

## GENERAL INFORMATION

Mercer Education's *ADVANCED SAT MATH CAMP* is for students who wish to raise their performance on the Math portion of the SAT to the highest level and prepare for similar standardized tests like the ACT. This program meets for 2.5 hours per day from 3:30-6pm, twice a week (either M/Th or T/F) for 4 weeks for a total of 20 hours\* of instruction and exercises. There are two (2) one-month sessions, and students may attend just the first session, just the second session, or both. Enrollment is limited to 1) students who can provide a copy of recent official SAT test results in which they received a score of 640 or higher on the Math portion of the SAT (or meet those criteria on an SAT assessment test provided by Mercer Education) and 2) students who have completed an Algebra II course. Students are scheduled in groups of approximately the same proficiency, and the small classes, not exceeding eight students, allow teachers to tailor sessions to each student's needs. Over the course of four weeks, students complete up to eight practice SAT Math tests both in class and as part of their homework, and an optional complete mock SAT under testing conditions similar to those of the real SAT.

This course provides a thorough review of the main topics required by the math portion of the SAT (along with many of those required by the math portion of the ACT), as well as extensive experience with the variety of questions asked on the SAT test and a thorough review of math test-taking strategies. The curriculum places additional emphasis on competency in calculator skills and the derivation of multiple analytical approaches to problems. Students continue to strengthen time management skills, take multiple tests, identify areas of weakness, and receive feedback and score analysis from experienced instructors. At the end of each session, parents receive a progress report appraising students' work in the course and offering suggestions for additional academic improvement.

## MATH TOPICS AND MATH HOMEWORK REVIEW (approximately 1.5 hours each class; total 12 hours)

Students receive focused instruction in all of the areas required to successfully take an SAT Math test. Typically, this will involve a comprehensive review of material from Algebra 1, Algebra 2, Geometry, Trigonometry, and Pre-Calculus along with relevant strategies and approaches to problem-solving aimed towards prompt and successful completion of archetypal questions. Subjects covered include: Number Theory, Ratios, Logs, Functions, Expressions, Word Problems, Angles, Triangles, Mensuration, Coordinate Geometry, Trigonometry, Complex Numbers, Statistics, Sequences, and Probability.

\* SAT is a registered trademark of the College Board, which was not involved in the production of, and does not endorse, Mercer Education's website, products or services.

\*\* The camp only very rarely meets for 17 hours in ME's first session because of the school closing for Independence Day (7/4), but the course content and tuition rates are the same.

## **ADVANCED TEST TAKING STRATEGIES (approximately 1 hour each class; total 8 hours)**

Math sections in the SAT are 25 and 55 minutes long and contain multiple choice questions addressing most of the topics mentioned above. The SAT Math test sometimes focuses on higher level math topics, but it integrates many of the concepts mentioned; indeed, the more advanced topics can help with the apparently lower level questions. The course materials are targeted to students' gaining a complete understanding of question phraseology, precision in reading questions, and the development of several strategies for solving each problem and checking answers.

## **A STUDENT'S TYPICAL DAY (total 2.5 hours each class, twice a week)**

Preparing for SAT Math involves multiple skills and problem types to which each group of students brings different strengths and weaknesses. Because of this overlap of skills and student diversity, times dedicated to various components may vary depending on the needs of the class.

- ▶ Extensive Problem-solving Practice with emphasis on clear understanding of the problem and the fastest successful method of solution
  
- ▶ Fast Paced, Thorough Review of all topics required for SAT Math and similar standardized tests
  
- ▶ Development of Time Management skills to allow for checking of solutions and alternative approaches to problems
  
- ▶ Review of Calculator short cuts and the use of technology to aid test-taking; development of skills in solving problems without calculators
  
- ▶ Methodical Test Analysis with focus on strategies and identifying weak areas for review
  
- ▶ Supplemental advanced exercises for maximizing test results