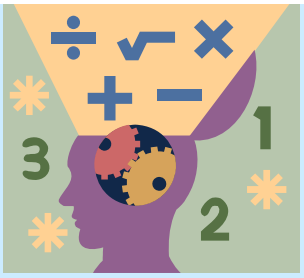

NJ Math Curriculum Network Training
Sponsored by NJ GEAR UP*

QUESTIONS/ANSWERS

Workshop Leader: Bill Crombie is a specialist in the use of graphing calculators and integrated instruction of mathematics and reading/writing literacy. He is the principal developer of the *Polynomial Calculus Curriculum Framework*, which develops the basic concepts, problems, and solutions of the elementary calculus within Algebra I, Geometry, and Algebra II course materials.

Question: Can you describe the content of the curriculum used in the training?

Bill: We have been working to help teachers organize their math curriculum around a few Big Ideas that will in turn help students make sense out of the mathematics they are learning. This in turn provides coherence to what they learn year by year. We do this by examining three themes:

- Rational Numbers
- Data Analysis
- Algebraic Thinking

We generally find that the work we do with teachers is not repetitive since the focus has been on developing a deeper understanding of the materials they teach through these themes and associated big ideas.

Question: Our teachers use the TI-83 graphing calculators. Would they benefit from this training even if you are working with TI 84 graphing calculators?

Bill: Yes. The teachers will benefit from the training even if they are using TI-83 graphing calculators. The TI-84 and TI-83 graphing calculators are basically the same. The TI-84 has more regular memory and has a special memory sector called Flash Memory. Most of the programs we will use run on both the TI-83 and TI-84. These are TI-BASIC programs. There are a special set of programs called Applications (Apps) that are stored in Flash Memory. The TI-83 Plus, as opposed to simply the TI-83, also has Flash Memory and can store and run these App programs. If your teachers have the TI-83 and not the TI-83 Plus we can still work around the fact that they can not run the Apps.

Question: Will students learn to apply their thinking in solving mathematical problems beyond the use of the calculator?

Bill: Yes. Calculators, whether scientific and graphic, are usually used for calculations. We are placing the emphasis on using these machines for representation rather than calculation. There are pictures (really, geometry) that help students understand the arithmetic and algebra they are learning. We are using the graphing calculator to integrate these pictures into the learning process. I would emphasize that while students are working on problems in the programs we provide, they do not have access to the scientific calculator functions on the graphing calculators. Consequently they have to use paper and pencil for their calculations and the pictures, in turn, actually help them figure out the arithmetic. The point is that in addition to the visualization of concepts that the machines provide, we're using the graphing capabilities of the machine to strengthen students' paper and pencil abilities.

As our partner, your school is eligible to participate in this **FREE professional development.*
For information on scheduling a training please contact Kilpatry Cuesta at KilpatryCuesta@comcast.net or (609) 239-5240