THE BEACON SCHOOL
NEW YORK CITY DEPARTMENT OF EDUCATION
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ESTABLISHED IN 1993

Algebra 1 Syllabus

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Letter to Students
Before anything else, let me welcome you to Algebra 1 at Beacon! High school algebra 1 will formalize and extend the mathematics you learned in middle school. You will deepen and extend your understanding of linear and exponential relationships by contrasting them with each other, and you will engage in methods for analyzing, solving, and using quadratic functions. Our studies will focus on four critical areas:
1. Relationships Between Quantities and Reasoning with Equations
2. Linear and Exponential Relationships
3. Expressions and Equations
4. Quadratic Functions and Modeling

You probably know from your experience in school that you learn best when you understand the concepts and are actively engaged in the learning process. Our class is designed so that you can be actively engaged as you learn algebra. You will "learn by doing." You will make sense of important algebraic concepts, learn essential algebraic skills, and explore how to apply algebra to real-life problems. This approach is both challenging and fun, and will make you believe in your ability to succeed at mathematics. Rather than memorizing theorems and formulas, you will learn the how's and why's of mathematics.

This class will be unlike any other math class you have taken. Some concepts will be challenging. It is perfectly acceptable to be unable to solve a new problem or have difficulty understanding a new concept. However, it is *never* acceptable to give up. By working through challenges, you will discover the inherent reward of learning higher level mathematics!

Please read and review this *entire* syllabus. Please sign the last page and have a parent/guardian sign it as well. Please return it to me no later than **Wednesday, September 10th**. If your parent/guardian would like to speak with me, please let them know that they are more than welcome to send a note with you, e-mail me, or call me. Your education and your ideas are very important to me, so feel free to talk to me anytime.

I look forward to a fun and fruitful year working with you. Thank you for your support and cooperation.

Sincerely,

Ms. Lozada

Important Information
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- Return signed contract by Wednesday, September 10th.
- Bring a binder, dividers, and graph loose leaf ASAP.
- Beginning TODAY, September 5th, you will have nightly homework.

Goals for the year
- To develop the skill of using evidence to support arguments in discussion and develop the communication and collaboration skills that support college a career readiness
- To engage in activities that are both cognitively challenging and accessible with the aim of building persistence through new or challenging tasks

Scope and Sequence*

Unit Title	Overview of Unit
Foundations of Algebra	You will learn how to represent quantities, patterns, and relationships.
Solving Equations	You will learn how equations that appear to be different can be equivalent, how to solve equations, and what kinds of relationships proportions represent.
Solving Inequalities	You will learn how to represent relationships between quantities that are not equal, how inequalities that appear difference can be equivalent, how to solve inequalities.
An Introduction to Functions	You will how to represent and describe functions, and how functions can describe real-world situations.
Linear Functions	You will learn what the slope of a line indicates about the line, what information the equation of a line gives you, and how to make predictions based on a scatter plot.
Systems of Equations and Inequalities	You will learn how to solve a system of equations or inequalities, and how systems of equations model real-world situations.
PBA Mid-Term Exam (Late January)	
Exponents and Exponential Functions	You will learn how to represent numbers less than one using exponents, how to simplify expressions involving exponents, and the characteristics of exponential functions.
Polynomials and Factoring	You will learn how two algebraic expressions that appear to be different can be equivalent, and how properties o real numbers relate to polynomials.
Quadratic Functions and Equations	You will learn the characteristics of a quadratic functions, how to solve a quadratic function, and how to use functions to model real-world situations.
PBA Project (Late March-Early May)	
Radical Expressions and Equations	You will learn how radical expressions are represented, the characteristics of square root functions, and how to solve a radical equation.
Rational Expressions and Functions	You will learn how rational expressions are represented, the characteristics of rational functions, and how to solve a rational equation.
PBA Final Exam (Mid-June)	

*Note: Scope and Sequence is subject to change

Plagiarism & Cheating
Plagiarism and cheating is unacceptable and will not be tolerated. Any evidence of plagiarism and/or cheating will result in a grade of zero on that assignment with absolutely no opportunity for a make up.

Grading

For each unit, you will be given a set of Learning Targets. 95% of your grade will be based on how well you meet each learning target. You can demonstrate your mastery of a learning target through your work graded on the following scale:

> 10% Homework
> 10% Performance Tasks/Projects
> 20% Quizzes
> 20% Semester Final Exam
> 35% Tests

All of these learning targets and their work components will be given <u>at the beginning of each Unit</u>. In addition to your mastery of the content, you will also be graded on:

> 5% Preparation and Participation (including classwork and attendance)

You *participate* by being engaged in the learning activities (i.e. actively taking notes and completing classwork), contributing to a positive learning environment by following all protocols, and you are *prepared* with your notes and pencil out and ready at the start of class. ***ALL YOUR WORK MUST BE DONE IN PENCIL!*** Only work in pencil will be accepted.

