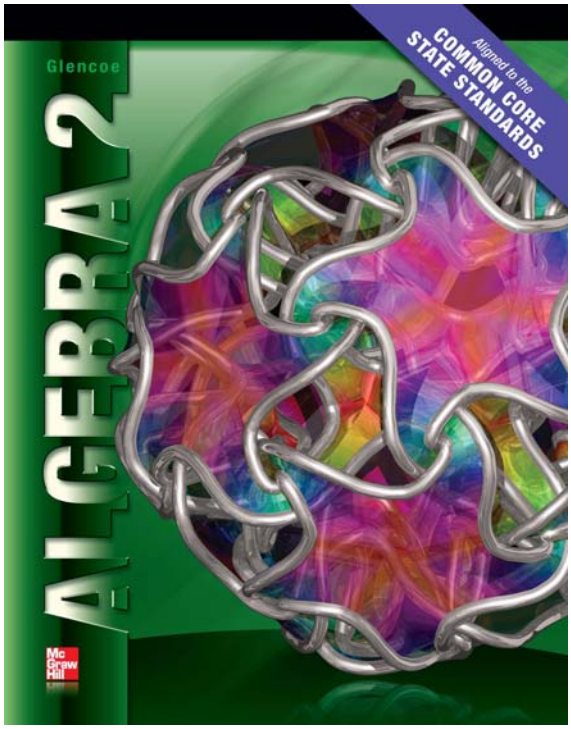
Glencoe

Mathematics Grade- and Course-Level Expectations (CLEs) V 2
Algebra 2

Missouri



REVERSE CORRELATION

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
Chapter 0	
0-1 Representing Functions	Algebraic Relationships 1.C, 1.D Geometric and Spatial Relationships 2.A
0-2 FOIL	Algebraic Relationships 2.A, 2.D
0-3 Factoring Polynomials	Algebraic Relationships 2.A, 2.D
0-4 Counting Techniques	Data and Probability 4.A
0-5 Adding Probabilities	Data and Probability 4.A, 4.B
0-6 Multiplying Probabilities	Data and Probability 4.A, 4.B

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
0-7 Congruent and Similar Figures	Number and Operations 3.E Geometric and Spatial Relationships 1.A, 4.B Measurement 1.B
0-8 The Pythagorean Theorem	Geometric and Spatial Relationships 1.A Measurement 2.B
0-9 Measures of Center, Spread, and Position	Data and Probability 2.A
Unit 1 Linear Relations and Functions	
Chapter 1 Equations and Inequalities	
1-1 Expressions and Formulas	Number and Operations 2.C, 2.D, 3.C Geometric and Spatial Relationships 4.A
1-2 Properties of Real Numbers	Number and Operations 1.A, 1.B, 2.C
1-3 Solving Equations	Number and Operations 1.B, 2.C, 3.C, 3.D Algebraic Relationships 2.C
1-4 Solving Absolute Value Equations	Number and Operations 1.B, 3.C, 3.D
1-5 Solving Inequalities	Number and Operations 2.C, 3.C, 3.D Algebraic Relationships 2.C Geometric and Spatial Relationships 4.B
1-6 Solving Compound and Absolute Value Inequalities	Number and Operations 1.B, 3.C, 3.D Geometric and Spatial Relationships 4.B

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
Chapter 2 Linear Relations and Functions	
2-1 Relations and Functions	Algebraic Relationships 1.D, 2.A
2-2 Linear Relations and Functions	Algebraic Relationships 1.A, 1.D, 2.A, 4.A
2-3 Rate of Change and Slope	Number and Operations 3.E Algebraic Relationships 1.A Measurement 2.E
2-4 Writing Linear Equations	Algebraic Relationships 1.D, 1.E
2-5 Scatter Plots and Lines of Regression	Algebraic Relationships 1.A, 1.B, 1.C, 2.A Data and Probability 2.C
2-6 Special Functions	Algebraic Relationships 1.D, 2.A, 3.A, 4.A Geometric and Spatial Relationships 4.B
2-7 Parent Functions and Transformations	Algebraic Relationships 1.E, 4.A Geometric and Spatial Relationships 3.B
2-8 Graphing Linear and Absolute Value Inequalities	Algebraic Relationships 1.C, 1.D, 1.E, 3.A, 4.A
Chapter 3 Systems of Equations and Inequalities	
3-1 Solving Systems of Equations	Algebraic Relationships 2.D Geometric and Spatial Relationships 4.B
3-2 Solving Systems of Inequalities by Graphing	Algebraic Relationships 2.D Geometric and Spatial Relationships 4.B

