

## Registration Form

Teachers can only participate in one institute per session.

Institute Name	Session	
	Session 1 June 28–July 2	Session 2 August 9–13
	1- <input type="checkbox"/>	2- <input type="checkbox"/>
	1- <input type="checkbox"/>	2- <input type="checkbox"/>
	1- <input type="checkbox"/>	2- <input type="checkbox"/>
	1- <input type="checkbox"/>	2- <input type="checkbox"/>

**Please Print**

Name

Address

Phone

**District & leader:**

*Please return form to appropriate district leader.*

- |  |   |
|--|---|
| <input type="checkbox"/> <b>Arlington</b><br>Kathy Bodie     | <input type="checkbox"/> <b>Waltham</b><br>Eileen Herlihy     |
| <input type="checkbox"/> <b>Chelsea</b><br>Andrea Pulvar     | <input type="checkbox"/> <b>Watertown</b><br>Chuck Garabedian |
| <input type="checkbox"/> <b>Lawrence</b><br>Nancy McLaughlin |   |

School:

Grade level:

Signature

**Registration is due by March 31<sup>st</sup>. We will accept registration after this date depending on availability.**



## Professional Development Points

Participants will be awarded PDPs equivalent to the number of hours spent in each **Focus on Mathematics** institute.

Boston University  
Department of Mathematics and Statistics  
111 Cummington Road  
Boston, MA 02215



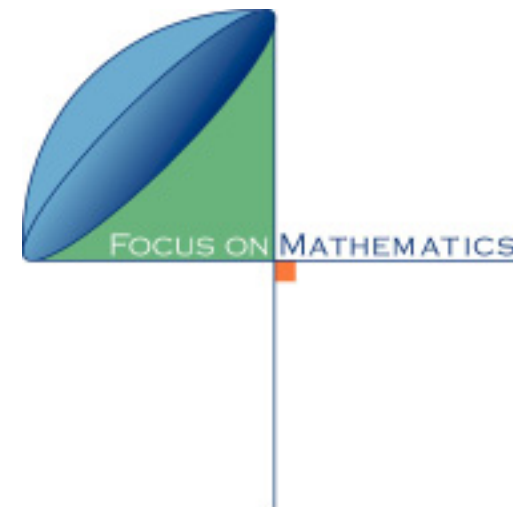
Information regarding your institute, including a map and driving instructions, will be mailed to you after registration has been completed.

## Contact Information

**Ava Berinstein** *Project Coordinator*  
BU 617-358-2388

**Jill Vollmuth** *Project Liaison*  
EDC 617-618-2815

**Taylor Amaio** *Sr. Administrative Assistant*  
EDC 617-618-2944



# Summer Institutes 2004

**Session 1: June 28–July 2**  
**Session 2: August 9–13**

[www.focusonmath.org](http://www.focusonmath.org)



Summer mathematics institutes offering content-based professional development for middle and high school mathematics teachers

## TOPICS IN ALGEBRA AND NUMBER THEORY

### Making Connections

In this institute, teachers make explicit connections between the higher-level mathematics they may have encountered in graduate or undergraduate courses in linear or abstract algebra and the mathematics taught in middle and high school. Topics include investigating the patterns in the periods of repeating decimals, divisibility rules, such algebraic structures as groups and fields, modular arithmetic, and primes and composites in the integers and polynomials.

**Session 1:** McDevitt Middle School—Waltham  
June 28–July 2  
M–Th 8:00–3:00, Fri 8:00–12:00

**Session 2:** McDevitt Middle School—Waltham  
August 9–13  
M–Th 8:00–3:00, Fri 8:00–12:00

**Facilitator:** Carol Findell

## EXPLORING, LEARNING, AND TEACHING WITH DYNAMIC GEOMETRY TOOLS

### Learning by Doing

Geometer's Sketchpad and Cabri Jr. (an application on the TI-83 Plus calculator) are dynamic geometry tools that allow learners to accurately construct geometric figures. They can then alter them dynamically in order to test conjectures and gain mathematical insight that is less readily available with static drawings by hand.

In this institute, teachers investigate a variety of problem contexts, using dynamic geometry software to help them as they make, test, and prove (or disprove) conjectures, and create activities that allow students to explore mathematically.

**Session 1:** McDevitt Middle School—Waltham  
June 28–July 2  
M–Th 8:00–3:00, Fri 8:00–12:00

**Session 2:** McDevitt Middle School—Waltham  
August 9–13  
M–Th 8:00–3:00, Fri 8:00–12:00

**Facilitator:** Steve Benson

## LESSON STUDY

### Creating a Mathematical Community

In this institute, teachers deepen their understanding of teaching and learning mathematics through the focused study of one lesson. In “lesson study”, teachers collaborate through a cycle of goal setting, lesson development, observation of the lesson, and revision and reflection. A sense of mathematical community develops as teachers create a lesson together: selecting their own lesson topic, sharing expertise, discussing the mathematics of the lesson, exploring treatments of the topic in various texts, and anticipating varied student approaches to the mathematics of the lesson. Driving questions include: What do we want our students to understand in this lesson? What does it mean to understand this concept? How does this learning develop over time? What pedagogical strategies will best support this learning?

**Session 1:** Education Development Center—Newton, MA  
June 28–July 2  
M–Th 8:00–3:00, Fri 8:00–12:00

**Session 2:** Education Development Center—Newton, MA  
August 9–13  
M–Th 8:00–3:00, Fri 8:00–12:00

**Facilitators:** Jane Gorman and June Mark

## MATHEMATICS IN INDUSTRY

### Summer Institute Offered by WPI

This one-week workshop for high school teachers gives hands-on experience with mathematics and statistics in industry, business, and government. Discussions focus on applications of mathematics in the real world, curricular changes in high schools and colleges, how real-world applications can motivate students, and the many career paths that are open to students who are well-trained in mathematics. Participants develop mini-projects that are accessible to middle and high school students and illustrate how mathematics and statistics are used in business and industry.

For more information about this workshop, go to:  
[www.wpi.edu/Academics/Depts/Math/CIMS/teachers](http://www.wpi.edu/Academics/Depts/Math/CIMS/teachers)

**Session 1:** Worcester Polytechnic Institute—Worcester  
June 28–July 2  
M–F 8:30–4:30

—Housing is provided—

## Overview

*Focus on Mathematics is a unique partnership funded by the National Science Foundation to improve student achievement by providing mathematics teachers with content knowledge, and skills that are valuable in their profession.*

*As part of Focus on Mathematics, three different summer institutes will be offered to teachers in partnering districts. These institutes will repeat twice each summer. There will be one other institute offered this summer through WPI.*

## Cost/Payment

*Focus on Mathematics teachers, who are qualified through their districts to participate in summer institutes, are paid a stipend of \$375. Stipends for WPI institutes will be handled through WPI. Please contact your district leader for more information and to apply to one or more of the institutes.*