

Algebra Applications: All About Exponents

Dates: March 26 - May 21, 2014 (7 weeks)

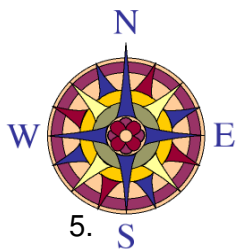
Instructor: Sarah Hogue

Objective: Algebra Applications is series of classes that drills down and explores key concepts in algebra to ensure a thorough understanding of challenging topics. The class will explore real-life uses and applications for complex algebraic functions. A deeper comprehension of these topics is critical to success in advanced algebra, geometry, calculus, AP mathematics, and college entrance exams. The Applications series will cover: Linear Equations (Quarter 1), Absolute Value Functions (Quarter 2), Quadratic Functions (Quarter 3), and All About Exponents (Quarter 4).

This quarter will examine apply the properties of exponents to evaluate and simplify expressions involving powers. Students will also learn how to use exponents and scientific notation to model real-world occurrences. This is a 7-week class that will not meet on May 14.

Preliminary Course Outline

<u>Week</u>	<u>Theme/Topic</u>
1.	Definition of an Exponent <ul style="list-style-type: none">Evaluating Numerical ExpressionsUsing Scientific NotationTheoretical Applications
2.	Properties of Exponents <ul style="list-style-type: none">Product of Powers PropertyPower of a Power PropertyPower of a Product PropertySimplifying Algebraic Expressions
3.	Properties of Exponents <ul style="list-style-type: none">Quotient of Powers PropertyPower of a Quotient PropertySimplifying Algebraic Expressions
4.	Multiplication and Division of Algebraic Expressions <ul style="list-style-type: none">Discuss Order of OperationsCompare with Addition and Subtraction of Expressions



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5. Zero and Negative Exponents
 - Negative Exponent Property
 - Zero Exponent Property
 - Exponential Applications

6. Exponential Applications
 - Exponential Modeling
 - Simplifying Problems Using Scientific Notation

7. Review All Exponential Properties

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