

Justin LoTurco graduated from the Institute of Creative Problem Solving for Gifted and Talented Students in 2014.

LoTurco Advances to LI Math Fair Finals

He's well-known as one of Suffolk's finest high school golfers, but Justin LoTurco is a scholar, too. The Huntington High School junior is a math whiz who has qualified for this year's Long Island Math Fair finals at Hofstra next month.

Mr. LoTurco has been researching Morley's Triangle and developing a thorough understanding of the proof since last fall. Some might see it as laborious work, dull and drab with little to interest a teenager. Not so for the Class of 2015 member who finds the academic discipline to be an interesting challenge.

"My passion for math began when I was young, and I was fortunate to be able to pursue it outside of school at a young age also," Mr. LoTurco said. "Being a part of Math Olympiad and Mathletes led to classes at SUNY Old Westbury and Brookhaven National Laboratories."



"Justin has worked countless hours gaining an understanding of the geometric relationship [of Morley's Triangle] and the complex proof using trigonometric identities," said Huntington High School math teacher Patricia Tagliente, who has been mentoring Mr. LoTurco through the project experience. The teenager had to research the trigonometric identities that are not discussed in high school classes.

"Once he had an understanding, he perfected the proof showing the equilateral relationship formed by the trisections of any triangle," said Ms. Tagliente about Mr. LoTurco's research project. Huntington Principal Carmela Leonardi has been fully supportive of the junior's participation in the Long Island academic competition.

Late last month, Mr. LoTurco presented his research to a panel of expert judges at Suffolk Community College in Selden and qualified for the Long Island Math Fair's final round at Hofstra University on May 2.

"This past year I have been a part of a great math program again at SUNY Old Westbury and an aspect of this program was participating in a math research competition which took place in March," Mr. LoTurco said. "My paper and presentation explored Morley's Trisector Theorem, a topic I chose due to my interest in geometry. Preparing for the competition involved a tremendous amount of work and I learned so much throughout the process. Understanding a mathematical proof is one thing, but constructing one is much more complicated, but very rewarding at the same time."

"It was a pleasure working with Justin," Ms. Tagliente said. "I look forward to seeing if he continues his research and expands upon his project. He has already started researching the application to other geometric shapes."

Mr. LoTurco participated in the district's SEARCH program for academically talented elementary school districts. He was selected to participate in the Institute of Creative Problem Solving for Gifted and Talented Students at SUNY Old Westbury, which led to another program at Brookhaven National Lab in Upton. Participants in those two programs were invited to apply for inclusion in still another elite

math program at SUNY Old Westbury this year. The program accepted only 25 Long Island high school students, who were required to participate in this year's Long Island Math Fair.

The judges at the Suffolk regional finals chose a relatively small group of students to advance to the finals at Hofstra, where they will compete for gold, silver and bronze awards.

Mr. LoTurco has always been passionate about math. He is currently enrolled in Honors Pre-Calculus BC with Ms. Tagliente. The teenager intends to pursue math studies in college.

The Huntington junior has blazed a trail of academic excellence. Mr. LoTurco is a regular on the high school's high honor roll, is a member of the National Honor Society as well as the local chapters of the national Math, Social Studies, English and Foreign Language honor societies and has been named to the National Society of High School Scholars.

Mr. LoTurco earned a bronze medal for his performance on last year's National Spanish Exam. He has been accepted into the highly regarded Institute of Mathematics Education, Research and Instructional Technology.

The teenager has served as the treasurer of Huntington's Class of 2015 for many years. Mr. LoTurco has been active in numerous extracurricular activities and has been a Relay For Life team captain. He traveled to Australia with the People to People student ambassador program. An All-County clarinet player, he notched a perfect score on NYSSMA's Level VI last year.

Mr. LoTurco has also been an exceptional golfer, serving as a captain for the Blue Devils undefeated team. He was the 2013 Suffolk County Parks 3-Day Tournament champion and the Crab Meadow Met PGA Golf Tournament champion.

As the Long Island Math Fair finals approach, Mr. LoTurco intends to continue his preparations as he looks to bring a top award home to Huntington High School. "Although I don't believe Huntington High School has participated in this competition in the past, Dr. Leonardi and the math department were very willing to sponsor my participation this year," Mr. LoTurco said. "Hopefully this will open the door for more participants from our school in the future. I would not have been able to do as well as I did at the preliminary round without the help of Ms. Tagliente. She was my mentor throughout the entire process and sat as a judge for other students at the competition. I am looking forward to presenting my research at the final round at Hofstra in May."