Intensive Math

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A class designed to pass the Algebra EOC state requirement

The purpose of this class is to enable students to develop mathematics skills and concepts through remedial instruction and practice.

Class Expectations

Every student is expected to be in class on time. School policy will be followed regarding tardiness. Most work in class will be done independently, focusing on only the element of Algebra that needs attention to pass the EOC. Therefore, an element of maturity and self-motivation will be expected. Without the seriousness needed to learn, the student cannot be helped. Therefore, I expect all of my students to come in with class supplies and a focus on learning in order to pass the EOC and get transferred out of my class. Come to work, or don't come.

Class Supplies

No scientific calculators will be allowed in this class. Only 4 function calculators. There are the cheap, dollar calculators. Paper, Pencil. That's it. But you must bring it every day for a grade.

Textbook

There is no specific text book for this class. We are all resources available in order to help students be successful on the Algebra I EOC exam. Students who find better ways of explaining concepts are welcome to present and will be awarded extra credit if the presentation is viewed as helpful by the class. Introducing a problem to the class with real-world tie-in will be viewed as progress toward a standard and recorded in your data folder as such.

Grading Policy

Classwork/Homework	40%
Progress toward individual goal	20%
Test	40%

Most work is done in the classroom. Each student will set their own individual goals that will be recorded and tracked in an individual data folder that is kept in the classroom. As long as they are making progress toward their goal, pacing through their standards, and coming to class ready to work, they will get an A in my class. Work done outside the classroom is done when there have been multiple absences or when a particular standard has been difficult to master and needs extra practice.

Class Content

- Describe the concept of a function, use function notation, determine whether a given relation is a function, and link equations to functions
- Determine the domain and range of a relation
- Solve linear equations in one variable that include simplifying algebraic expressions
- Solve literal equations for a specified variable
- Solve and graph simple and compound inequalities in one variable, and be able to justify each step in a solution
- Symbolically represent and solve multi-step and real-world applications that involve linear equations and inequalities
- Graph a line given any of the following information: a table of values, the x- and y-intercepts, two points, the slope and a point, the equation of the line in slope-intercept form, standard form, or point-slope form.
- Determine the slope, x-intercept, and y-intercept of a line given its graph, its equation, or two points on the line.
- Write an equation of a line given any of the following information: two points on the line, its slope and one point on the line, or its graph. Also, find an equation of a new line parallel to a given line, or perpendicular to a given line, through a given point on the new line.
- Write an equation of a line that models a data set, and use the equation or the graph to make predictions. Describe the slope of the line in terms of the data, recognizing that the slope is the rate of change.
- Solve systems of linear equations and inequalities in two and three variables using graphical, substitution, and elimination methods.
- Simplify monomials and monomial expressions using the laws of integral exponents.
- Add, subtract, and multiply polynomials
- Factor polynomial expressions.
- Divide polynomials by monomials and polynomials with various techniques, including synthetic division.
- Solve algebraic proportions
- Add, subtract, multiply, and divide radical expressions (square roots and higher).
- Graph quadratic equations with and without graphing technology
- Solve quadratic equations over the real numbers by factoring and by using the quadratic formula.
- Perform set operations such as union and intersection, complement, and cross product.
- Use Venn diagrams to explore relationships and patters and to make arguments about relationships between sets.