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
3-3 Optimization with Linear Programming	Algebraic Relationships 2.D Geometric and Spatial Relationships 4.B
3-4 Systems of Equations in Three Variables	Algebraic Relationships 2.A, 2.B, 2.D, 3.A Geometric and Spatial Relationships 4.A, 4.B
3-5 Operations with Matrices	Number and Operations 2.D Algebraic Relationships 2.B, 3.A
3-6 Multiplying Matrices	Number and Operations 2.D Algebraic Relationships 2.B, 3.A
3-7 Solving Systems of Equations Using Cramer's Rule	Number and Operations 2.D Algebraic Relationships 2.B, 3.A
3-8 Solving Systems of Equations Using Inverse Matrices	Number and Operations 2.D Algebraic Relationships 2.B, 3.A Geometric and Spatial Relationships 4.B
Unit 2 Quadratic, Polynomial, and Radical Functions and Relations	
Chapter 4 Quadratic Functions and Relations	
4-1 Graphing Quadratic Functions	Algebraic Relationships 1.D, 2.A Geometric and Spatial Relationships 1.A, 1.B, 2.A, 4.B
4-2 Solving Quadratic Equations by Graphing	Algebraic Relationships 1.D, 2.A Geometric and Spatial Relationships 1.A, 1.B, 2.A, 4.B

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
4-3 Solving Quadratic Equations by Factoring	Algebraic Relationships 1.D, 2.A Geometric and Spatial Relationships 1.A, 1.B
4-4 Complex Numbers	Number and Operations 2.D
4-5 Completing the Square	Algebraic Relationships 2.A Geometric and Spatial Relationships 1.A, 1.B
4-6 The Quadratic Formula and the Discriminant	Algebraic Relationships 2.A Geometric and Spatial Relationships 4.B
4-7 Transformations of Quadratic Graphs	Algebraic Relationships 1.E, 2.A Geometric and Spatial Relationships 3.B
4-8 Quadratic Inequalities	Number and Operations 3.E Algebraic Relationships 1.D, 2.A Geometric and Spatial Relationships 1.A, 1.B, 2.A, 4.B
Chapter 5 Polynomials and Polynomial Functions	
5-1 Operations with Polynomials	Number and Operations 2.A, 2.C, 3.E Algebraic Relationships 1.C, 1.E, 2.A, 2.D, 4.A
5-2 Dividing Polynomials	Number and Operations 2.A, 2.C Algebraic Relationships 1.C, 1.E, 2.A, 2.D Geometric and Spatial Relationships 2.A, 4.B

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
5-3 Polynomial Functions	Algebraic Relationships 1.C, 1.D, 1.E, 2.A, 2.D, 3.A, 4.A Geometric and Spatial Relationships 2.A, 4.B Measurement 2.E
5-4 Analyzing Graphs of Polynomial Functions	Algebraic Relationships 1.C, 1.D, 1.E, 2.A, 3.A, 4.A Geometric and Spatial Relationships 2.A, 4.B
5-5 Solving Polynomial Equations	Algebraic Relationships 1.D, 1.E, 2.A, 3.A, 4.A Geometric and Spatial Relationships 2.A, 4.B
5-6 The Remainder and Factor Theorems	Algebraic Relationships 2.A, 2.C Geometric and Spatial Relationships 2.A
5-7 Roots and Zeros	Algebraic Relationships 2.A, 2.C Geometric and Spatial Relationships 2.A
5-8 Rational Zero Theorem	Algebraic Relationships 1.C, 1.D Geometric and Spatial Relationships 1.A, 1.B
Chapter 6 Inverses and Radical Functions and Relations	
6-1 Operations on Functions	Algebraic Relationships 2.B, 3.A, 4.A Geometric and Spatial Relationships 2.A, 3.A, 3.B
6-2 Inverse Functions and Relations	Number and Operations 3.E Algebraic Relationships 1.D, 2.B, 3.A Measurement 1.B, 2.A

