# Algebra I

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| Instructor | Ms. Lopez | Phone | 510-370-3334 |
| Office | Room 3/Office | E-mail | Melisa@silveroakmontessori.org |
| Office Hours | 4:00pm-4:30pm or upon request |  | Quarter 4 |

### Text:

McDougal Little, Algebra 1

### Description:

This course is designed to emphasize the study of multiple representations of linear and non-linear functions.  It includes mathematical concepts for working with rational numbers, various expressions, analyzing and solving linear equations & inequalities, data analysis, probability, statistics, and polynomials.  Students will use hands-on materials and calculators when needed in solving problems where the algebra concepts are applied.  Students who complete Algebra I should take Geometry next.

### Essential Understanding:

Real world situations can be represented symbolically and graphically. Algebraic expressions and equations generalize relationships from specific cases. A problem solver understands what has been done, knows why the process was appropriate, and can support it with reasons and evidence. There can be different strategies to solve a problem, but some are more effective and efficient than others are. The context of a problem determines the reasonableness of a solution. The ability to solve problems is the heart of mathematics.

### General Guidelines:

## Lessons:

Lessons will be given throughout the class depending on the math level that you are in. You will have multiple lessons a week. If you are struggling with a concept it is your responsibility to review the lesson and ask questions. **It is a requirement to come to the lesson area and take notes**. I will be checking your notebook, making sure you are taking notes for credit. If you are absent on one of the days that there is a lesson it is your responsibility to get the notes either from google classroom or a peer.

## Individual Work:

33.33% of your grade is based on completing the assignments that will be assigned to you after every lesson. All assignments will be out of 10 points and assignments will be collected every week (Fridays)or otherwise told by me. Use your class time properly, if you do not understand the individual work it is a good time for you to ask help from either your peers or me. **You must show work to receive full credit.**

## Group Work:

33.33% of your grade is based on completing and participating in group work. You must communicate with your group and do the group work together. If your team completes the group work however, you did not participate you will be getting no credit for that assignment. **You will not be able to make up any group work**.

## Final/Assessments:

33.33% of your grade is based on assessments and your final**. You will be able to use a 3 X 5 index card during the assessments and final.** You must make at least 70% to ‘pass’ the assessment. If you do not pass an assessment you may choose to retake a similar assessment however, you will not be allowed to use notes. You may also do test corrections for half of the remaining of the credit missed. You will not be able to make up the final exam nor make corrections on the final exam.

## Late Policy:

You will be able to make up any work if you have an **excused absent** for full credit and will be given extra days equal to the amount of days missed. If you need an extension you must complete the extension form which includes your parent signature and mine. If I see that you are not using your class time properly you will not be given the extended time. If you get the extended time you will be able to receive full credit. If you turn in your assignment late without an extension you will be given a 7 out of 10 (C).

### Goals:

Solving Linear Equations

Exponents properties

### Requirements:

(Group Activity)

### Resources:

Touring with Mr. Niemann, Ms. Sun, or myself

Khan Academy

### Course Schedule:

| Week | Guiding Question | Topic | Individual Work |
| --- | --- | --- | --- |
| April 9th-April 13th  | **Before you solved system of linear equations by graphing, what other ways would you be able to solve linear equations?** | **-7.2 Solve Linear Systems by Substitution** -**7.3 Solve Linear Systems by Adding or Subtracting**  | **Vocabulary:**-System of linear equations **DUE: Monday April 9th** **7.2 (P. 439 #’s 3-19 odds)****7.3 (P. 447 #’s 3-21 odds)****DUE: Friday April 13th at 4:30pm** |
| April 16th-April 20th  |  | -**7.4 Solve Linear Systems by Multiplying First**  | **Vocabulary:**-Least Common Multiple **DUE: Tuesday April 17th** **7.4 (P. 454 #’s 3-19 odds)****DUE: Friday April 20th**  |
| QUIZ | **7.2-7.4** | **FRIDAY** | **APRIL 20th**  |
| April 23rd -April 27th  | **How can you solve a Linear System by shading?**  | -**7.6 Solve Systems of Linear Inequality** | **Vocabulary:**-System of Linear inequalities-Solution of system of a system of linear inequalities -graph of a system of linear inequalities  **DUE: Monday April 24th** -**7.6 (P. 469 #’s 3-21 odds)****DUE: Friday April 27th at 4:30pm** |
| April 30th-May4th  | **How can you find a product of powers and a power of a power?** | **-8.1 Apply Exponent Properties Involving Products**  | **Vocabulary:**-Order of magnitude-Power-Exponent-Base**DUE: Tuesday May 1st** -**8.1 (P. 492 #’s 3-25 odds)****DUE: Friday May 4th at 4:30pm** |
| MIDTERM I | **7.2-8.1** | **FRIDAY** | **MAY 4th**  |
| May 7th -May 11th  |  | **-8.2 Apply Exponent Properties Involving Quotients** **-8.3 Define and Use Zero and Negative Exponents**  | **Vocabulary** --Reciprocal **DUE: Tuesday May 8th** **8.2 (P. 498 #’s 3-19 odds)****DUE: Friday May 11th at 4:30 pm**  |
| May 14th -Math 18th  | **What is scientific Notation?** | **-8.4 Use Scientific Notation**  | **Vocabulary:** -Scientific Notations -**8.3 (P. 506 #’s 3-25 odds)****-8.4 (P. 515 #’s 3-27 odds)****DUE: Thursday May 17th at 4:30pm**  |
| May 21st -May 25th  |  | **-Activity** **-9.1 Add and Subtract Polynomials**  | **DUE: Tuesday May 22nd** **Vocabulary:****-**Monomial-Degree of monomial -polynomial -leading coefficient -binomial-trinomial-**9.1 (P. 557 #’s 3- 25 odds)****DUE: Friday May 25th**  |
| May 29th- June 1st  | **How can you use a graph to check your work with polynomials?** | -**9.2 Multiply Polynomials**  |  -**9.2 (P. 565 #’s 3-25 odds)****DUE: Tuesday June 5th at 4:30pm**  |
| FINAL |  | **THURSDAY** | **JUNE 7th**  |
| June 11th- June 14th  |  | **Group Work**  | **DUE: June 14th**  |

### Examinations:

FINAL EXAM

**THURSDAY JUNE 7th**