

Algebra I

Algebra is the key course for High School Math. We will cover a wide variety of skills and concepts to prepare students for Geometry, Trigonometry, Calculus, as well as Biology, Chemistry, and Physics. In addition to the Common Core Standards for High School Algebra, we will work on the Standards of Mathematical Practice throughout the year. These are:

1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning.

The content and standards for this course are very rigorous. Please expect to work toward mastery of the material and to utilize the supports that are offered early and often to accomplish our academic goals.

Course Outline

First Semester

- () Foundations for Algebra () Solving Equations () Solving Inequalities () Introduction to Functions () Linear Functions
- () Systems of Equations and Inequalities

Second Semester

() Exponents and Exponential Functions () Polynomials and Factoring () Quadratic Functions and Equations () Radical Expressions and Equations () Rational Expressions and Functions () Data Analysis and Probability

Grading

Assignment grades are based on two factors: quantity (whether or not the assignments are complete) and quality (whether or not the assignments demonstrate effort toward understanding and improving). Only complete, high-quality assignments will receive full credit. Any score that is lower than you would like can be improved by improving the work on that assignment. Grades are also weighted for this course. For more information on grading look at the chart below.

Grading Scale			Percentage Weighting
100 - 90% 89 - 80% 79 - 70% 69 - 60% 59% and below	A B C D	Exceeded Expectations / Almost Perfect Proficient Nearing Proficient Beginning Steps Incomplete / Absent / Missing	 Assignments 40% Attendance/Participation 10% Assessments 50% Attendance each day is an important part of being able to achieve consistent and uninterrupted growth in mathematics. It is vital that students are present and on time each day.

Assessments: All assessments must be taken/retaken until the score is 80% or higher. If a student does not achieve a score of 80% or higher, they may be required to attend Targeted Assistance (8th period) 2 or more days per week until that assessment is completed.

*go to attendance and late work policies

Attendance/Late Work

Attendance: Attendance is based on a combination of physical presence and meaningful engagement with the learning opportunities each week (participation). These span the entirety of the class period and of the school week. On-time student attendance is expected and will be noted through Powerschool.

Late work: My expectation is that all assignments will be completed and turned in on time. I also understand that stuff happens. For this reason, you will have an opportunity to turn in assignments late without penalty. To do so requires contacting me before the due date is passed and informing me of your plan for getting the work completed and when it will be submitted.

Students can also fix or finish previous assignments in order to improve the grade (including exams). Be sure to send a message to Mr Doug once you have completed an already-graded assignment so that he will know to regrade it.

The deadline to complete work is the end of each quarter's grading period.

Online Work Expectations

It is my expectation that you are attempting to complete all of the assigned work and getting whatever help you need whenever you are having trouble doing so, as well as making sure all turned in work is your own original thinking and effort.

IXL.com Math Solver Apps/Websites When to Get Help Students are not expected to achieve expertise on their own, but Every student has an account. Any work done while Websites and Apps that provide solutions to everyone has different needs. Learning how to identify the signs that you need to get help can be a challenge, so here are some "red not signed in is not recorded. problems are typically ineffective as a learning tool. flags" to watch out for. Any one of these should trigger your effort to Since our goal is for students to have complete get some help: Assignments are posted as "suggested topics". They More than 30 minutes on an IXL topic learning and not for students to have complete More than 20 questions on an IXL topic can be found on the recommendations page and by assignments, utilizing a solver app/website will result More than 4 attempts on a Khan Academy assignment clicking on the Math tab. in having the assignment reset to 0 so that it can be To get help, students should ask questions in class, work with a completed with a possibility of improving the partner, email the teacher, or post a message in our Google Students should work on a topic until they reach a Classroom student's understanding. SmartScore of **80 or higher** for full credit. Partial *THE ONLINE PLATFORMS ARE FOR PRACTICE AND TO HELP credit is given for lower scores. All assessments will be taken in "locked mode" so that STUDENTS REMEMBER WHAT TO DO. They are not intended to effectively teach, reteach, or explain, so do not spend too much solver websites cannot be opened during the test. time "being stuck" in your online work.

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Contact Information

Email: <u>dfeery@paparts.org</u>

You can also contact me by commenting on a Post in our Stream or by sending a private comment on an assignment.

If you need to speak with me over the phone, email me a phone number and a time and I will call you.

Zoom conferences can be scheduled by contacting me.

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Our Google Classroom Page You should sign into our Google Classroom page every day at the beginning of class. The stream will have announcements, assignments will be posted, and all class materials can be found here.

*next resource

Textbook: Algebra 1 Assignments from the textbook will always be collaborative, in-class assignments. Getting the wrong answer is a sign that you need extra help or practice before you leave class that day.

Website www.ixl.com

This website will be a primary resource for assignments.

Each student has their own account.

Assignments do not need to be "submitted." All work can be viewed in real time and reviewed by the teacher without any action from the student.

*Next resource

Website www.khanacademy.org

This resource will be used to help students achieve mastery of the material. Assignments need to be completed through this site in addition to the assignments done through our Google Classroom and IXL.com.

Current assignments are on the "Active" page and previous assignments are on the "Past" page.

Website www.brainbashers.com

This website features a variety of logic puzzles. Logic is the basis of mathematical reasoning, so improving your use of logic will help your understanding of math. There are puzzles from beginner through advanced levels.

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I am extremely grateful to have joined this community of learners. My door is always open to students, parents, and families to ensure everyone's success in this class. Email is the best way to reach me and I will make every effort to be prompt about replying.

Expectations for students: I expect students to actively participate in their own instruction. Have a question? Ask it. Need help? Get it. Have an assignment? Do it. Bomb a test? Retake it. Want to avoid bombing a test? Study for it. Google some help. Trade numbers with other students to be able to call each other for information or help. **Participate in lessons and** discussion. Do the things. All of them.

Expectations for Mr. Doug: You should expect respect, professionalism, and support at all times. **Customer satisfaction is a** priority, and the students and their families are my customers. You should expect timely responses to all inquiries, timely feedback on progress toward learning goals, and sufficient information for all students to be successful. Please bring any needs you have to my attention early so that I may address them.

About My Teaching

Mr Doug is focused around helping students achieve a deep conceptual understanding of the material. The goal is for students to be able to engage in the content in a way that is more than just a reproduction of a learned procedure. As such, they will receive instruction around metacognition, educational psychology, and learning practice as tools to support their mathematical work. I will rely heavily on direct work with expanding each student's Zone of Proximal Development by utilizing the Engagement Strategies below and on work that draws from Webb's Depth of Knowledge levels (primarily level 2 and above).

Mr Ruedig is co-teaching this class and will provide supplemental assistance to any students experiencing difficulty or needing help with the class. My goal is to enable everyone to pass this class and demonstrate mastery of the material sufficient to proceed further in their mathematical education. I am trained and experienced in physical manipulables and outdoor education and one-on-one tutoring, and will use those to engage students and enable them to deeply comprehend the concepts and skills we have before us.

Students will be instructed on how and when to apply these strategies in the classroom. They are a resource for each student to ensure they are adequately participating in their own instruction.

- () Restate () Table Talk ()Over the Edge ()Sample Problem () Define
- () Build on PK () Specific Question () Question Feedback