Your grades will be readily available to you on engrade.com. Students, you will receive an e-mail invitation during the first week of school. Parents, please write your e-mail address and phone number on the detachable back page and I will send you an e-mail invitation as well.

Homework

<u>You will have nightly homework</u>. Homework will **always** be due the following class period, unless otherwise specified. Homework must always be completed neatly in your binder on a clean page in pencil. **NO LATE HOMEWORK** will be accepted. If you are late to class, then your homework is late and will not be accepted so get to class ON TIME. If you are absent, you must be ready to turn in all homework that was due while you were absent on the day you return to class to your team folder.

Homework will be graded as a check plus (✓+), check (✓), or check minus (✓-).
✓+ (110%) = you have complete **all** the assigned problems with all correct solutions, shown all your work, have problems neatly written out and organized, and written any questions you may have at the end of the assignment. This work is above and beyond.
✓ (100%) = you have completed the assignment adequately, some work may be missing, but it is completed to the best of your ability with **all** problems attempted. Any questions are written out and every problem has some work shown.
✓- (50%) = you have not completed the assignment, problems are missing, work is missing, and is generally disorganized or illegible.

Attendance and Lateness

You must attend class promptly everyday. If you are late or absent, then you are missing an important learning opportunity. It is *your* responsibility to get the notes from a peer outside of class, collect any missed papers from your team folder, and make-up any work during tutoring. If you miss an exam day, then you will take the exam the next day you attend school in tutoring.

Tutoring
Tutoring bands are TBA. I highly encourage you to attend tutoring whenever you would like some individual attention or extra help; however, you MUST come to tutoring prepared with a problem or questions so our time together is efficient and productive. If you would like to meet at another time, please e-mail me at least 24 hours in advance.

Performance Based Assessments (PBA's)
PBA's allow you to demonstrate your mastery of fundamental concepts through examinations and projects. For Algebra 1, you are expected to meet PBA requirements composed of:
- Two semester final examinations
- One course project assigned and assessed through the year based on the Mathematics Department rubric

The components of your PBA will also be included in your semester grade. This means that your grades on each semester final and the course project will count *twice*! Remember that PBA's at Beacon are in lieu of the New York State Regents examination so take your PBAs very *very* seriously.

Materials
For this class, you will need:
- A pencil
- A red pen
- A highlighter
- A centimeter ruler
- Loose leaf graph paper
- A 1" 3-ring binder
- 5 3-ring binder dividers
- 1 ream of paper (+5 bonus pts for one extra ream)
- Recommended: TI-84 Plus Graphing Calculator

You are responsible for bringing all your materials to class each and every day.

Food in the Classroom
In accordance with Beacon policy, there is no food or drink in this classroom. Only bottles of water are allowed. Any food or drink not permitted will be confiscated.

Cell Phones & Electronics
According to school and district policy, cell phones and other electronic devices are **not allowed** in the building. They will be confiscated immediately.

Bathroom
Only one student at a time may use the restroom. NO students are permitted to go to the bathroom during the Warm Up, when the teacher is giving notes or instructions, or during the final ten minutes of class. To go to the bathroom during work time, you must raise your hand and wait patiently for me to come to you. You are allowed ONE bathroom visit per quarter.

Classroom Culture and Behavior
Algebra is exciting, yet challenging so it is crucial that you hold *yourself* and *your peers* to the utmost level of respect, responsibility, and academic perseverance. We are in this together, and you are responsible for any infractions of classroom rules. Behavior problems will not be tolerated and will be dealt with immediately. Let's work together to create a great environment for exploring math.

Student and Parent Contract for Ms. Lozada's Algebra 1 class

I am aware that:

1. I am expected to adhere to all classroom rules, and noncompliance of any kind will not be tolerated.

2. Inappropriate language and demeaning behavior will not be tolerated.

3. I am expected to come to every class prepared and ready to learn. I have my homework complete, notebook ready, and a pencil in hand.

4. I am expected to work to try my hardest and work to the best of my ability. All assignments will be turned in promptly and complete, knowing that I have given my best effort.

5. Taking risks and participating are encouraged. I should not be afraid to ask appropriate questions. I will learn the most by being *actively* involved in my learning.

6. Mostly importantly, everything I do or say in the classroom should help create a positive learning environment. I will work hard, help others and never be afraid to try!

By signing below, I agree to follow all the rules and expectations of both Ms. Lozada and Beacon High School. I am aware of the consequences and rewards for all my actions. I will contribute positively to the learning environment in my classroom.

_____
Student Name

_____   _____
Student Signature   Date

_____   _____
Parent Signature   Date

_____   _____
Parent e-mail   Parent Phone Number