## Closing Ceremony Speech at MathPath 2010 Mr M (Prof Stephen B Maurer), Academic Director

Parents and Students,

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

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.

Now there are competing camps – other national camps exclusively for math that accept middle-school age kids. But MathPath remains unique because of the variety of mathematics and the amount of fun.

Some of you are very interested in math competitions. That's a good way to get hooked into mathematics, and the competing camps that accept middle school age kids emphasize competition preparation. But professional mathematicians don't do competitions. Instead they can get prizes for research, and sometimes for teaching and for writing mathematics. So bringing you into the real world of mathematics must take you beyond competitions.

We do have competition practice here, this year Mr L's MathCounts and AMC8 courses, my AMC10 course, and Mrs Nal's AIME and Olympiad Geometry courses. But MathPath does much more.

We have foundation courses – courses on basic mathematical concepts that aren't much part of the North American school curriculum, such as number theory and induction. We have more advanced special topics courses, such as Dr V's Game Theory and Inversion Geometry and Prof Beveridge's Catalan Number course. And we have courses where you see active mathematicians at work, for instance, John Conway explaining some of his many original ideas and Prof Su explaining his work on fair division.

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 by Mr L. These are thinking out of the box problems. They are rarely 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 that's an overview of what we do in the official academic program of the camp.

But that still is not all. There is the unofficial part of the program – you students talking to each other. Sometimes you talk math to each other, sometimes you teach each other how to solve Rubik's Cube, sometimes 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 student run games and tournaments – chess, Set, other card games, the limerick contest, pool, table tennis, but also soccer, Frisbee, swimming, pickelball. And then there are the great trips – tubing, cycling, the Minnesota Science museum, and yes, for those who want to shop until they drop, the \_\_\_\_\_ (audience answers Mall of America). Throughout, you have a great sense of humor. I particularly noted the daily dual between Kip trying to get out important information in a timely fashion and you guys, obsessed with wanting to know everything in detail in advance, trying to sink him with questions or tournament announcements before he has said 2 words. Perhaps we need a new contest – the really bad questions to Kip contest.

The point is, through your geeky natures bouncing off each other, you create a unique spirit and have a lot of fun. You have enough free time that you can try all these ideas out.

You've made a lot of new friends, from around the country and the world. And today, with email, instant messaging, cell phones, and online forums at Google Groups and the Art of Problem Solving, you can easily keep up with them 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.

I've enjoyed being here with you, and I'm proud to have played a role in making it happen. Thank you.