

Common Application - Essay Portion - 2nd Attempt

Due Date Unknown

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Title 1: *Q.E.D.*

Title 2: *Gazing into the Depths*

Inspiration appears in many colors. Mine arrived in black and white accompanied by the phrase *quod erat demonstrandum*, Latin for “which was to be demonstrated.” Mathematicians follow a tradition of appending this phrase to the end of a proof to signify its completion. From the outside, its uniformity throughout the subject appears to be an eccentricity of crazy people. I used to agree, but now I am no longer on the outside.

Upon finally understanding the ingenious proof of Cantor’s theorem, I once again felt that familiar sense of wonder towards the giants whose shoulders I now aspire to stand upon. Following this moment of reverence, I experience the ineffable pleasure of rightly viewing mathematical beauty.

After furiously writing the next line of the proof in my notes, I stopped. My professor continued his exposition, but I did not continue writing. Just then, my mind entered into a familiar state characterized by a refusal to acknowledge the passage of time.

The first time I had ever experienced this state of mind was during the winter break of 7th grade, before I had ever heard of the words *quod erat demonstrandum*. I had convinced the head of the math department to allow to move from pre-algebra to algebra 1 after the break so that I could experience the academic challenge that I so desperately needed. However, on the last day before winter break I learned that his acceptance was contingent upon one seemingly impossible condition: that I score near perfect on the algebra 1 midterm exam, having only two weeks to prepare.

Despite experiencing countless struggles throughout those next two weeks, at the

end I gained a new superpower: the ability to truly focus. I could never have foreseen how much passing that exam would change the trajectory of my life for the better. My new superpower became a fierce weapon that was called upon numerous times.

During that lecture on Cantor's theorem, my superpower gained a new target: the otherworldly line of mathematical symbols that I had just written.

These symbols prescribed the creation of an uncanny object. The line did not make sense, yet I understood exactly what it stated. The idea seemed so random, yet somehow I felt that it was anything but random. Still, I could not fathom the object's place in the overall proof.

Hoping to find inspiration hidden in the rest of the argument, I resumed my writing. However, as the proof neared its end, I still could not see the object's place in it all.

Following the argument's conclusion, the shuffling of college students towards the exit signaled the end of the lecture, but I stubbornly continued to stare at my notes. My mind refused to quit until I was certain that I understood how the strange object's appearance led to such an obvious absurdity. Scanning over each line, searching for an inkling of insight, I trudged onward. By the time I had finally grasped the idea of the proof, the room was barren. Noticing me looking up, my professor simply asked me if I understood. Nodding, I simply responded, "Wow."

When gazing upon the development of scientific thought, I used to only see unreachable giants as the impetus for dramatic changes. In that moment, when I emerged victorious against the gibberish in my notes, I sat upon the shoulders of a giant and realized that he was just a mortal, but his idea was immortal. It is immortal ideas such as these that ultimately go on to dramatically change history, and, in doing so, grant their

immortality to the mortals who conceived of them.

Thinking back upon this experience over and over, I eventually ascertained that I too desire to create something immortal.

The above experience