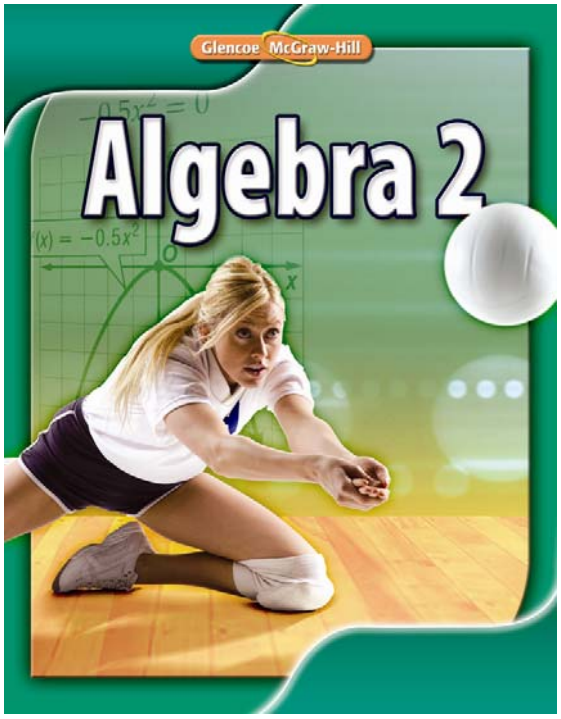
Glencoe

Math Grade 11
Assessment Anchors and
Eligible Content

Pennsylvania



Algebra 2

REVERSE CORRELATION

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
Unit 1 Linear Relations and Functions	
Chapter 1 Equations and Inequalities	
1-1 Expressions and Formulas	**M11.A Numbers and Operations** **M11.A.2.1.1** **M11.A.3.1.1** **M11.B Measurement** **M11.B.2.2.2**
1-2 Properties of Real Numbers	**M11.A Numbers and Operations** **M11.A.1.3.2** **M11.A.3.1.1**
1-3 Solving Equations	**M11.A Numbers and Operations** **M11.A.2.1.1** **M11.A.2.1.2** **M11.A.2.2.1** **M11.A.3.1.1** **M11.D Algebraic Concepts** **M11.D.2.1.3**

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
1-4 Solving Absolute Value Equations	**M11.A Numbers and Operations** **M11.A.2.2.1** **M11.C Geometry** **M11.C.3.1.1** **M11.D Algebraic Concepts** **M11.D.2.1.3**
1-5 Solving Inequalities	**M11.D Algebraic Concepts** **M11.D.2.1.1** **M11.D.2.1.2**
1-6 Solving Compound and Absolute Value Inequalities	**M11.C Geometry** **M11.C.3.1.1** **M11.D Algebraic Concepts** **M11.D.2.1.1**
Chapter 2 Linear Relations and Functions	
2-1 Relations and Functions	**M11.D Algebraic Concepts** **M11.D.1.1.2** **M11.D.1.1.3** **M11.D.2.1.2** **M11.D.3.1.2**
2-2 Linear Relations and functions	**M11.A Numbers and Operations** **M11.A.2.1.1** **M11.D Algebraic Concepts** **M11.D.1.1.2** **M11.D.2.1.2** **M11.D.3.2.2**
2-3 Rate of Change and Slope	**M11.A Numbers and Operations** **M11.A.2.1.1** **M11.A.2.1.3** **M11.D Algebraic Concepts** **M11.D.3.1.1** **M11.D.3.1.2** **M11.D.3.2.1** **M11.D.3.2.3** **M11.D.4.1.1**

