



# Integrated **2** Mathematics

*correlated to the*

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# Idaho Content Standards *Algebra II*



**McDougal Littell**  
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correlated to the

**Idaho**  
**Content Standards**  
***Algebra 2***

**STANDARD 1: NUMBER AND OPERATION**

**Goal 1.1:** *Understand numbers, ways of representing numbers, relationships among numbers and number systems.*

*Objective(s): By the end of Algebra II, the student will be able to:*

**AII.1.1.1** Compare and contrast the properties of numbers and number systems within the complex number system to include rational, irrational and imaginary numbers.

**PE/TE:** 224-229, 237, 402-405, 522-525, 534, 621, 642-644, 647-648

**AII.1.1.2** Demonstrate meaning of complex numbers as solutions to polynomial equations that do not have real solutions.

**PE/TE:** 224-229, 237, 512, 621

**AII.1.1.3** Represent powers using logarithms.

**PE/TE:** N/A

**AII.1.1.4** Recognize matrices as a method of arranging data.

**PE/TE:** 151-153, 156-158, 160-164, 165, 172, 181

**AII.1.1.5** Know that matrices have some of the properties of the real number system.

**PE/TE:** 152-155, 165-170

**AII.1.1.6** Develop an understanding of the properties of logarithmic expressions and expressions with rational numbers.

**PE/TE:** 508-509, 511

**Goal 1.2:** *Understand meanings of operations and how they relate to one another.*

*Objective(s): By the end of Algebra II, the student will be able to:*

**AII.1.2.1** Develop an understanding of the properties of, and representations for, the addition, subtraction and multiplication of matrices.

**PE/TE:** 152-155, 165-173, 181, 609-611

**Goal 1.3:** *Compute fluently and make reasonable estimates.*

*Objective(s): By the end of Algebra II, the student will be able to:*

**AII.1.3.1** Use the properties of real numbers to simplify expressions.

**PE/TE:** 402-405, 425, 641-642

**AII.1.3.2** Perform computations with matrices.

**PE/TE:** 152-158, 160-164, 165-173, 174-179, 181, 268, 272, 609-611, 619

**AII.1.3.3** Add, subtract, multiply and divide radical expressions.

**PE/TE:** 215-216, 226, 490-493, 537-538, 642-643

**AII.1.3.4** Perform computations with complex numbers.

**PE/TE:** 225-229, 237, 621

**AII.1.3.5** Perform computations with logarithmic expressions and expressions with rational exponents.

**PE/TE:** 100-104, 617

**STANDARD 2: CONCEPTS AND PRINCIPLES OF MEASUREMENT**

**Goal 2.1:** *Understand measurable attributes of objects and the units, systems and processes of measurement.*

*Objective(s): By the end of Algebra II, the student will be able to:*

**AII.2.1.1** Recognize the relationship between radian and degree measures.

**PE/TE:** *N/A*

**Goal 2.2:** *Apply appropriate techniques, tools and formulas to determine measurements.*

*No objectives at this course level.*

**STANDARD 3: CONCEPTS AND LANGUAGE OF ALGEBRA AND FUNCTIONS**

**Goal 3.1: *Understand patterns, relations and functions.***

*Objective(s): By the end of Algebra II, the student will be able to:*

**AII.3.1.1** Represent patterns and functional relationships in a table and as a graph.

**PE/TE:** 65-66, 69, 71-73, 77-78, 80-81, 91, 95, 98, 107-111, 115, 187, 189-193, 198, 201, 211-213, 217, 237-238, 526, 528, 530-535, 541-542, 545, 551-552

**AII.3.1.2** Describe the graph of a quadratic equation and discuss its attributes in terms of the basic concepts of maximum, minimum, intercepts and roots.

**PE/TE:** 187-192, 96-198, 201, 203, 620

**AII.3.1.3** Graph and analyze the graph of an absolute value equation and its characteristics.

**PE/TE:** N/A

**AII.3.1.4** Understand and represent transformations by using sketches, coordinates and function notation.

**PE/TE:** 159-164, 197, 268-273, 662-664

**Goal 3.2: *Represent and analyze mathematical situations and structures using algebraic symbols.***

*Objective(s): By the end of Algebra II, the student will be able to:*

**AII.3.2.1** Write equations and inequalities in multiple forms.

**PE/TE:** 68-74, 78-81, 83, 106-111, 115, 127, 219-220, 229, 237, 371-372, 508-511, 519, 523, 542, 545-547, 550, 654

**AII.3.2.2** Solve equations and inequalities and systems of equations and inequalities.

**PE/TE:** 68-73, 80, 83, 85-90, 93, 95-98, 100-112, 114-115, 121-128, 129-134, 141-149, 181, 199-205, 206-213, 214-221, 225-229, 230-235, 237-238, 402-406, 520-525, 527, 537-540, 550, 616-617, 643-647

**AII.3.2.3** Perform operations on simple rational expressions.

**PE/TE:** 508-509, 511, 520-525, 527, 550

**Goal 3.3: *Use mathematical models to represent and understand quantitative relationships.***

*No objectives at this course level.*

**Goal 3.4: *Analyze change in various contexts.***

*Objective(s): By the end of Algebra II, the student will be able to:*

**AII.3.4.1** Interpret how changes to an equation affect the parent graph of the equation.

**PE/TE:** 70, 72, 92, 94

**STANDARD 4: CONCEPTS AND PRINCIPLES OF GEOMETRY**

**Goal 4.1:** *Analyze characteristics and properties of two- and three- dimensional geometric shapes and develop mathematical arguments about geometric relationships.*

*Objective(s): By the end of Algebra II, the student will be able to:*

**AII.4.1.1** Use trigonometric relationships to determine lengths and angle measures.

**PE/TE:** 491-496, 499, 659-660

**Goal 4.2:** *Specify locations and describe spatial relationships using coordinate geometry and other representational systems.*

**AII.4.2.1** Analyze the graphs of circles and parabolas.

**PE/TE:** 92, 187-193, 237, 592-594, 596-597, 620

**Goal 4.3:** *Apply transformations and use symmetry to analyze mathematical situations.*

*No objectives at this course level.*

**Goal 4.4:** *Use visualization, spatial reasoning and geometric models to solve problems.*

*No objectives at this course level.*

**STANDARD 5: DATA ANALYSIS, PROBABILITY AND STATISTICS**

**Goal 5.1:** *Collect, organize and display data using a variety of formats.*

*No objectives at this course level.*

