San Luis Obispo – Cal Poly’s math team ranked No. 47 in the annual Putnam Exam – one of the most difficult math competitions in North America. The competition pitted Cal Poly’s team against teams from 572 participating universities in the U.S. and Canada.

While there is no limit to the number of individuals competing from any university, team ranking is based on the rankings of three team members selected prior to the competition.

Cal Poly’s team was comprised of math major Matthew Tytel, Cal Poly’s top scorer, who placed 349 out of 4,440 competitors; James Hall, who placed 646; and Paul Coombs, who placed 1090.5.

The six-hour exam consisted of 12 problems solved in two three-hour sittings, no calculators allowed. The maximum score possible is 120 points – 10 points per problem.

“The Putnam Competition is the ultimate mathematical problem-solving competition for college students,” said Professor Jonathan Shapiro, who coached this year’s group. “It challenges students to come up with detailed solutions for extremely hard problems. A complete, correct solution to any Putnam problem is an achievement a student can be proud of. Only top students can solve more than one.”

At Cal Poly, the Mathematics Department offers a two-unit class every fall for students who want to test themselves with the exam. Shapiro takes turns teaching the class with math professors Morgan Sherman and Lawrence Sze. They also sit down with the students and “take” the exam on the first Saturday of December every year.

Other Cal Poly students who scored on the Putnam Exam include: Trent Speier, Michele Jenkins, Derek Tietze and Matthew Rodrigues.

Ranks at half steps occur when the ranks of students with the same score are averaged together.

Exam samples:

- Try your hand at [last year’s exam](#).
- A problem from this year’s exam: For which positive integers \( n \) is there an \( n \times n \) matrix with integer entries such that every dot product of a row with itself is even, while every dot product of two different rows is odd?