

R - Algebra Part 2

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Algebra I Part 2 is the second half of the Algebra I curriculum. This year begins where students left off in Algebra I Part 1. The class continues to move at a slower pace to give students the support that they need to not only be successful in mathematics but also to help them gain confidence in students' mathematical abilities. Algebra I Part 2 requires continual effort and attention. Expectations for students are to be and do their best everyday, however, it is very important that students seek help as soon as they are feeling confused, lost, or overwhelmed. Success in this course will better prepare students to reach more advanced topics in their high school math careers.

Graduation Standards

Standard 1 – Reason and model quantitatively, using units and number systems to solve problems.

Standard 2 – Interpret, represent, create and solve algebraic expressions.

Standard 3 – Interpret, analyze, construct, and solve linear, quadratic, and trigonometric functions.

Unit 5 Linear Inequalities

Summary Students will be able to solve compound inequalities and graph their solutions. Students will be able to solve absolute value equations and inequalities in one variable and graph their solution on a number line. Students will be able to graph inequalities into variables on a coordinate plane. This unit will have a strong emphasis on the application of inequalities and absolute value on application to real-world problems.

Performance Indicators Assessed in Unit
S2: G. Create equations that describe numbers or relationships. (A.CED.A)
S2: I. Solve equations and inequalities in one variable. (A.REI.B)
S2: K. Represent and solve equations and inequalities graphically. (A.REI.D)

Unit 6 Systems of Linear Equations and Inequalities

Summary Students will be introduced to systems of linear equations and inequalities. They learn how to solve by graphing systems of equations and inequalities, and classify the systems as consistent or inconsistent, dependent or independent. Students also learn how to apply algebraic methods including, substitution, elimination, using addition and subtraction, and elimination using multiplication. Students will create equations and inequalities that model real-world data, and determine which method is best to solve the system.

Performance Indicators Assessed in Unit
S2: H. Understand solving equations as a process of reasoning and explain the reasoning. (A.REI.A)
S2: J. Solve systems of equations. (A. REI.C.5-7)
S2: K. Represent and solve equations and inequalities graphically. (A.REI.D)

Unit 7 Exponents and Quadratic Expressions/Equations

Summary Students will be algebraically manipulating quadratic equations to reveal key features of the related function. Students will first learn about polynomials and operations involving monomials and polynomials. They will also solve the quadratic equations for their roots by factoring, completing the square, and using the quadratic formula.

Performance Indicators
S2: A. Interpret the structure of expressions. (A.SSE.A)
S2: B. Write expressions in equivalent forms to solve problems. (A.SSE.B)

Assessed in Unit	<p>S2: C. Perform arithmetic operations on polynomials. (A.APR.A)</p> <p>S2: D. Understand the relationship between zeros and factors of polynomials. (A.APR.B)</p> <p>S2: E. Use polynomial identities to solve problems. (A.APR.C.4)</p> <p>S2: F. Rewrite rational expressions. (A. APR.D.6)</p> <p>S2: I. Solve equations and inequalities in one variable. (A.REI.B)</p> <p>S2: J. Solve systems of equations. (A. REI.C.5-7)</p> <p>S2: K. Represent and solve equations and inequalities graphically. (A.REI.D)</p>
Unit 8	Quadratic Functions and Equations
Summary	Students will be identifying and interpreting key features of quadratic functions. They will be able to manually graph a quadratic function, and in addition graph using technology. They will also graph systems of linear and quadratic functions. Students will then explore transformations on a coordinate plane of a quadratic function. They will be algebraically manipulating quadratic equations to reveal key features of the related function. Students will first learn about polynomials and operations involving monomials and polynomials. They will also solve the quadratic equations for their roots by factoring, completing the square, and using the quadratic formula.
Performance Indicators Assessed in Unit	<p>S2: A. Interpret the structure of expressions. (A.SSE.A)</p> <p>S2: B. Write expressions in equivalent forms to solve problems. (A.SSE.B)</p> <p>S2: C. Perform arithmetic operations on polynomials. (A.APR.A)</p> <p>S2: D. Understand the relationship between zeros and factors of polynomials. (A.APR.B)</p> <p>S2: E. Use polynomial identities to solve problems. (A.APR.C.4)</p> <p>S2: F. Rewrite rational expressions. (A. APR.D.6)</p> <p>S2: I. Solve equations and inequalities in one variable. (A.REI.B)</p> <p>S2: J. Solve systems of equations. (A. REI.C.5-7)</p> <p>S2: K. Represent and solve equations and inequalities graphically. (A.REI.D)</p> <p>S3: B. Interpret functions that arise in applications in terms of the context. (F.IF.B)</p> <p>S3: C. Analyze functions using different representations. (F.IF.C.7A-C,E,8-9)</p> <p>S3: E. Build new functions from existing functions. (F.BF.B.3,4A)</p>

Summative Assessments Retake

- Students have the opportunity to retake summative assessments.
- The student must submit a retake form to the teacher within five (5) school days of the date that the summative assessment score is reported to the student.
- The highest score a student can receive on a retake or late assessment is a 75.
- The score achieved on a retake will replace the current score (even if the score is lower).
- If a student is making up a test from an absence, that assessment will be graded up to 100.

Grading of Formative Assessments

- Formative assessments will count as 20% of the grade.
- Formative assessments may be scored on either a 0-100 scale or a 0-4 scale.
- The 0-4 scale will be represented in Power School as 4=100, 3=87, 2=77, and 1=67.
- The method of scoring of formative assessments will be determined by assignment.