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
6-3 Square Root Functions and Inequalities	Number and Operations 3.C, 3.D, 3.E Algebraic Relationships 1.D, 2.B, 3.A Geometric and Spatial Relationships 4.B
6-4 *n*th Roots	Number and Operations 2.A, 2.B, 2.C, 2.D
6-5 Operations with Radical Expressions	Number and Operations 2.B, 2.C, 2.D Geometric and Spatial Relationships 4.B
6-6 Rational Exponents	Number and Operations 2.A, 2.C, 2.D, 3.E
6-7 Solving Radical Equations and Inequalities	Number and Operations 2.B, 2.C, 2.D Geometric and Spatial Relationships 4.B
Unit 3 Advanced Functions and Relations	
Chapter 7 Exponential and Logarithmic Functions and Relations	
7-1 Graphing Exponential Functions	Algebraic Relationships 1.D, 2.A, 4.A Geometric and Spatial Relationships 4.B
7-2 Solving Exponential Equations and Inequalities	Number and Operations 2.C, 2.D Algebraic Relationships 2.A Geometric and Spatial Relationships 4.B
7-3 Logarithms and Logarithmic Functions	Algebraic Relationships 1.D, 2.A, 4.A Geometric and Spatial Relationships 4.B

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
7-4 Solving Logarithmic Equations and Inequalities	Number and Operations 3.C, 3.D Algebraic Relationships 1.D, 2.A, 4.A
7-5 Properties of Logarithms	Number and Operations 2.C, 3.C, 3.D Algebraic Relationships 2.A
7-6 Common Logarithms	Number and Operations 2.C, 3.C, 3.D Geometric and Spatial Relationships 4.B
7-7 Base *e* and Natural Logarithms	Number and Operations 2.C, 3.C, 3.D Algebraic Relationships 1.D, 2.A Geometric and Spatial Relationships 4.B
7-8 Using Exponential and Logarithmic Functions	Algebraic Relationships 1.D, 2.A, 4.A Geometric and Spatial Relationships 4.B
Chapter 8 Rational Functions and Relations	
8-1 Multiplying and Dividing Rational Expressions	Number and Operations 3.E Algebraic Relationships 2.A, 2.B, 4.A Geometric and Spatial Relationships 1.A, 1.B
8-2 Adding and Subtracting Rational Expressions	Number and Operations 2.C, 2.D Algebraic Relationships 2.A, 2.B, 4.A
8-3 Graphing Reciprocal Functions	Algebraic Relationships 2.A Geometric and Spatial Relationships 2.A, 3.B

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
8-4 Graphing Rational Functions	Algebraic Relationships 1.D, 2.A Geometric and Spatial Relationships 2.A, 3.B
8-5 Variation Functions	Number and Operations 3.E Algebraic Relationships 1.D, 2.A
8-6 Solving Rational Equations and Inequalities	Number and Operations 3.C, 3.D, 3.E Algebraic Relationships 1.D, 2.A
Chapter 9 Conic Sections	
9-1 Midpoint and Distance Formulas	Algebraic Relationships 1.D, 2.A Geometric and Spatial Relationships 2.A, 4.B
9-2 Parabolas	Algebraic Relationships 3.A Geometric and Spatial Relationships 2.A, 3.B, 4.B
9-3 Circles	Algebraic Relationships 3.A Geometric and Spatial Relationships 2.A, 3.B, 4.B
9-4 Ellipses	Algebraic Relationships 3.A Geometric and Spatial Relationships 2.A, 3.B, 4.B
9-5 Hyperbolas	Algebraic Relationships 3.A Geometric and Spatial Relationships 2.A, 3.B, 4.B
9-6 Identifying Conic Sections	Algebraic Relationships 3.A Geometric and Spatial Relationships 2.A, 3.B, 4.B

