

WARREN COUNTY SCHOOL DISTRICT

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Algebra I Honors

Course Number: 00202

Course Prerequisites: Completion of Advanced Mathematics – Grade 7 or Math 7 (a final average of at least 85%). Students who qualify will take a standardized placement test. Placement test results along with final average in the class will be used to determine placement into Algebra I Honors.

Course Description: Honors Algebra I is a course designed for those students able to complete calculus prior to entering college. This course provides an intense study of algebraic theory that will be expanded in Algebra II Honors, Geometry Honors, and additional advanced math courses (3 or 4 credits in high school are required). Honors Algebra I is intended for college-bound students who have an aptitude or interest in mathematics. It provides them with the opportunity to complete an additional year of advanced mathematics. **Keystone Exams are required of all students who take any Algebra I course, in addition to the PSSAs, for graduation. Students must pass the Algebra I Keystone Exam with a Proficient or Advanced score to move onto Honors Algebra II.** Even though high school credit is not awarded, by passing the Keystone exam, students will be fulfilling a requirement for graduation.
A district-wide final exam is required.
Students must maintain 80% to remain in Honors Algebra I.

Suggested Grade Level: Grade 8

Length of Course: Two Semesters

Units of Credit: 1

PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:

CSPG #50

To find the CSPG information, go to [CSPG](#)

Certification verified by the WCSD Human Resources Department: Yes No

WCSD STUDENT DATA SYSTEM INFORMATION

Course Level: Academic

Mark Types: Check all that apply.

F – Final Average MP – Marking Period EXM – Final Exam

GPA Type: GPAEL-GPA Elementary GPAML-GPA for Middle Level NHS-National Honor Society

UGPA-Non-Weighted Grade Point Average GPA-Weighted Grade Point Average

State Course Code: 02052

To find the State Course Code, go to [State Course Code](#), download the Excel file for SCED, click on SCED 6.0 tab, and chose the correct code that corresponds with the course.

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TEXTBOOKS AND SUPPLEMENTAL MATERIALS

Board Approved Textbooks, Software, and Materials:

Title: Algebra 1 A Common Core Curriculum
Publisher: Big Ideas
ISBN #: 9781642087185
Copyright Date: 2019
WCSD Board Approval Date: 6/29/2020

Supplemental Materials: [Click or tap here to enter text.](#)

Curriculum Document

WCSD Board Approval:
Date Finalized: 6/5/2020
Date Approved: 6/29/2020
Date(s) Revised: 1/11/2021
Implementation Year: 2020-2021

SPECIAL EDUCATION, 504, and GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (IEP), Chapter 15 Section 504 Plan (504), and/or Gifted Individual Education Plan (GIEP).

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PLANNED INSTRUCTION

SCOPE AND SEQUENCE OF CONTENT, CONCEPTS, AND SKILLS

Performance Indicator	PA Core Standard and/or Eligible Content	Month Taught and Assessed for Mastery
Solving equations by addition or subtraction	CC.2.2.HS.D.8, CC.2.2.HS.D.9	September Choose an item.
Solving equations by multiplication or division	CC.2.2.HS.D.8, CC.2.2.HS.D.9	September Choose an item.
Solving a two-step equation	CC.2.2.HS.D.8, CC.2.2.HS.D.9	September Choose an item.
Combining like terms to solve an equation	CC.2.2.HS.D.8, CC.2.2.HS.D.9	September Choose an item.
Using structure to solve a multi-step equation	CC.2.2.HS.D.8, CC.2.2.HS.D.9	September Choose an item.
Solving equations with variables on both sides	CC.2.2.HS.D.8, CC.2.2.HS.D.9	September Choose an item.
Identifying the number of solutions of an equations	CC.2.2.HS.D.8, CC.2.2.HS.D.9	October Choose an item.
Solving absolute value equations	CC.2.2.HS.D.8, CC.2.2.HS.D.9, CC.2.2.HS.D.10	September Choose an item.
Writing absolute value equations	CC.2.2.HS.D.8, CC.2.2.HS.D.9	September Choose an item.
Solving equations with two absolute values	CC.2.2.HS.D.8, CC.2.2.HS.D.9	September Choose an item.
Identifying extraneous solutions to absolute value equations	CC.2.2.HS.D.10	September Choose an item.
Rewriting literal equations	CC.2.2.HS.D.8	September Choose an item.
Solving problems involving uniform motion	CC.2.2.HS.D.8, CC.2.2.HS.D.10	September Choose an item.
Solving problems involving mixtures	CC.2.2.HS.D.8, CC.2.2.HS.D.10	September Choose an item.
Solving problems involving angles	CC.2.2.HS.D.8, CC.2.2.HS.D.10	September Choose an item.
Writing inequalities	CC.2.2.HS.D.10	September October
Checking solutions to inequalities	CC.2.2.HS.D.10	September October
Graphing inequalities	CC.2.2.HS.D.10	September October
Writing inequalities from graphs	CC.2.2.HS.D.10	September October
Solving inequalities using addition	CC.2.2.HS.D.10	September October
Solving inequalities using subtraction	CC.2.2.HS.D.10	September October
Solving inequalities by multiplying or dividing by positive numbers	CC.2.2.HS.D.10	September October
Solving inequalities by multiplying or dividing by negative numbers	CC.2.2.HS.D.10	September October

