

EXETER SCORES FIRST IN THE NATION AT ARML MATH COMPETITION

Question: The pages of a book are numbered consecutively from 1 to n . The book is divided into 12 chapters such that the number of digits used to number the pages of each chapter is the same. Compute the least possible value for n .

If you need help to solve this math problem, ask Keone Hon or Sherry Gong. The two seniors were co-captains of Exeter's 15-member Math Team, which won first place in the nation at this year's American Regions Mathematics League (ARML).

Considered the World Series of mathematics competitions, ARML is the largest on-site math competition in the country, involving high school students from almost every state. This year, over 1,800 students participated in the daylong meet, which took place on June 2—the day before Gong and Hon graduated—at three different sites: the University of Nevada-Las Vegas; the University of Iowa; and Penn State University, where Exeter's team competed.

The Math Team's "tremendous depth and teamwork" helped them capture top honors at the American Regions Mathematics League competition, says math instructor Zuming Feng.



"This is extremely good news," says mathematics instructor Dr. Zuming Feng, the team's adviser. "While we have been a dominant force in math extracurricular activities for several years now, it is very difficult for a team from one school to win the event, because most of the teams are made up of top students from an entire region or state." Exeter's top-place finish reflects the Math Team's "tremendous depth and teamwork," he adds.

"This is definitely a team contest," agrees Hon. "Having a few very strong students is not enough; all 15 members of the team must have solid performances."

The Math Team scored a total of 171 points in four areas of competition, earning them first place. In addition to Hon (who is from Kamuela, HI) and Gong (San Juan, PR), team members included Gye Hyun Baek '09 (Seoul, Korea); Brian Basham '08 (Brush Prairie, WA); Eric Cho '08 (McLean, VA); Karl Cobbe '09 (Nevada City, CA); Maria Chung '08 (Sungnam City, Korea); Yi Han '08 (Pittsburgh, PA); Amy Huang '09 (Tenafly, NJ); Jamie Karraker '08 (Morgantown, WV); Han Lee '08 (Seoul, Korea); Paul Lee '09 (Carmel, IN); David Rush '08 (Scarsdale, NY); Ashwin Suresh '08 (Acton, MA); John Yoshida '08 (Syosset, NY).

Alternates, who also traveled to the event, included Vivek Agarwala '08 (State College, PA); Yunjee Kang '10 (Guilford, NY); Najja Kossally '08 (Brooklyn, NY); Keebuhm Park '09 (Seoul, Korea); Anubhav Sinha '10 (Rochester, MN); Vikas Velagapudi '10 (Moline, IL); David Xiao '10 (Brentwood, NH).

PEA has sent a team to ARML every year since 1998, finishing in seventh place in 2006 and third in 2005. Several Math Team members also take part in the prestigious USA Mathematical Olympiad (USAMO) competition; this year co-captain Gong tied for second place in the nationwide exam and, as a member of the U.S. international team, will compete in the International Mathematical Olympiad in Hanoi, Vietnam this July.

—*Famebridge Witherspoon*