

Algebra Focus: Absolute Value Functions

Dates: October 23, 2013 - December 18, 2013 (7 weeks)

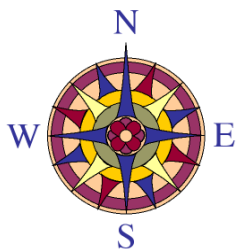
Instructor: Sarah Hogue

Objective: Algebra Focus is a class series that drills down and explores key concepts in algebra to ensure a deep understanding of challenging topics. Students will work methodically through complex algebra concepts that are critical to success in advanced algebra, geometry, calculus, AP, and college entrance exams.

Absolute value is a term used in mathematics to indicate the distance of a number from the zero of a number line. Absolute value of a number is always positive. In this course, we will study absolute value functions and their graphs in addition to absolute value equations and inequalities. Class activities will include several contextual applications of absolute value functions.

Preliminary Course Outline

<u>Week</u>	<u>Theme/Topic</u>
1.	Definition of Absolute Value <ul style="list-style-type: none">• Relations on Number Line• Definition as a Piece-wise Function
2.	Absolute Value Equations <ul style="list-style-type: none">• Use Two Linear Equations• Checking the Solutions
3.	Absolute Value Equations <ul style="list-style-type: none">• Applications
4.	Absolute Value Equations <ul style="list-style-type: none">• More Applications



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5. Absolute Value Functions
 - Graphing on Coordinate Plane
 - Vertex and Axis of Symmetry
 - Transformations

6. Absolute Value Inequalities
 - Review of Linear Inequalities
 - Problems Using Greater Than
 - Applications

7. Absolute Value Inequalities
 - Problems Using Less Than
 - Applications

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