November is a month for giving thanks, so I would like to thank my seventh-grade math teacher, Mr. Bender. I’m not sure I realized it at the time, but Mr. Bender’s mathematics class changed my life.

Throughout my elementary school experience, I was a mediocre student in arithmetic. That’s what we called elementary school math back then. I didn’t like memorizing facts and doing all those calculations, so I didn’t learn $9 \times 6$ until long after I was supposed to, and my scores on the Iowa Test of Basic Skills were predictably lackluster.

But in seventh grade, I entered Mr. Bender’s math class. The textbooks we used that year were red paperbacks. I found out later that this was the era of new math, but at the time, I just thought the books were different and kind of cool. What I remember most about that year is not the books, but Mr. Bender introducing me to the world of mathematics. He showed me that mathematics is much more than arithmetic. He helped me discover the beauty of geometry, and to see mathematics all around me. He helped me solve different kinds of math problems, not just one- or two-sentence word problems. He pushed me to think about mathematics by using parts of my brain I didn’t know I had. He challenged me, he motivated me, he inspired me, and he planted a seed that grew into a decision to pursue a mathematical path.

After Mr. Bender, I had the good fortune to experience other great mathematics teachers. Wilhelmina Bell helped me see geometry when I was in high school. She required all of us to carry index cards and toothpicks so that we could model three-dimensional relationships. She seemed to know everything there was to know about mathematics. She expected us to study and work hard. Her bulletin board always showed newspaper and magazine articles about mathematics, and always included clippings about women doing mathematics.

Rebecca Crittenden was another tremendously influential role model for me. She was a young, smart, and creative mathematics professor at a predominantly male engineering university. Her tests pushed me harder than I had ever been pushed before. She tolerated my youthful arrogance while helping me develop the confidence to learn abstract concepts that might have seemed beyond my grasp.

Over the years, I have had the opportunity to know many other wonderful math teachers, both as their student and as their colleague. I have known teachers whose knowledge and love of mathematics was so infectious that their students could not sit in their classroom without growing to like the subject. I have known teachers who made up songs to communicate mathematics to students who didn’t think they wanted to sing or do math. I have known teachers who could think up problems on the spot related to whatever was going on in the world or in their students’ lives. I have known teachers who were tough but fair, challenging their students to learn far more than they ever expected of themselves. I have known teachers whose eyes filled with tears when they described students who were so full of discouragement that learning mathematics seemed impossible to them. I have known teachers who lived to see the light of learning in their students’ eyes. I have known teachers who developed lessons that engaged even the most reticent students. I have known teachers who knew exactly the right question to ask to push their students’ thinking just a bit more. I have known teachers who were so committed to their own lifelong learning that they still learning about mathematics as they reached retirement. I have known wonderful math teachers, each of them unique in their talents. Some were outgoing, creative, and vivacious. Others were quiet and patient. The bottom line was that they all knew mathematics, wanted to keep learning more, and were committed to doing whatever it took to help their students learn.

Thanksgiving is my favorite holiday. I love being with my family, cooking the meal, and even experiencing the general chaos that comes with the day. Most of all, I enjoy reflecting on the many gifts I’ve received during my life. So at this time of giving thanks, I am sending my gratitude to the Mr. Benders, the Wilhelminas, and the Rebecca Crittendens of the world. Thanks for what you’ve given me. And thanks for what you’ve given and continue to give students like me. Thanks not only for the mathematics, but also for believing in and encouraging us. I know that I couldn’t have done it without teachers like you.

If you’ve known a teacher who made a positive difference in your life, what characteristics did that teacher have? What made him or her remarkable? How did she or he help you as a student of mathematics? Join me in an electronic chat on Wednesday, November 30, at 4:00 p.m. ET to share our thoughts about what it takes to be a wonderful mathematics teacher. Please submit your comments online at www.nctm.org/news/chat.htm.

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