

Class: Algebra 1

Time: M/T/W/R/F room :422

Teacher: Ms. Tsiklauri and Ms. Dixon

Email: Ms Tsiklauri: NTsiklauri@schools.nyc.gov or ntsiklauri@aenyc.org (I prefer this one)

Classroom expectations:

- 1) Start on time / Complete the daily attendance question
- 2) Wear your mask and maintain a 6 feet distance with anyone in the room.
- 3) Only one person allowed to leave the room at a time, no bathroom 10 minutes at the beginning or at the end of class.
- 4) One Mic, raise your hand, listen actively
- 5) Be open to the learning process
- 6) Participate in class discussions and procedures.
- 7) Respect classmates, teacher and yourself.
- 8) Be responsible for your actions.
- 9) Ask questions when needed.

Materials

A Graphing calculator (TI-83 or 84)

A notebook (for your own use)

3-hole binder (for your own use)

Pencils (for your own use)

Quiz/test

There will be a weekly quiz. There will be a test at the end of each unit and at the end of each marking period.

Homework:

Homework will be given daily. Homework will be graded based on completion and effort. Home will be called if failure to complete homework.

Academic Honesty:

Acts of academic dishonesty (e.g. plagiarism, cheating on examinations, and obtaining unfair advantage) are regarded as serious offenses against the values of intellectual honesty. This will not be tolerated.

Course Overview:

Topics introduced in algebra 1 provide the foundations student require for future success in high school mathematics, critical thinking and problem solving. Algebra 1 topics include recognizing and developing patterns using tables, graphs, and equations. In addition, students will explore

operations on algebraic expressions; apply mathematical properties to algebraic equations. Students will solve problems using equations, graphs and tables to investigate relationships. After completing this course, students will have gained the mathematical skills and a deeper understanding of various topics they will be tested on during the Algebra 1 Common Core Regents.

Course outline:

<u>Unit 1 Algebra Basics</u> 1) Real number systems 2) Properties of real numbers 3) Introduction to polynomials 4) Order of operations 5) Evaluating expressions 6) Combining like terms 7) Translating expressions	<u>Unit 2 solving equations and inequalities</u> 1) Translating equations 2) Solving two step equations 3) Solving Two-Step Equations 4) Solving & Graphing Two-Step Inequalities 5) • Translate & Solve	<u>Unit 3 Functions and relations</u> Relations, Domain, Range Functions vs. Relations Graphing Functions Function Tables Function Notation Analyzing Graphs Arithmetic Sequences	<u>Unit 4 Linear functions</u> 1) Slope from a Graph & Slope Formula 2) Slope-Intercept Form vs. Standard Form 3) Graphing Linear Equations (Slope-Intercept Form) 4) Graphing Linear Equations (X- and Y-Intercepts) 5) Vertical and Horizontal Lines 6) Writing Linear Equations given Point & Slope 7) Writing Linear Equations given Two Points
<u>Unit 5: Systems of equations</u> • Solving Systems of Equations by Graphing • Solving Systems of Equations by Substitution • Solving Systems of Equations by Elimination • Comparing Methods to Solving Systems • Word Problems • Solving Systems by Matrices**	<u>Unit 6: Exponential Functions</u> Characteristics of Exponential Functions Exponential Growth and Decay Linear and Exponential Comparisons	<u>Unit 7: Quadratic Functions</u> Operations with Polynomials Factoring Polynomials Defining and Graphing quadratics equations Solving Quadratic Equations	<u>Unit 9: Statistics</u> Statistics Overview: Measures of Center • Box-and- Whisker Plots, Stem-and-Leaf Plots, Histograms • Statistics on the Calculator Scatter Plots Line of Best Fit Linear Regression

Grading policy : Quizzes/Exams 35% Classwork / notebook/Homework 35% Participation 30% Grade A 93%-100% B 85%-92% C 75%-84% D 65%-74% F Bellow 64%
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