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Solving multi-step inequalities	CC.2.2.HS.D.10	September October
Solving inequalities with variables on both sides	CC.2.2.HS.D.10	September October
Solving inequalities with special solutions	CC.2.2.HS.D.10	September October
Writing compound inequalities	CC.2.2.HS.D.10	September October
Graphing compound inequalities	CC.2.2.HS.D.10	September October
Solving compound inequalities with “and”	CC.2.2.HS.D.10	September October
Solving compound inequalities with “or”	CC.2.2.HS.D.10	September October
Solving absolute value inequalities	CC.2.2.HS.D.10	September October
Determining whether relations are functions	CC.2.2.8.C.1, CC.2.2.HS.C.2	October November
Using the vertical line test	CC.2.2.HS.C.2	October November
Finding the domain from a graph	CC.2.2.HS.C.2	October November
Finding the range from a graph	CC.2.2.HS.C.2	October November
Identifying independent and dependent variables	CC.2.2.HS.C.2	October November
Identifying linear functions using graphs	CC.2.2.HS.C.2, CC.2.2.HS.C.3	October November
Identifying linear functions using tables	CC.2.2.HS.C.2, CC.2.2.HS.C.3	October November
Identifying linear functions using equations	CC.2.2.HS.C.2, CC.2.2.HS.C.3	October November
Graphing discrete data	CC.2.2.HS.C.2	October November
Graphing continuous data	CC.2.2.HS.C.2	October November
Evaluating a function	CC.2.2.8.C.1, CC.2.1.HS.C.2	October November
Interpreting function notation	CC.2.2.8.C.1, CC.2.2.HS.C.1, CC.2.2.HS.C.6	October November
Solving for an independent variable	CC.2.2.HS.C.6	October November
Graphing a linear function in function notation	CC.2.2.HS.C.2, CC.2.2.HS.C.2	October November
Graphing equations of horizontal and vertical lines	CC.2.2.HS.C.2	October November
Using intercepts to graph linear equations	CC.2.2.8.B.2, CC.2.2.HS.C.2	October November
Finding the slope of a line	CC.2.2.8.B.2	October November
Identifying slopes and y-intercepts	CC.2.2.8.B.2	October November

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Performance Indicator	PA Core Standard and/or Eligible Content	Month Taught and Assessed for Mastery
Using slope-intercept form to graph	CC.2.2.8.B.2	October November
Graphing $g(x)= x + k$ and $g(x) = x-h $	CC.2.2.HS.C.2	October November
Using slopes and y-intercepts to write equations in slope-intercept form	CC.2.2.8.B.2	November December
Using graphs to write equations in slope-intercept form	CC.2.2.8.B.2	November December
Using points to write equations in slope-intercept form	CC.2.2.8.B.2	November December
Writing linear functions in slope-intercept form	CC.2.2.8.B.2	November December
Using a slope and a point to write equations in point-slope form	CC.2.2.8.B.2	November December
Using two points to write in equation in point-slope form	CC.2.2.8.B.2	November December
Writing a linear function in point-slope form	CC.2.2.8.B.2	November December
Identifying parallel lines	CC.2.2.8.B.2	November December
Writing equations of parallel lines	CC.2.2.8.B.2	November December
Identifying parallel and perpendicular lines	CC.2.2.8.B.2	November December
Writing equations of perpendicular lines	CC.2.2.8.B.2	November December
Interpreting a scatter plot	CC.2.4.8.B.1, CC.2.4.HS.B.2, CC.2.4.HS.B.3	November December
Identifying correlations	CC.2.4.8.B.1, CC.2.4.HS.B.2, CC.2.4.HS.B.3	November December
Finding a line of fit	CC.2.4.8.B.1, CC.2.4.HS.B.2, CC.2.4.HS.B.3	November December
Solving a system of linear equations by graphing	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Solving a system of linear equations by substitution	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Solving a system of linear equations by elimination by multiplying first	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Solving a system with no solution	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Solving a system of infinitely many solutions	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Using two variables to solve word problems	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Solving wind and water current word problems	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Solving digit problems	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Graphing linear inequalities in one variable	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.

