

Closing Ceremony Speech at MathPath 2017  
Mr M (Prof Stephen B Maurer), Executive Director  
July 22, 2017

Parents and Students,

At the opening ceremony, I told the students what I hoped they would experience at MathPath. They did experience it. Let me review that.

MathPath was the first national camp exclusively about mathematics and exclusively for middle-school aged students. It was founded by George Thomas, after he had already founded a high school age math camp and before he founded Epsilon camp for even younger students and Delta camp for students who were even younger<sup>2</sup>.

Now there are competing camps – other national camps exclusively for math that accept middle-school age kids. But MathPath remains unique, not just because it only accepts middle school aged kids, but also because of the variety of mathematics and the amount of fun.

I sometimes ask you students, are there any surprises about MathPath? A common answer is: I didn't expect so much mathematics I'd never heard of. I like this answer because it confirms what I meant when I said the first day that we are a breadth camp. To be sure there are many courses you have heard of: competition practice courses; Basic topics courses like induction and number theory. What about advanced courses you have heard of. Lets see, as a Quiz Bowl question where any of you can answer, what are the 4 types of geometry Dr T teaches? [Analytic, Hyperbolic, Elliptic and Projective.] But if there was nothing you hadn't heard of we're not doing our job.

And, I am pleased to say, you have learned, or begun to learn, how to listen to advanced talks that are hard for you to follow and still get something out of them. You are coming to understand that mathematicians do not know everything but rather know how much they don't know and are patient in their efforts to understand and solve.

Add to that our month long courses on history of mathematics and on writing mathematics and you get a very broad view of the mathematical enterprise.

And that is not all. Let me mention the Problems of the Day, run this year by Kip, with Katarina Chen providing real time illustrations. These are thinking out of the box problems. They are only sometimes solved by traditional mathematical techniques; they usually need some sort of clever special idea. But many problems in life as well as mathematics need clever special ideas, so practice in looking for them is very valuable – as well as great fun.

So let me go on to the unofficial part of the program. The key aspect is how you students interact with each other. Sometimes you talk math, sometimes you show each other how to solve puzzles, often you just kid around. But as someone said in the 2008 EndCamp Survey, this is a camp where it is ok to be a geeky math kid because there are lots of geeky math kids. As a result, you do all sorts of things that geeky kids like to do.

Among these are all the games and tournaments – chess, many card games, table tennis, pickleball – and was there really a tournament-scheduling tournament, or was it a not scheduling tournaments tournament? And then there are the great trips – elective trips like indoor rock climbing ND liuk pafrk and all-camp trips to the Boston Science Museum and to tubing on the Apple River.

You've made a lot of new friends, from around the country and the world. And today, with email, instant messaging, cell phones, Skype, and online MathPath forums at Facebook and the Art of Problem Solving, you can easily keep up with these friends until you see them again – at this camp next year, or other camps, at national competitions, at college, or later in life.

So keep thinking back on what happened here. A few years from now, even things that that didn't seem so important here may stand out in ways you can't foresee.

As is painfully obvious, my illness has very much restricted what I can do at MathPath. I gave up giving breakouts and leading trips last year. This year I don't think I taught my remaining writing plenary very well. Most of all, I can't wander around sitting down briefly with one student after another. The result: I haven't talked to most of you, except to return your cheerful greetings in the hallways – hi Mr M. I only know most of you as an administrator at a distance.

But still, I have been hearing about *all of you* and I have seen that we once again have a great camp. It gives me great pride to have led the effort to make this happen. I look forward to learning of your accomplishments in the years ahead, and maybe seeing you. Thank you.