

MMC Conference January 28, 2013 Reflection

I attended Preparing Students for AP Calc, Bridging the Gap to Algebra, and Milk and Cookies and Function Transformations.

The first session raised the idea about keeping key terms and ideas consistent and building on those terms and concepts starting from Algebra onto Calculus. The session did not have a lot of interesting math applications and was pretty straightforward. However it did stress the importance of building student knowledge so that when they reach AP calculus, they are equipped with underlying concepts, i.e learning how to read piecewise functions.

The Bridging the gap to Algebra II session provided a glimpse of different math problems and some neat approaches to help students memorize different concepts. For instance, in first introducing matrix multiplication to students, giving labels to each row and column (i.e countries vs. goods) and asking applicable questions may make it easier for students to multiply matrices. In learning logarithms, they introduced "We go" to stand for "what exponent goes onto..." which could be a helpful way for students when working with log problems.

Milk and cookies/ Function Transformations was the session that I enjoyed the most. The session applied function transformations to story problems incorporating "real world" applications such as milk and cookies and ice cream. I really like how he incorporated a hands-on approach for students to use marbles to graph different problems and see the shifts based on the slight changes from each scenario. It was a nice way for students to visualize and to be able to fix errors easily rather than erasing/ using white-out if they were to draw the graph—this made it easier for students to think about open or closed points. It was applicable and engaging, and a great way for students to investigate function transformations.

MMC Conference February 2, 2013 Reflection

Session ONE. # 114—Building a Classroom Today that Works for Tomorrow

Session TWO. # 204—The Potential of Froebel's Gifts

Session THREE # 318—Learn math through paper folding

2 of the 3 workshops I went to were quite insightful. The one I really enjoyed was the first session—Building a Classroom Today that Works for Tomorrow by Zachary Herrman. He talked about problem-based instruction and provided a framework to how he implemented it. He discussed about how he gives students a packet to students each week with an overarching "big problem" i.e how do we find the distance of point a to point b in the classroom with the table. The problem requires students to learn math concepts not yet discussed, but the packet itself provides questions and necessary tools. He also provides students videos to aid in their understanding, i.e videos on how to solve pythagorean problems.

One part that was really interesting was how he helped students; he said the teacher's role is to consult. Students needed to meet two criteria in order to have a consultation with the teacher. They needed to have questions ready to ask the teacher and an explanation of a current strategy for the big problem from each student; if one student in the group didn't talk then he would say they are not yet ready and would not consult. This made each group member responsible. He gave us a website to learn more: zacharyherrmann.com

The second workshop (Froebel's gift) wasn't very informative. The presenter was nice, and worked at an architecture building by Frank Lloyd Wright. But I honestly didn't get much out of it other than playing with wooden blocks (the Froebel Gifts) We also did not talk much about any math that could be incorporated in a classroom.

The third workshop was by an art teacher from Columbia College, and she showed us a novel way to make hexa-flexagons using packaging tape; That way you don't need tape or glue. She showed us how to make a tetrahedron using a mailing envelope that was kind of neat, how to trisect an angle using origami. We also made a triangular origami box. It was nice seeing all of these paper-folding activities, but I wish more of it was spending on ways how to incorporate it in the math class

Overall though, I think going to the MMC conference was worthwhile, because it's always nice to see what other teachers have been doing implementing. And it's a great way to share ideas.