Investigating Gender Differences in UMTYMP Entrance Exam.

For the last thirty years, the University of Minnesota Talented Youth Mathematics Program (UMTYMP) has taught college-level Calculus to high school students. During the students’ three years in the Calculus program, they learn single-variable calculus, differential equations, linear algebra, and multi-variable calculus. After completion of the program, students are usually ready to take an advance topics course, an upper-level math course in post-secondary education at the university, or other courses as new college students (after they graduate high school). In order to complete this program by the end of high school, these students in middle school take an accelerated version of regular high school courses: Algebra I & II, Geometry, and Math Analysis. Since the program is accelerated and independent studying is crucial, students who wish to entire UMTYMP must complete an entrance exam. For years, we had seen a disparity in average exam scores between females and males. In 2011, we decided to re-organize the exam in order to determine whether it is possible for this disparity to lessen. In this talk, we will investigate the disparity from past exams and look at how the disparity changes for the 2011 exam. (Received September 22, 2011)