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
9-7 Solving Linear-Nonlinear Systems	Algebraic Relationships 2.D Geometric and Spatial Relationships 4.B
Unit 4 Discrete Mathematics	
Chapter 10 Sequences and Series	
10-1 Sequences as Functions	Algebraic Relationships 1.A, 1.B, 1.C Geometric and Spatial Relationships 4.B
10-2 Arithmetic Sequences and Series	Algebraic Relationships 1.A, 1.B, 1.C
10-3 Geometric Sequences and Series	Algebraic Relationships 1.A, 1.B, 1.C
10-4 Infinite Geometric Series	Algebraic Relationships 1.A, 1.B, 1.C Measurement 2.D
10-5 Recursion and Iteration	Algebraic Relationships 1.A, 1.B, 1.C
10-6 The Binomial Theorem	Algebraic Relationships 1.C
10-7 Proof by Mathematical Induction	Number and Operations 3.C, 3.D Geometric and Spatial Relationships 1.A
Chapter 11 Statistics and Probability	
11-1 Designing a Study	Data and Probability 4.A
11-2 Distributions of Data	Data and Probability 1.C, 2.A, 4.A
11-3 Probability Distributions	Geometric and Spatial Relationships 4.B Data and Probability 1.C, 4.A

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
11-4 The Binomial Distribution	Data and Probability 1.C, 2.A, 2.C, 4.A
11-5 The Normal Distribution	Geometric and Spatial Relationships 4.B Data and Probability 1.C, 2.A
11-6 Confidence Intervals and Hypothesis Testing	Measurement 2.D Data and Probability 1.C
Unit 5 Trigonometry	
Chapter 12 Trigonometric Functions	
12-1 Trigonometric Functions in Right Triangles	Geometric and Spatial Relationships 1.A, 4.B Measurement 2.B, 2.C
12-2 Angles and Angle Measure	Geometric and Spatial Relationships 1.A, 1.B, 3.C, 4.B Measurement 2.B, 2.C
12-3 Trigonometric Functions of General Angles	Geometric and Spatial Relationships 4.B Measurement 2.B, 2.C
12-4 Law of Sines	Geometric and Spatial Relationships 4.B Measurement 2.B, 2.C
12-5 Law of Cosines	Geometric and Spatial Relationships 4.B Measurement 2.B, 2.C
12-6 Circular and Periodic Functions	Algebraic Relationships 2.A, 4.A Geometric and Spatial Relationships 4.B

CHAPTER/LESSON TITLES	GRADE-LEVEL EXPECTATIONS
12-7 Graphing Trigonometric Functions	Algebraic Relationships 1.C, 1.D Geometric and Spatial Relationships 4.B
12-8 Translations of Trigonometric Graphs	Geometric and Spatial Relationships 3.B, 4.B
12-9 Inverse Trigonometric Functions	Algebraic Relationships 1.C, 1.D, 2.B Geometric and Spatial Relationships 4.B
Chapter 13 Trigonometric Identities and Equations	
13-1 Trigonometric Identities	Number and Operations 2.C, 3.D Algebraic Relationships 2.A Measurement 1.B, 2.B, 2.C
13-2 Verifying Trigonometric Identities	Number and Operations 2.C, 3.D Measurement 1.B, 2.B, 2.C
13-3 Sum and Difference of Angles Identities	Geometric and Spatial Relationships 4.B Measurement 2.B, 2.C
13-4 Double-Angle and Half-Angle Identities	Measurement 2.B, 2.C
13-5 Solving Trigonometric Equations	Number and Operations 1.B, 2.C, 3.C, 3.D Algebraic Relationships 2.A Geometric and Spatial Relationships 4.B