Mathematical Thinking in the Classroom

My objective is to bring a community of interested teachers together to spend a late August morning talking about ways to enrich student (and teacher!) experience in high school mathematics. A significant objective in the English classroom is to develop the students’ imaginative capacities and in part that happens when “works of art” (novels, poems) are brought to the classroom. I feel we need that in mathematics as well and that we need to work to develop a richer set of examples and activities (we call them “powerful stories”).

Mathematics is the abstract study of structure. Students who are able to think in structural terms have greater access to powerful ideas.

At the workshops, I will talk briefly about our experience in constructing such activities and working with them in Grades 9-12 and give summaries of the projects we have been working with so far. Fuller descriptions of these together with classroom-ready resources at all four grade levels are found at our website Math9-12.ca. Have a look at these and see if one of the problems entices you and might work in one of your courses next year! If so, I’d sure like to get feedback on your views and experience.

My hope is to have an active and critical discussion and get feedback and ideas for continued development of a more lively and sophisticated math curriculum.

Math9-12 is part of the KNAER Mathematical Knowledge Network (MKN), an initiative of the Ontario Ministry hosted by the Fields Institute Centre for Mathematics Education. There will be three morning workshops as follows. A $10 registration fee will cover the costs of coffee and refreshments. Limited travel support is available (e.g. bus from Hamilton to attend the Toronto workshop).

Three Morning Workshops

**Kingston:** Monday August 28  9:30-12:00.
Jeffery Hall 521, Queen’s University

**Ottawa:** Tuesday August 29  9:30-12:00.
Adult High School, 300 Rochester St.

**Toronto:** Wednesday August 30  9:30-12:00.
Fields Institute, 222 College St.

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