# Algebra I | Jenoge Khatter (Jen-ohj Kotter) | khatter\_j@4j.lane.edu | Room D7

Students can generally come to me for help/questions from 8:15-8:55am,12:20-2:20pm, 3:30-3:45pm (Wednesdays: 8:15-8:55AM & 12:40-1:30 & 2:30-2:45PM) Parents/Guardians can e-mail or leave a message @ 541-790-8500 (If I don't get back to you quickly, feel free to e-mail or call again.)

**Course Description:** This is a rigorous class that integrates 4J's College Preparatory Math (CPM) curriculum and balances both conceptual understanding with algorithmic practice in a problem-solving environment highly dependent upon partner and group work. This class meets the high school Algebra I standards and can provide one High School math credit – a decision families make at the end of the school year.

# Your student's book may cost as much as \$70 to re-purchase. Please help them keep it safe!

## **Important Contacts and Resources**

**HW Help:** http://homework.cpm.org/cpm-homework/homework/category/CC/textbook/CCA and **RMS Homework Club** before/after school in Room C6 Computer Lab

### Materials Needed

\*Scientific Calculator (not a phone calculator)

- \*Two graph paper notebooks (please contact me if you need help getting these)
- \*Pencils (please be sure your pencils are sharpened before class starts)

\*Double-pocketed folder (no need for brads, but brads okay)

\*Brains (be sure not to leave them at home!)

#### Grading

This class utilizes proficiency based grading. Homework, classwork and notes are periodically checked, and students will be referred to their advisors if they are frequently missing any of these, but none affect their grades. On their assessments, students will receive one of the following five scores: NE, 1, 2, 3, 4, 5. Students will typically have multiple opportunities to show their proficiency for each type of assessment question or problem. Students can also come in for one-on-one help during the times specified above.

The six-tiered assessment scale is defined as:

5 (100%) - Highly Proficient: Student's work exceeds expectations and student consistently performs at a mastery level; student's work deserves imitation because of excellence and serves as a clear example of what is expected from the lesson, assignment, assessment, and overall coursework standards. ("I can teach it.")
4 (90%) - Proficient: Student has demonstrated that she/he understands this concept and can reliably demonstrate the expected standards. ("I can do it.")

**3 (80%) – Nearly Proficient:** Student is showing understanding of the skill but struggles to get through all of the steps without making errors. ("I can do most of it.")

2 (70%) - Developing Proficiency: Student knows the right strategies to approach the problem with, but does not know how to get through all of the steps without making several errors. ("I can do parts of it.")
1 (60%) - Beginning Proficiency: Student has attempted to complete work but does not demonstrate comprehension of standards. ("I'm struggling to do it.")

NE (50%) - No Evidence: Student has yet to attempt the problem. ("I haven't done it yet.")

This scale targets how a student is doing and where her/his strengths and weaknesses are. If a student is not consistently getting at least 3's and 4's, s/he is likely not making use of the extra resources available from their community, school (e.g., Homework Club, Study Hall), curriculum website, and teacher.

**Improving Grades:** I allow students multiple opportunities on each learning target (a kind of problem, such as, "I can write an equation given multiple representations of an exponential function.") As a result, students have the ability to improve their grades at virtually any time. I can administer individual, custom-crafted assessments for students who use opportunities to come in outside of class time to improve their scores. Some make-up opportunities are also offered in class.

**Posting Grades:** The grades posted on Synergy are not entirely reflective of your student's performance. For each learning target, I take the mode (most commonly occurring) score out of the three most recent attempts. I'm happy to explain more in-person or via e-mail.

**Coming in for Help and Communication:** I'm pretty easy to get along with and receive help from. Given that this is a high school level class with high school level curriculum, I have high expectations about the responsibility level of students. I cannot emphasize how important it is for students to ask questions and come in for help if they have questions or confusion. Parents/guardians, please encourage your students to ask questions and for clarity! You can schedule a time to meet and/or have your student obtain my signature after you've sent her/him to come speak with me in order to verify that we met. Also... I'm working on creating a website that I'll readily update... I'll e-mail you and tell students when I've made progress on this.

Algebra Course Learning Targets per Chapter:

- 1.1 I can complete a table and create a graph when given a function.
- 1.2 I can make a complete description of a function.
- 1.3 I can determine outputs for any function when given inputs.
- 2.1 I can write an equation given multiple representations of a linear function.
- 2.2 I can complete a table given multiple representations of a linear function.
- 2.3 I can create a graph given multiple representations of a linear function.
- 2.4 I can find the slope and intercepts of a linear function from multiple representations.
- 2.5 I can interpret the slope and y-intercept of a linear function from multiple representations.
- 3.1 I can simplify expressions with integer exponents
- 3.2 I can multiply binomials and polynomials.
- 3.3 I can solve Algebraic equations.
- 3.4 I can solve Algebraic absolute-value equations.
- 3.5 I can rewrite multi-variable equations in terms of one of the variables.
- 4.1 I can write a system of equations to model a situation.
- 4.2 I can determine the solution to systems of equations using multiple strategies.
- 4.3 I can interpret the solution to a system of equations in context of a situation.
- 4.4 I can interpret when a systems of equations has infinite solutions or no solution.
- 5.1 I can compare and contrast qualities of different functions.
- 5.2 I can write the recursive equations for an arithmetic sequence.
- 5.3 I can convert between the recursive and the explicit equation for an arithmetic sequence.
- 7.1 I can calculate the multiplier given two points in an exponential representation.
- 7.2 I can convert between percentage change (increase/decrease) and a multiplier.
- 7.3 I can write an equation given multiple representations of an exponential function.
- 7.4 I can complete a table given multiple representations of an exponential function.
- 7.5 I can create a graph given multiple representations of an exponential function.
- 7.6 I can interpret if a situation is exponential growth or decay given a representation.
- 7.7 I can simplify expressions with fractional exponents.
- 8.1 I can completely factor a quadratic expression.
- 8.2 I can create a graph given multiple representations of a quadratic function.
- 8.3 I can complete a table given multiple representations of a quadratic function.
- 8.4 I can write an equation given multiple representations of a quadratic function.

8.5 I can use algebraic methods (zero product property, quadratic formula, completing the square) to calculate and verify any x-intercepts in a quadratic function.

- 8.6 I can use algebraic methods (completing the square, line of symmetry) to find the vertex of a quadratic function.
- 8.7 I can interpret the meaning of the intercepts and vertex in context of a situation.
- 9.1 I can write, solve and graph one variable inequalities
- 9.2 I can write, solve and graph two variable inequalities.
- 9.3 I can write, solve and graph systems of inequalities.