

Brown Application Essays

Common Application Essay

As immigrants, there was very little that my parents could do for me. While they worked, I babbled Cantonese with my grandparents, picked up English from my preschool, and studied in daycare. I found it difficult to talk about what I learned in school, much less ask for help.

But math was a blessedly language-neutral subject. One summer, they excitedly brought back a set of competitive math textbooks—in Chinese. That was a mistake. Days later, my dad sat at the kitchen table rubbing his temples as I gleefully waved my ruler around. He lamented about my inability to apply the angle-bisector theorem; I pointed out that I had successfully 'measured' the answer. My numbers are distinctly Chinese, from the way I connect the tips of my 4s to the way I curve my 6s. When I need to memorize phone numbers, I first encode it in a fluid string of Cantonese. My classmates would often hear my murmur the nine-nine chant under my breath as I do multiplication. "... 8-8 72, 9-9 81!"

Middle school hit. My friends and I trekked to another school to join their math meetings. We were a small, giggly group. Once, when we asked why the quadratic formula worked, the high-school volunteer replied unabashedly, "Hey, I only learned this a week ago, you know." These were the days of loving math.

I entered high school, and things shifted. My upperclassmen easily wielded terms like "discriminant," "determinant," and "difference." Eager to catch up to them, I practiced with Khan Academy. I put in my 100 hours. But when I looked back at my friends, it seemed that a canyon had grown between us. They could no longer understand my delight in solving problems, and I only saw them when they were desperate to finish their homework. My middle-school friends turned into math-hating fiends. As a Mathcounts lecturer, I saw this disease spread to my students too. Many of them stared at the paper, pencils set to the side, eyes drooped. I became obsessed with a very quiet question: how do I stop this epidemic of math-hate.

My theories, experiments, and research jumbled together into non-answers. Maybe our materials had to be more accessible. I bought a large whiteboard, set up a tripod, and began recording lectures in my living room. (It turned into a 36-video series, complete with notes.) After reading Malcolm Gladwell's *Outliers* in the dead of the night, I looked at my ceiling and wondered, inanely, if my math skills should be attributed to Cantonese, which purportedly helped me hold more numbers in my head? Or should I look back at my rice-

paddy-farming ancestors, who prized difficult, autonomous work? As it turns out, this was answering the wrong question: I learned to love math long before I was ever good at it.

I challenged the idea that that math was a competitive sport, and that you had to dedicate hours of study and practice to enjoy it. I am here, not just to love math, but to share it. Every time I'm in the math club, there is excitement brewing in my chest and numbers hiding under my tongue. My best friend laughed as we furiously scribble numbers on the whiteboard, racing against the clock. We design competition problems centered around silly cow puns for the annual competition organized by Moo Alpha Theta. And as for Mathcounts—well, many of my math-fearing students graduated, but I get to see them return as my colleagues.

Brown's culture fosters a community in which students challenge the ideas of others and have their ideas challenged in return, promoting a deeper and clearer understanding of the complex issues confronting society. This active engagement in dialogue is as present outside the classroom as it is in academic spaces. Tell us about a time you were challenged by a perspective that differed from your own. How did you respond? [200-250]

Mathcounts meetings were fascinating to watch. Dedicated middle-school mathletes sat in the same classroom as kids who would rather do anything but finish a worksheet. This division in our students was reflected in the volunteers. Our director and our math team captain were focused on the advanced students, who more obviously shared their competitive spirit. I recognized myself better in the confused students. Although the program had swelled to over fifty students, I remembered how close-knit it felt when there were just six of us. Sick of our well-meaning badgering, the director put me and Alex in charge of the beginners' classroom.

Alex and I balanced each other out. With his help, I replaced impersonal lectures with volunteer-led discussions. I combed through old exams, picking out the most important ideas. Then I coalesced my research with his knowledge to create a straightforward curriculum. It was a map of the field for our lost students. While the advanced students focused on a mix of exam problems, our students were armed with notes, formulas, and proofs.

Alex's ambition was matched by my practicality. I drew up intuitive explanations for geometry formulas; he fit in an extra note sheet on modular arithmetic so he could formally prove the divisibility rules. When he wanted to leap into the Euclidean Algorithm and the

Chinese Remainder Theorem, I scaffolded up to these difficult topics with easier problems. By the end of that semester, we had a blend of teaching styles to support both the competitive student and the curious amateur.

Brown students care deeply about their work and the world around them. Students find contentment, satisfaction, and meaning in daily interactions and major discoveries. Whether big or small, mundane or spectacular, tell us about something that brings you joy. [200-250]

I love taking my friends on field trips. When you take a duck out of the pond, you get to watch it waddle. When you take my friends out of school, you get to watch them... exist.

One of my friends is out-spoken about politics, especially about the institution issues in American society. We're always yelling at each other about states' rights and the purpose of the police in government class. Through their eyes, I saw how free the world could be. We go on day-trips in San Francisco, and I become familiar with buses, trolleys, and transit. But take this friend to Peet's Coffee, and they will shrivel up at the prospect of asking for a straw.

Another friend is perpetually stressed about school. The first time they said, "Oh god, I love you," was when I checked over their history essay (after five other people had already looked over it). I've watched them revise their emails five times before. Remove them from school though, and this person is the type to arrive late to the library with a cup of coffee, or dash off in the middle of ice-skating because they forgot to bring a birthday gift.

My friends and I are sometimes trapped in the school circle. But bring them into a new background, and you'll learn so much more about them.

Brown's Open Curriculum allows students to explore broadly while also diving deeply into their academic pursuits. Tell us about any academic interests that excite you, and how you might use the Open Curriculum to pursue them while also embracing topics with which you are unfamiliar. [200-250]

I have a parallel self. She grew up in Foshan, Guangdong, just like her parents. She lives in a rapidly modernizing country, which I can only observe through the TV screen. While I am working on college application essays, she is studying for the gaokao exam. She faces stresses from her parents and her society that I never had. I keep

looking back at this person, and I want to find more pieces of her by taking Cross-Cultural Perspectives on Child Development and Human Development and Education in East Asia.

In another timeline, my parents do not work eight-hour work shifts. They teach me Chinese and help me with math. They enroll me in coding classes and judge my performance in math competitions. They check my grades every week. They're stifling. Would this person be a better, more knowledgeable person? Would this person love Chinese, math, and computer science as much as I do now? What would they know about freedom or self-efficacy? This is what I hope to answer in Family Engagement in Education and Comparative Education.

But in this life, I am a teacher. My personal goals are to study formal methods by taking Logic for Systems and Formal Proof and Verification; I am excited to finish my natural deduction prover project. But outside of those ambitions, I am most excited about the undergraduate teaching assistant (UTA) program, where I can continue to design curriculum and course projects.