

## Summer of PROMYS

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Bostonia, Fall 1999

Since 1989, the Program in Mathematics for Young Scientists (PROMYS) has attracted math whizzes from high schools around the country to Boston University for six weeks during their summer vacation. This year nine Massachusetts teachers, five of them with students in tow, traded in their grade books for notebooks to take part in PROMYS for Teachers, which continues throughout the school year with workshops and concludes next summer with another six-week session. Sitting side-by-side with students in morning lectures, the teachers broadened their knowledge of number theory — the study of the properties of integers — and then, after lunch, tackled assigned problem sets. In the follow-up workshops, the teachers will learn techniques to engage students more effectively in mathematical exploration in their own classrooms. Matthew Coleman (*SED '98*), who planned to use many of the number theory problems in his classes at Framingham High School, expects them to challenge students. "It's good for them to struggle," he says.

Indeed, many of the fifty-six high school students accepted to PROMYS were surprised to find the work so difficult, but enjoyed the challenge, saying that because number theory problems are open-ended and exploratory, they go a step beyond what is taught in usual high school math classes. "It's about discovery, as opposed to being taught all the materials," says Jim Riley, a returning student from last summer. Working with faculty as well as undergraduate and graduate counselors, students were submerged in mathematics, whether attending lectures or pondering over problem sets independently or in small groups. "It's really great to study math all day, says Aaron Iba, a high school junior from Massachusetts. "It's the ideal environment to learn as much math as you want." Gene Shuman of South Carolina agrees: "I'd rather be doing this than anything."