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
2-4 Writing Linear Equations	**M11.A Numbers and Operations** **M11.A.2.1.2** **M11.C Geometry** **M11.C.3.1.2** **M11.D Algebraic Concepts** **M11.D.3.2.1** **M11.D.3.2.2** **M11.D.3.2.3**
2-5 Scatter Plots and Lines of Regression	**M11.A Numbers and Operations** **M11.A.3.2.1** **M11.D Algebraic Concepts** **M11.D.1.1.1** **M11.D.3.1.1** **M11.D.3.2.1** **M11.D.3.2.3** **M11.D.4.1.1** **M11.E Data Analysis and Probability** **M11.E.1.1.1** **M11.E.1.1.2** **M11.E.4.2.1** **M11.E.4.2.2**
2-6 Special Functions	**M11.D Algebraic Concepts** **M11.D.1.1.2** **M11.D.2.1.2** **M11.D.4.1.1**
2-7 Parent Functions and Transformations	**M11.C Geometry** **M11.C.3.1.2**
2-8 Graphing Linear and Absolute Value Inequalities	**M11.D Algebraic Concepts** **M11.D.2.1.1**
Chapter 3 Systems of Equations and Inequalities	
3-1 Solving Systems of Equations by Graphing	**M11.D Algebraic Concepts** **M11.D.2.1.2** **M11.D.2.1.4** **M11.D.3.1.2**

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
3-2 Solving Systems of Equations Algebraically	**M11.A Numbers and Operations** **M11.A.2.1.1** **M11.D Algebraic Concepts** **M11.D.2.1.2** **M11.D.2.1.4**
3-3 Solving Systems of Inequalities by Graphing	**M11.D Algebraic Concepts** **M11.D.2.1.2** **M11.D.2.1.4**
3-4 Optimization with Linear Programming	**M11.D Algebraic Concepts** **M11.D.2.1.4**
3-5 Systems of Equations in Three Variables	**M11.D Algebraic Concepts** **M11.D.2.1.2**
Chapter 4 Matrices	
4-1 Introduction to Matrices	**M11.E Data Analysis and Probability** **M11.E.1.1.1** **M11.E.1.1.2** **M11.E.4.1.1**
4-2 Operations with Matrices	**M11.E Data Analysis and Probability** **M11.E.1.1.2** **M11.E.4.1.1**
4-3 Multiplying Matrices	**M11.E Data Analysis and Probability** **M11.E.1.1.1** **M11.E.1.1.2**
4-4 Transformations with Matrices	**M11.C Geometry** **M11.C.1.2.3**
4-5 Determinants and Cramer's Rule	There are no state-mandated Algebra 2 Anchors for this topic.
4-6 Inverse Matrices and Systems of Equations	**M11.D Algebraic Concepts** **M11.D.2.1.2**
Unit 2 Quadratic, Polynomial, and Radical Functions and Relations	
Chapter 5 Quadratic Functions and Relations	
5-1 Graphing Quadratic Functions	**M11.D Algebraic Concepts** **M11.D.2.2.3** **M11.E Data Analysis and Probability** **M11.E.2.1.2**

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
5-2 Solving Quadratic Equations by Graphing	**M11.A Numbers and Operations** **M11.A.3.2.1**
5-3 Solving Quadratic Equations by Factoring	**M11.A Numbers and Operations** **M11.A.1.2.1** **M11.D Algebraic Concepts** **M11.D.2.1.5** **M11.D.2.2.2**
5-4 Complex Numbers	There are no state-mandated Algebra 2 Anchors for this topic.
5-5 Completing the Square	**M11.A Numbers and Operations** **M11.A.2.2.1** **M11.A.2.2.2**
5-6 The Quadratic Formula and the Discriminant	**M11.A Numbers and Operations** **M11.A.2.2.1** **M11.A.2.2.2**
5-7 Transformations with Quadratic Functions	There are no state-mandated Algebra 2 Anchors for this topic.
5-8 Quadratic Inequalities	**M11.D Algebraic Concepts** **M11.D.2.1.5**
Chapter 6 Polynomials and Polynomial Functions	
6-1 Operations with Polynomials	**M11.A Numbers and Operations** **M11.A.2.1.2** **M11.A.2.2.1** **M11.A.2.2.2** **M11.D Algebraic Concepts** **M11.D.2.2.1**
6-2 Dividing Polynomials	**M11.A Numbers and Operations** **M11.A.2.2.1** **M11.A.2.2.2**
6-3 Polynomial Functions	**M11.D Algebraic Concepts** **M11.D.2.1.2**
6-4 Analyzing Graphs of Polynomial Functions	**M11.D Algebraic Concepts** **M11.D.2.1.2**

