Utica High School
Math 1
Mr. Sichina (107)

Course Description

Extends the student's proficiency in the use of estimation, percentages, measurement, algebraic concepts, data analysis, probability, and problem solving.

Grading Policy

Each student's grade will be determined by the following criteria:

- Tests   100pts each

- Quizzes   20-50 pts each

- Homework   5-10 pts each

➢ Students may retake tests and quizzes as many times as they need to if they are not satisfied with their grade. All classwork and homework must be completed to retake a test or quiz. Classwork and homework will be checked daily but will not be taken for a grade every day.

➢ For a yearlong course there will be 2 semester exams each worth 10% of the total grade, and 4 - nine week grades each worth 20% of total grade. Final grade will be based on a weighted average in which the student must have a 60% or higher to earn credit for the course .

Grading Scale:
90 – 100 = A
80 – 89 = B
70 – 79 = C
60 – 69 = D
0 – 59   = F

Class Rules:
Be Respectful
Be Prepared
Be on time
Be Attentive
School rules will be enforced

Class Procedures

1. Make sure your name, the date, and the class period are on all assignments.
2. Place assignments in the class tray when turning them in.
3. Focus during class discussion and work on assignments when time
   is given.
4. Mr. Sichina dismisses class, not the bell.

Attendance

Tardiness: Students are expected to arrive on time for class. A student who has been tardy to class for a third time in a grading period will receive a lunch detention and will be reported to the office. The fourth tardy receives a Wednesday detention. A fifth tardy in a grading period receives a referral to the office for a Saturday School, In-School Suspension, or Suspension.

Absences: Make up work due to an excused absence must be made up promptly. The time allotted for makeup work shall not exceed one day more than the period of absence. **It is the responsibility of the pupil to arrange for and to complete the necessary work.** Work missed trough truancy or unexcused absence cannot be accepted for credit.

Homework Policy

* Homework assignments will not always be collected for a grade. If a homework assignment is given, completion of the assignment is required. This is practice that will help them succeed on the tests.

Testing Policy

* Students are able to retest for any chapter test given after the student has completed the necessary remediation. This could include but is not limited to completing homework assignments that were not finished throughout the chapter, reteaching sessions to cover important skills, or completing alternate assignments as necessary.

Cheating

* Cheating includes: plagiarism, copying someone else's work or allowing
   someone to copy your work.
* First offense receives a zero on the assignment, quiz or test.
* Second Offense will be reported to the office and disciplinary action will take
   place.

Attendance Policy

Per Grading period: Any student that accumulates more than 4 nonprofessional absences during a grading period will be given a zero for each day after that they are absent, during the same grading period.

Course Outline

Chapter 1: Algebra Toolbox

Section 1.1	Variables and Expressions • variable, coefficient, constant, substitute, evaluate
Section 1.2	Writing Algebraic Expressions • plus, add, sum, more than, increased by, subtract, difference, less than, decreased by, times, multiplied by, product, divided by, divided into, quotient
Section 1.3	Solving Equations by Adding or Subtracting • equation, solve, solution, inverse operation, isolate the variable, Addition Property of Equality, Subtraction Property of Equality
Section 1.4	Solving Equations by Multiplying or Dividing • Division Property of Equality, Multiplication Property of Equality
Section 1.5	Solving Simple Inequalities • inequality, algebraic inequality, solution of an equality, solution set
Section 1.6	Combining Like-Terms • term, like term, equivalent expression, simplify
Section 1.7	Ordered Pairs
Section 1.8	Graphing on a Coordinate Plane • coordinate plane, x-axis, y-axis, x-coordinate, y-coordinate, origin, graph of an equation
Review	
Test	

Chapter 2: Integers

Section 2.1	Adding Integers • integer, opposite, absolute value
Section 2.2	Subtracting Integers • "add the opposite"
Section 2.3	Multiplying and Dividing Integers
Section 2.4	Solving Equations Containing Integers
Section 2.5	Solving Inequalities Containing Integers
Section 2.6	Exponents • power, exponential form, exponent base
Section 2.7	Properties of Exponents

Section 2.8	Negative Exponents
Section 2.9	Scientific Notation
Review	
Test	

Chapter 3: Rational and Real Numbers

Section 3.1	Rational Numbers • rational number, relatively prime
Section 3.2	Adding and Subtracting Rational Numbers
Section 3.3	Multiplying Rational Numbers
Section 3.4	Dividing Rational Numbers • reciprocal
Section 3.5	Adding and Subtracting with Unlike Denominators
Section 3.6	Solving Equations with Rational Numbers
Section 3.7	Solving Inequalities with Rational Numbers
Section 3.8	Squares and Square Root • principal square root, perfect square
Section 3.9	Finding Square Roots
Section 3.10	The Real Numbers • irrational number, real number, Density Property
Review	
Test	

