

Closing Ceremony Speech at MathPath 2018
Mr M (Prof Stephen B Maurer), Executive Director
July 28, 2018

Parents and Students,

Once again let me say how sad I am I can't be with you, and thank you for your patience in allowing me to occasionally beam in. It's not the most scintillating way to interact with somebody, especially when the topic of conversation is something subtle and complicated, like mathematics.

At the opening ceremony, I told you students what I hoped you would experience at MathPath. I said I hoped that you

Will come out with even much more interest in math

Will know some things that you didn't know before

Will know *about* many things that you know you don't really understand yet, but you want to understand them.

You will know a lot of great new puzzles, problems, and jokes

You will have many new friends

You will have a lot of fun

This year I guess I will learn for certain whether these things happened to you when I read the end of camp survey answers you submitted this afternoon.

Actually I'm pretty sure all these things happened to most of you. Indeed, that question was on the survey more for the value of the answer to *you* than the value to us, that is, it's there to encourage you to reflect upon your time here. In past closing speeches I have initiated a reflection for you, reviewing the nature of the month's activities. But I am too distant now to give a thoughtful review. So I hope that you will do the reflecting yourself, perhaps with the help of your parents.

It's best to reflect with an eye towards the future: how is what you did here this summer going to effect what you do next?

The immediate effect upon your getting home, according to years of parental surveys, is that many of you will miss MathPath terribly – campsickness instead of homesickness, and you may talk about the math and other things you did more than you ever have. Yes, talking to your parents! Some parents were quite shocked.

The midterm effect may be a resolve to keep learning math at an intense rate. But how do you do this during the regular school year?

Some of you are fortunate to live in mathematically rich environments. You attend a specialized school, or you live near a high powered math circle, or you use participation in math contests to promote your learning.

Others of you will have to work harder to find what is best to do. You might take online courses from Art of Problem Solving or Brilliant, or from your state university. You might decide to accelerate through your school curriculum, or apply to a different school. You might sit down with a textbook and paper and pencil and – if you still know how to use such old-fashioned media – actually work through the proofs – you know, putting notes in the margins and solving as many problems from the problem sets as you can. Each person's situation is different. If you do not have a good math advisor at home, consider asking MathPath for advice. Write to your favorite teacher here, or to Prof D, who is the Academic director, or to me. We won't necessarily be able to answer promptly, or answer very helpfully, but often we can.

Finally, there is the longrun. MathPath *will* make a difference years from now. You have been privileged to be in a rarefied atmosphere here. Among the students here will be some of the movers and shakers in future mathematics, in technology, in science, and in world leadership in general. This is not the last time you will run into Mathpathogens.

Indeed, with today's communication hardware and software, you never have to go **Out** of touch with your MathPath friends. 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.

A funny thing about the longrun. You can't tell now what will be important then. It may be that some piece of mathematics you first

heard about in passing in some plenary here will end up being the theme of your highly successful lifelong research career, or it may give you the idea that leads you to build the next big tech company.

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.

In closing, let me remind you of one other thing I said at the beginning. While you wouldn't hear or see me very much, I would be "present" quite frequently at staff meetings. Through these meetings and other communication, I have been hearing about *all of you* and I have seen that we once again have had a great camp. It gives me great pride to have led the effort to make this happen. (By the way, it would not have happened if I didn't have great colleagues on the ground, of whom I am also very proud, but that is a topic for another time.) Again, you've had a great camp and a great opportunity. I look forward to learning of your accomplishments in the years ahead. Thank you.