders	<b>Measurement</b> Grade 7 1A, 2C
12-4 Volume of Pyramids, Cones, and Spheres	<b>Measurement</b> Grade 7 1A
12-5 Surface Area of Prisms	<b>Measurement</b> Grade 7 2C
12-6 Surface Area of Cylinders	<b>Measurement</b> Grade 7 2C
12-7 Surface Area of Pyramids and Cones	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
12-8 Similar Solids	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
<b>Unit 5 Data Sets</b>	
<b>Chapter 13 Statistics and Probability</b>	
13-1 Measures of Central Tendency	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
13-2 Stem-and-Leaf Plots	<b>Statistics and Probability</b> Grade 7 1C Grade 8 1C

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
13-3 Measure of Variation	<b>Statistics and Probability</b> Grade 7 2A Grade 8 2A
13-4 Box-and-Whisker Plots	<b>Statistics and Probability</b> Grade 7 1C Grade 8 1C
13-5 Histograms	<b>Statistics and Probability</b> Grade 7 1C Grade 8 1C
13-6 Theoretical and Experimental Probability	<b>Statistics and Probability</b> Grade 7 4A
13-7 Using Sampling to Predict	<b>Statistics and Probability</b> Grade 7 3A Grade 8 3A
13-8 Counting Outcomes	<b>Statistics and Probability</b> Grade 7 4A
13-9 Permutations and Combinations	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.
13-10 Probability of Compound Events	There are no state-mandated Grade 7 or Grade 8 GLEs for this topic.