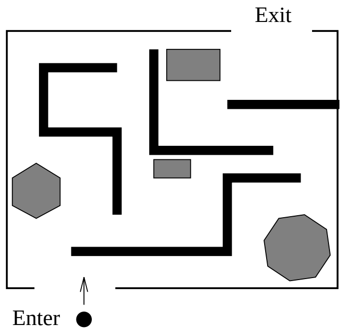
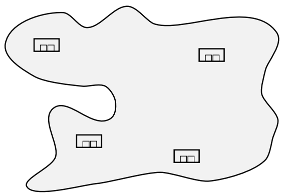
About the 1996 Topic

Computational Geometry, a field combining mathematics and computer science, is the focus of the 1996 Institute. The following are examples of the types of problems addressed which are also accessible to high-school students.

What is the shortest route that the small robot (black dot) can use to get from "Enter" to "Exit", avoiding the obstacles?



In Dry Grass County, there are four fire stations, as shown on the map below. Where is the best place to build a new fire station?



About DIMACS

DIMACS, the *NSF Science and Technology Center* for Discrete Mathematics and Theoretical Computer Science, is a consortium of Rutgers University, Princeton University, Bellcore, and Bell Laboratories. DIMACS education programs include the *Leadership Program in Discrete Mathematics* (currently focused on K-8 teachers) and the *Young Scholars Program in Discrete Mathematics* (for HS students).

DIMACS Research & Education Institute

Working towards integration of education and research in the mathematical and computational sciences.

Geometry ⋆ Visualization ⋆ and Computing

Princeton University
June 23 – July 13, 1996

Participants High school teachers, and researchers at all levels, are invited to attend.

Activities Teachers will participate in two ongoing workshops:

- ***Computing and the Internet***
- ***Computational Geometry and Discrete Mathematics***

There will also be seminars for researchers, and all-institute activities, focused on issues of interest to both teachers and researchers.

The program will provide new content and materials, supporting the *NCTM Standards*, suitable for courses at many levels, including geometry, algebra, discrete mathematics, and computer science. *Prior knowledge of Institute topics is not assumed.*

Teams of teachers and researchers will be encouraged to collaborate on projects such as developing classroom materials, using the Internet to continue projects after the summer program.

Staff Activities will be led by experienced college and university faculty (from Princeton as well as other institutions) and high school teachers-in-residence.

Funded by the National Science Foundation

Sponsored by

DIMACS
Center for Discrete Mathematics and Theoretical Computer science

Further Information for Teachers

Housing and Support Lodging and meals (weekdays, on the Princeton campus), a travel allowance, and a stipend ($900) will be provided for the three-week program. *Only citizens or permanent residents may receive funding.*

Expectations Participants will be expected to develop classroom materials based on Institute topics, and to present them at one-day followup meetings during the year, and a conference the following summer (dates and location to be announced).

Application Deadline: March 22, 1996
(Notification by mid-April). *Preference will be given to applicants already using the Internet.*

Who Should Apply The program is intended primarily for teachers or supervisors of mathematics or computer science in grades 9-12. Teachers of grades 7-8 with strong backgrounds in mathematics, or teachers of introductory college courses may also apply. Teams of teachers from a single school or district are welcome.

To Receive an Application
Please contact the DREI Administrator,
phone: 908-445-5928 fax: 908-445-5932
e-mail: drei@dimacs.rutgers.edu

Or, write to: DIMACS R/E Institute
DIMACS, Core Bldg., Busch Campus
Rutgers University
Piscataway, NJ 08855-1179.

Please include your name, mailing address, phone numbers, e-mail address (if available), and school name.

Further information on the research program may be obtained from Bernard Chazelle, chazelle@cs.princeton.edu.

Please feel free to copy this notice and distribute it to your colleagues. A notice for posting on bulletin boards is on the reverse side.