



Syllabus: Algebra 1 2023-2024

Teacher/Instructor: Ms. Khanum

Welcome to Ms. Khanum's Algebra 1 class! This course follows the New York State Next Generation Algebra 1 curriculum, which prepares students for the Algebra 1 Regent Exam. In this course, students will implement mathematical reasoning and evaluation, which guide them to solve Algebraic math problems. In addition, students will learn how to relate Algebra to their everyday life.

The units which we will cover in this course are:

Content focus: Seeing Structure in Expressions

Unit 1: Foundations for Algebra

- ✓ What we are learning: variables and expressions, order of operations, properties and operation of real numbers, the distributive property, patterns, equations, and graphs.

Content focus: Reasoning with Equations and Inequalities

Unit 2: Solving Equations

- ✓ What we are learning: Solving one, two, and multi-step equations, Solving equations variables on both sides, literal equations and formulas, ratio, rate, and conversations, solving proportions, proportions, and similar figures, percentages, and change expressed as percent.

Unit 3: Solving Inequalities

- ✓ What we are learning: inequalities and their graphs, solving one-step and multi-steps inequalities by applying adding, subtraction, multiplication, and

division, working with sets, compound inequalities, absolute value equations and inequalities, union and intersection of sets.

Unit 4: An introduction to Functions

- ✓ What we are learning: using Graphs to relate two quantities, patterns in linear and non-linear functions, graphing and writing function rules, formalizing relations and functions, and arithmetic sequences.

Content focus: Interpreting and Building Functions

Unit 5: Linear Functions

- ✓ What we are learning: rate of change and slope, direct variation, slope-intercept form, point-slope form, standard form, parallel and perpendicular lines, scatter plots and trend lines, graphing absolute value functions.

Unit 6: System of equations and inequalities

- ✓ What we are learning: solving systems by graphing, using substitution, and using elimination, application of linear systems, linear inequalities, and system of linear inequalities.

Supplies for this course: A graphing calculator, notebook, graph papers, pencils, erasers, and a ruler.

Grading for Algebra 1 Course

| <u>Classwork</u> | <u>Test & Quizzes</u> | <u>Homework</u> | <u>Participation</u> | <u>Daily Behavior</u> |
|------------------|---------------------------|-----------------|----------------------|-----------------------|
| <u>35%</u> | <u>20%</u> | <u>5%</u> | <u>20%</u> | <u>20%</u> |

Where to find us!!

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