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
6-5 Solving Polynomial Equations	**M11.B Measurement** **M11.B.2.2.4** **M11.D Algebraic Concepts** **M11.D.2.2.2**
6-6 The Remainder and Factor Theorems	**M11.D Algebraic Concepts** **M11.D.2.2.1**
6-7 Roots and Zeros	**M11.A Numbers and Operations** **M11.A.2.2.1** **M11.A.2.2.2**
6-8 Rational Zero Theorem	**M11.B Measurement** **M11.B.2.2.2**
Chapter 7 Inverses and Radical Functions and Relations	
7-1 Operations on Functions	**M11.D Algebraic Concepts** **M11.D.2.1.2** **M11.D.4.1.1**
7-2 Inverse Functions and Relations	**M11.D Algebraic Concepts** **M11.D.2.1.2** **M11.D.4.1.1**
7-3 Square Root Functions and Inequalities	**M11.A Numbers and Operations** **M11.A.1.1.1** **M11.A.1.1.3** **M11.D Algebraic Concepts** **M11.D.1.1.3** **M11.D.2.1.2**
7-4 *n*th Roots	**M11.A Numbers and Operations** **M11.A.1.1.1** **M11.A.1.1.3**
7-5 Operations with Radical Expressions	**M11.A Numbers and Operations** **M11.A.1.1.1** **M11.A.1.1.3**
7-6 Rational Exponents	**M11.A Numbers and Operations** **M11.A.2.2.1**
7-7 Solving Radical Equations and Inequalities	**M11.A Numbers and Operations** **M11.A.1.1.1** **M11.A.1.1.3**

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
Chapter 8 Exponential and Logarithmic Functions and Relations	
8-1 Graphing Exponential Functions	**M11.A Numbers and Operations** **M11.A.2.2.1**
8-2 Solving Exponential Equations and Inequalities	**M11.A Numbers and Operations** **M11.A.2.2.1**
8-3 Logarithms and Logarithmic Functions	There are no state-mandated Algebra 2 Anchors for this topic.
8-4 Solving Logarithmic Equations and Inequalities	There are no state-mandated Algebra 2 Anchors for this topic.
8-5 Properties of Logarithms	There are no state-mandated Algebra 2 Anchors for this topic.
8-6 Common Logarithms	There are no state-mandated Algebra 2 Anchors for this topic.
8-7 Base *e* and Natural Logarithms	**M11.A Numbers and Operations** **M11.A.2.2.1** **M11.A.2.2.2**
8-8 Using Exponential and Logarithmic Functions	**M11.A Numbers and Operations** **M11.A.1.1.2** **M11.A.2.1.3**
Chapter 9 Rational Functions and Relations	
9-1 Multiplying and Dividing Rational Expressions	**M11.A Numbers and Operations** **M11.A.1.2.1** **M11.D Algebraic Concepts** **M11.D.2.2.1** **M11.D.2.2.2** **M11.D.2.2.3**
9-2 Adding and Subtracting Rational Expressions	**M11.A Numbers and Operations** **M11.A.1.2.1** **M11.D Algebraic Concepts** **M11.D.2.1.2** **M11.D.2.2.3**
9-3 Graphing Reciprocal Functions	**M11.D Algebraic Concepts** **M11.D.1.1.3**
9-4 Graphing Rational Functions	**M11.D Algebraic Concepts** **M11.D.2.1.2**