Chapter 5: Plane Geometry

Section 5.1	Points, Lines, Planes, and Angles • point, line, plane, segment, ray, angle, right angle, acute angle, obtuse angle, complementary angle, supplementary angles, congruent, vertical angles
Section 5.2	Parallel and Perpendicular Lines • parallel lines, perpendicular lines, transversal
Section 5.3	Triangles • Triangle Sum Theorem, acute triangle, right triangle, obtuse triangle, equilateral triangle, isosceles triangle, scalene triangle
Section 5.4	Polygons • polygon, regular polygon, trapezoid, parallelogram, rectangle, rhombus, square
Section 5.5	Coordinate Geometry • slope, rise, run
Section 5.6	Congruence • correspondence
Section 5.7	Transformations • transformation, translation, rotation, center of rotation, reflection, image
Review	

Test	

Chapter 6: Perimeter, Area, and Volume

Section 6.1	Perimeter and Area of Parallelograms and Rectangles • perimeter, area
Section 6.2	Perimeter and Area of Triangles and Trapezoids
Section 6.3	The Pythagorean Theorem • Pythagorean Theorem, leg, hypotenuse
Section 6.4	Circles • circle, radius, diameter, circumference
Section 6.6	Volume of Prisms and Cylinders • prism, cylinder
Section 6.7	Volume of Cones and Pyramids • pyramid, cone
Section 6.8	Surface Area of Prisms and Cylinders • surface area, lateral face, lateral surface
Section 6.9	Surface Area of Cones and Pyramids • slant height, regular pyramid, right cone
Section 6.10	Spheres • sphere, hemisphere, great circle
Review	
Test	

Chapter 7: Ratios and Similarity

Section 7.3	Analyze Units • conversion factor
Section 7.4	Solving Proportions • cross product
Section 7.5	Dilations • dilation, scale factor, center of dilation
Section 7.6	Similar Figures • similar
Review	
Test	

Chapter 8 Percents

Section 8.1	Relating Decimal, Fractions, and Percents • percent
Section 8.2	Finding Percents
Section 8.3	Finding a Number When the Percent is Known
Section 8.4	Percent Increase and Decrease • percent change, percent increase, percent decrease
Section 8.6	Applications of Percents • commission, commission rate, sales tax, withholding tax

Section 8.7	More Applications of Percents
	• interest, simple interest, principal, rate of interest
Review	
Test	

Chapter 10: More Equations and Inequalities

Section 10.1	Solving Two-Step Equations
Section 10.2	Solving Multistep Equations
Section 10.3	Solving Equations with Variables on Both Sides
Section 10.4	Solving Multistep Inequalities
Section 10.5	Solving for a Variable
Section 10.6	Systems of Equations
	• system of equations, solution of a system of equations
Review	
Test	

Chapter 11: Graphing Lines

Section 11.1	Graphing Linear Equation
	• linear equation
Section 11.2	Slope of a Line
Section 11.3	Using Slopes and Intercepts
	• x-intercept, y-intercept, slope-intercept form
Section 11.4	Point-Slope Form
	• point-slope form
Section 11.6	Graphing Inequalities in Two Variables
	• boundary line, linear inequality
Review	
Test	

Chapter 12: Sequences and Functions

Section 12.4	Functions
	• function, input, output, domain, range
Section 12.5	Linear Functions
	• linear function
Section 12.6	Exponential Functions
	• exponential function, exponential growth, exponential decay
Section 12.7	Quadratic Functions
	• quadratic function, parabola
Review	
Test	

Chapter 13: Polynomials

Section 13.1	Polynomials

	• monomial, polynomial, binomial, trinomial, degree of a polynomial
Section 13.2	Simplifying Polynomials
Section 13.3	Adding Polynomials
Section 13.4	Subtracting Polynomials
Section 13.5	Multiplying Polynomials by Monomials
Section 13.6	Multiplying Binomials • FOIL
Review	
Test	

Chapter 4: Collecting, Displaying, and Analyzing Data

Section 4.1	Sample and Surveys • population, sample, biased sample, random sample, systematic sample, stratified sample
Section 4.2	Organizing Data • stem-and-leaf plot, back-to-back stem-and-leaf plot
Section 4.3	Measures of Central Tendency • mean, median, mode, outlier
Section 4.4	Variability • variability, range, quartile, box-and-whisker plot
Section 4.5	Displaying Data • bar graphs, frequency table, histogram, line graph
Section 4.6	Misleading Graphs
Section 4.7	Scatter Plots • scatter plot, correlation, line of best fit
Review	
Test	

Chapter 9: Probability

Section 9.1	Probability • experiment, trial, outcome, sample space, event, probability, impossible, certain
Section 9.4	Theoretical Probability • theoretical probability, equally likely, fair, mutually exclusive
Section 9.5	The Fundamental Counting Principle • Fundamental Counting Principle, tree diagram
Section 9.6	Permutations and Combinations • factorial, permutation, combination
Section 9.7	Independent and Dependent Events • independent events, dependent events
Review	
Test	