

by Gabriella Studt

# MATH PATH

## Fun, Games,

**I** WAS 13 THE FIRST YEAR I WENT TO MATHPATH. Having never been to a sleep-away camp, I was nervous about attending. I had also never flown by myself, so my mom flew with me to Denver, where the camp was held that year. When we got off the plane, we saw a counselor holding a sign with “MATHPATH” written in big red letters. She told us where all the kids were supposed to go.

“Want to go introduce yourself?” my mom asked.

“Uh, in a minute. Let’s get my luggage first,” I said nervously.

Once we had my suitcase and I could delay no longer, I went up to the group of kids sitting in a corner of the airport. Pretty much as soon as I joined them, I started to make friends. On the bus ride to Colorado College, where camp was being held that year, I met a few other people, but mostly I got to know a girl named Katie, and we became good friends.

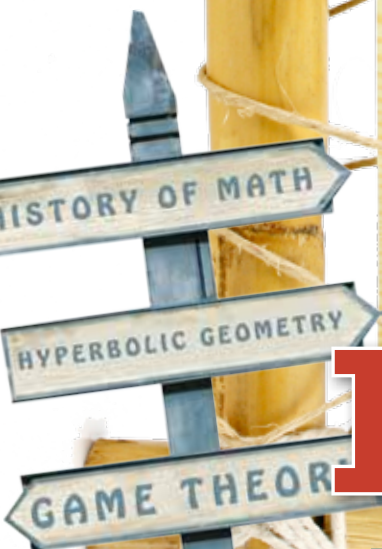
By the end of the first week, everybody had settled in and grown accustomed to life at MathPath. My friends and I would go to classes in the morning and afternoon, and in our free time we would go swimming, play hearts, mao, or mafia, or just hang out and talk. By the end of four weeks, we’d had so much fun that we didn’t want to leave.

### A Unique Community

I learned about MathPath from older students in my math club, and then I went online and looked more closely at what MathPath had to offer. I decided to apply when I saw that it would allow me to study mathematical topics that I might otherwise not see until college, such as analytic geometry, game theory, hyperbolic geometry, additive set geometry, and spherical trigonometry.

When I arrived, I saw why those students in my math club had recommended MathPath so enthusiastically. There were classes on math competitions, such as MATHCOUNTS or Olympiad geometry, as well as on abstract mathematical topics such as group theory, inversion in geometry, vectors, and graph theory.

These topics are covered in breakout courses, which are classes of about 15 people. Every student at MathPath takes two breakout classes per week, one in the morning and one in the afternoon. Each week, there were at least two breakout classes in each time slot that looked interesting to me, and it always took me a long time to decide which classes I wanted most to take. One of my favorites was Mr. M’s mathematical induction course. (Most of



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the teachers are college professors, and we called them by their first name or initials.) Although I was somewhat familiar with the topic, Mr. M presented new examples and taught us to solve interesting problems I'd never seen before.

In addition to breakout courses, there are plenary lectures which are attended by the whole camp. The first class of the day is an hour-long lecture on History of Math. The first two weeks focus on ancient times, and the second two weeks cover the middle ages to the present. After History of Math, everyone goes to their morning breakout course for an hour. Then before lunch, a visiting speaker will give a lecture. The topics of these lectures range from The King Chicken Theorem to Fair Division.

Outside of classes, there are a lot of fun things to do at MathPath. During my free time, I would usually play card games, hang out with my friends, or practice the violin. Other people played tennis, soccer, basketball, or table tennis. On weekends, we signed up for activities such as rafting, hiking, biking, and swimming. I liked these opportunities to get to know my fellow MathPathers, who were interesting and fun people with cool hobbies like juggling, table tennis, chess, and origami. I still keep in touch with many of them.

### Second Time Around

Although I had a great time at MathPath 2009, I wasn't sure if I wanted to return the next year, mainly because of my age.

Would I be the oldest one there? Would there be enough hard classes to challenge me?

In spring, a friend from MathPath sent me an e-mail saying that he had heard that MathPath 2010 was almost full. In this moment, I realized just how much I wanted to return to MathPath. I ran downstairs to tell my mom, and she registered me immediately.

I'm glad I went to MathPath a second time. I took some very challenging breakout courses, including Analytic Geometry, Game Theory, Additive Set Geometry, and Inversion. I also got to know some of my friends from last year, as well as some of the teachers, better. That I got so much out of MathPath my second year says a lot about the strength and richness of its program.

I'm now too old to return to MathPath, but I encourage all middle school students who love math to consider applying. My plans for this summer aren't final, but I am considering applying to MathCamp, known by some as "BigPeople MathPath." If that comparison is accurate, I know I'll enjoy it. **i**



**Gabby Studt** is a homeschool student currently in ninth grade. She enjoys math competitions, studying chemistry, playing the violin, and folding origami.

### More about MathPath

MathPath is a four-week summer program for students ages 11–14. Held each year on a university campus (2011: Colorado College, Colorado Springs, CO), the program brings together 80–90 students from across the U.S. and around the world.

Students apply by submitting two recommendations and their solutions to several challenging problems in algebra, geometry, combinatorics, and number theory. Financial aid is available. Learn more at [www.mathpath.org](http://www.mathpath.org).