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
9-5 Variation Functions	**M11.A Numbers and Operations** **M11.A.2.1.2** **M11.A.2.1.3**
9-6 Solving Rational Equations and Inequalities	**M11.A Numbers and Operations** **M11.A.2.1.1** **M11.A.3.1.1**
Chapter 10 Conic Sections	
10-1 Midpoint and Distance Formulas	**M11.C Geometry** **M11.C.3.1.1**
10-2 Parabolas	**M11.C Geometry** **M11.C.1.1.2**
10-3 Circles	**M11.C Geometry** **M11.C.1.1.1**
10-4 Ellipses	There are no state-mandated Algebra 2 Anchors for this topic.
10-5 Hyperbolas	There are no state-mandated Algebra 2 Anchors for this topic.
10-6 Identifying Conic Sections	**M11.C Geometry** **M11.C.1.1.2**
10-7 Solving Quadratic Systems	**M11.D Algebraic Concepts** **M11.D.2.1.4**
Unit 4 Discrete Mathematics	
Chapter 11 Rational Functions and Equations	
11-1 Sequences as Functions	**M11.D Algebraic Concepts** **M11.D.1.1.1**
11-2 Arithmetic Sequences and Series	**M11.D Algebraic Concepts** **M11.D.1.1.1**
11-3 Geometric Sequences and Series	**M11.D Algebraic Concepts** **M11.D.1.1.1**
11-4 Infinite Geometric Series	**M11.B Measurement** **M11.B.2.2.3**
11-5 Recursion and Iteration	**M11.D Algebraic Concepts** **M11.D.1.1.1**

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
11-6 The Binomial Theorem	**M11.C Geometry** **M11.C.1.2.1**
11-7 Proof by Mathematical Induction	There are no state-mandated Algebra 2 Anchors for this topic.
Chapter 12 Probability and Statistics	
12-1 Experiments, Surveys, and Observational Studies	**M11.E Data Analysis and Probability** **M11.E.4.1.1** **M11.E.4.1.2**
12-2 Statistical Analysis	**M11.E Data Analysis and Probability** **M11.E.2.1.1**
12-3 Conditional Probability	**M11.E Data Analysis and Probability** **M11.E.3.1.1** **M11.E.4.1.2**
12-4 Probability and Probability Distributions	**M11.E Data Analysis and Probability** **M11.E.3.1.1** **M11.E.3.1.2** **M11.E.4.1.2**
12-5 The Normal Distribution	**M11.A Numbers and Operations** **M11.A.2.1.1** **M11.E Data Analysis and Probability** **M11.E.4.1.2**
12-6 Hypothesis Testing	**M11.E Data Analysis and Probability** **M11.E.3.1.2** **M11.E.4.1.1**
12-7 Binomial Distributions	**M11.E Data Analysis and Probability** **M11.E.1.1.2** **M11.E.3.1.1**
Unit 5 Trigonometry	
Chapter 13 Trigonometric Functions	
13-1 Trigonometric Functions in Right Triangles	**M11.A Numbers and Operations** **M11.A.2.1.3** **M11.C Geometry** **M11.C.1.2.1** **M11.C.1.2.2** **M11.C.1.3.1**

CHAPTER/LESSON TITLES	COURSE-LEVEL EXPECTATIONS
13-2 Angles and Angle Measure	**M11.B Measurement** **M11.B.2.1.1** **M11.C Geometry** **M11.C.1.1.2**
13-3 Trigonometric Functions of General Angles	**M11.B Measurement** **M11.B.2.1.1**
13-4 Law of Sines	**M11.C Geometry** **M11.C.1.2.1** **M11.C.1.2.3**
13-5 Law of Cosines	**M11.C Geometry** **M11.C.1.2.1**
13-6 Circular Functions	There are no state-mandated Algebra 2 Anchors for this topic.
13-7 Graphing Trigonometric Functions	There are no state-mandated Algebra 2 Anchors for this topic.
13-8 Translations of Trigonometric Graphs	There are no state-mandated Algebra 2 Anchors for this topic.
13-9 Inverse Trigonometric Functions	There are no state-mandated Algebra 2 Anchors for this topic.
Chapter 14 Trigonometric Identities and Equations	
14-1 Trigonometric Identities	There are no state-mandated Algebra 2 Anchors for this topic.
14-2 Verifying Trigonometric Identities	There are no state-mandated Algebra 2 Anchors for this topic.
14-3 Sum and Difference of Angles Identities	There are no state-mandated Algebra 2 Anchors for this topic.
14-4 Double-Angle and Half-Angle Identities	There are no state-mandated Algebra 2 Anchors for this topic.
14-5 Solving Trigonometric Equations	There are no state-mandated Algebra 2 Anchors for this topic.