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# PETERS TOWNSHIP HIGH SCHOOL

## COURSE SYLLABUS: SAT PREP - MATH

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### **Course Overview and Essential Skills**

The purpose of this course is to prepare students for the Math section of the New SAT exam. This course is designed to review the necessary pre-requisites in the designated test areas: Heart of Algebra, Problem Solving and Data Analysis, Advanced Math, and Additional Topics. In addition to studying to mathematics, students will acquire various test taking strategies to boost their overall scores. The main goal for this course is to assess current knowledge and identify possible areas of weakness. To do this, we will use the Khan Academy website. Students will then be able to work on these specific needs by means of practice tests, remediation of skill deficit areas, and individual one-on-one instruction.

### **Course Textbook and Required Materials**

- Math Workbook for the NEW SAT, 6E, 2016, ISBN# 978-1-4380-0621-5  
The Official SAT Study Guide (Redesigned SAT), CollegeBoard, ©2015, Item No. 104309
- Khan Academy
- You should bring the following to class every day: Binder/folder, notebook, writing utensil, and an approved graphing calculator

### **Course Outline of Material Covered:**

<b>Unit or Topic</b>	<b>Concepts/Skills/Resources</b>	<b>Timeframe</b>
SAT Testing Strategies	<ul style="list-style-type: none"><li>• Getting Familiar with the Exam</li><li>• SAT Math Strategies</li></ul>	1 Week
Heart of Algebra	<ul style="list-style-type: none"><li>• Linear Equations</li><li>• Systems of Equations and Inequalities</li><li>• Algebraic and Absolute Value Inequalities</li><li>• Polynomials and Algebraic Functions</li><li>• Factoring and Quadratic Equations</li><li>• Functions</li></ul>	2 - 3 Weeks
Problem Solving and Data Analysis	<ul style="list-style-type: none"><li>• Percents, Ratios and Variation</li><li>• Rates and Units of Measurement</li><li>• Linear and Exponential Functions</li><li>• Graphs, Tables, Scatterplots and Sampling</li><li>• Statistics</li></ul>	2 Weeks
Passport to Advanced Mathematics	<ul style="list-style-type: none"><li>• Rational Exponents and Algebraic Methods</li><li>• Complex Numbers</li><li>• Completing the Square</li><li>• Parabola and its Equation</li><li>• Reflections and Transformations</li></ul>	2 Weeks
Additional Topics in Mathematics	<ul style="list-style-type: none"><li>• Basic Facts and Area</li><li>• Circles and Equations</li><li>• Volumes of Solid Figures</li></ul>	1-2 Weeks

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|  | <ul style="list-style-type: none"><li>• Basic Trigonometry</li><li>• The Unit Circle</li></ul> |  |
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*\*Depending on the needs of the class or changes in the school year, the course outline is subject to change.*