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Graphing linear inequalities in two variables	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Graphing a system of linear inequalities	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Graphing a system of linear inequalities with no solution	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Writing a system of linear inequalities	CC.2.2.8.B.3, CC.2.2.HS.D.10	January Choose an item.
Applying properties of exponents	CC.2.2.8.B.1, CC.2.1.HS.F.1, CC.2.2.HS.D.2	February Choose an item.
Finding the degrees of monomials	CC.2.2.HS.D.2	February March
Writing a polynomial in standard form	CC.2.2.HS.D.2	February March
Classifying polynomials	CC.2.2.HS.D.2	February March
Adding polynomials	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Subtracting polynomials	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Multiplying binomials by binomials	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Multiplying binomials by trinomials	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Using the square of a binomial pattern	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Using the sum and difference pattern	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Using special product patterns	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Solving polynomial equations using zero product property	CC.2.2.HS.D.2, CC.2.2.HS.D.3, CC.2.2.HS.D.5	February March
Solving polynomial equations using GCF	CC.2.2.HS.D.2, CC.2.2.HS.D.3, CC.2.2.HS.D.5	February March
Factoring $x^2 + bx + c$ when b and c are positive	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Factoring $x^2 + bx + c$ when b is negative and c is positive	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Factoring $x^2 + bx + c$ when c is negative	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Factoring $ax^2 + bx + c$ when ac is positive	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Factoring $ax^2 + bx + c$ when ac is negative	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Factoring $ax^2 + bx + c$ when a is negative	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Factoring the difference of two squares	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Evaluating numerical expressions using difference of squares	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March

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Factoring perfect square trinomials	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Factoring by grouping	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Factoring completely	CC.2.2.HS.D.2, CC.2.2.HS.D.3	February March
Solving equations by factoring completely	CC.2.2.HS.D.2, CC.2.2.HS.D.3, CC.2.2.HS.D.5	February March
Identifying and analyzing angles in polygons	CC.2.3.8.A.2	March Choose an item.
Identifying and analyzing angle relationships	CC.2.3.8.A.2	March Choose an item.
Using volume and surface area formulas	CC.2.3.8.A.1	March Choose an item.
Understanding and applying the Pythagorean Theorem	CC.2.3.8.A.3	March Choose an item.
Understanding transformations	CC.2.3.8.A.2	March Choose an item.
Comparing the measures of center	CC.2.4.HS.B.2	March April
Removing an outlier	CC.2.4.HS.B.2	March April
Finding a range	CC.2.4.HS.B.1	March April
Finding a standard deviation	CC.2.4.HS.B.2	March April
Making a box-and-whisker plot	CC.2.4.HS.B.1	March April
Interpreting a box-and-whisker plot	CC.2.4.HS.B.1	March April
Comparing box-and-whisker plots	CC.2.4.HS.B.3	March April
Finding and interpreting marginal frequencies	CC.2.4.HS.B.1	March April
Making a two-way table	CC.2.4.HS.B.2	March April
Finding relative frequencies	CC.2.4.HS.B.1	March April
Finding conditional relative frequencies	CC.2.4.HS.B.1	March April
Recognizing associations in data	CC.2.4.HS.B.3	March April
Classifying data	CC.2.4.HS.B.5	March April
Choosing and creating a data display	CC.2.4.HS.B.2	March April
Analyzing misleading graphs	CC.2.4.HS.B.2	March April
More factoring practice	CC.2.2.HS.D.2, CC.2.2.HS.D.3	April Choose an item.
Simplifying radicals	CC.2.2.8.B.1, CC.2.2.HS.F.1	May Choose an item.

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Algebra 1 Keystone Test Prep	Click or tap here to enter text.	April May
The following are optional topics if time permits		
More simplifying radicals	CC.2.2.8.B.1, CC.2.2.HS.F.1	May Choose an item.
More factoring	CC.2.2.HS.D.2, CC.2.2.HS.D.3	May Choose an item.

ASSESSMENTS

PSSA Academic Standards, Assessment Anchors, and Eligible Content: The teacher must be knowledgeable of the PDE Academic Standards, Assessment Anchors, and Eligible Content and incorporate them regularly into planned instruction.

Formative Assessments: The teacher will utilize a variety of assessment methods to conduct in-process evaluations of student learning.

Effective formative assessments for this course include: Including but not limited to: Bell Ringers, Class Discussion, Worksheets, Cooperative Learning, Centers, Observations, Self-evaluations, peer-evaluations, Oral response, Projects and Exit Tickets

Summative Assessments: The teacher will utilize a variety of assessment methods to evaluate student learning at the end of an instructional task, lesson, and/or unit.

Effective summative assessments for this course include: Including but not limited to: Performance assessments, Chapter/Unit Tests, Quizzes, and Projects