National Merit Essay

Due October 7th, 2020

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September 26, 2020

A Penlight

Prompt: *To help the reviewers get to know you, describe an experience you have had, a person who has influenced you, or an obstacle you have overcome. Explain why this is meaningful to you. Use your own words and limit your response to the space provided on the application.*

To study mathematics is to brandish a penlight against the darkness of the abyss. Hence, it is not surprising that few have the stomach for the matter; the continual ascertainment that one understands nothing presents too grim a fate for most. To the remaining few—triumphant fools who somehow can maintain sanity in the face of a constant feeling of stupid—the subject grants a paradoxical chance to see truth in its purest visage: an art form. Beyond the everyday struggles of studying the truths of the ancient giants, there arrives moments of clarity where one experiences the unrelenting joy of a genuine triumph over the abyss. The purity of this happiness stands uncontested as the experience takes place inside one's own mind, cold and humble without the taint of external influences.

I am now one of these triumphant fools—an acolyte of that crazed cult whose only desire is truth.

My first collegiate pure mathematics course, "MGF 3301 : Bridge to Abstract Mathematics," began with the rather peculiar words: "You will not learn any new material, but this will be the hardest class you have ever taken." Stated more explicitly, the content of the class does not traverse beyond the mathematics knowledge of an average middle-schooler. From this limited information, one likely would conclude that the course

lacks anything of interest; however, when I heard the first words of my professor, I smiled. I knew what I was getting into: something finally interesting. This description begs the question: what was the difference between this course and middle school? Mathematical proof i.e. exhaustive deductive reasoning. Compared to the fuzzy, hand-waving arguments utilized in primary school, real mathematics paints a much clearer, more complete picture. In real mathematics, every statement must be justified, every argument complete. This class was my first introduction to an unscrupulous way of looking at the world that cemented my passion for the activities of the mind.

Every weekday, after my morning high school classes ended, I made my long commute to the local college. During those commutes, instead of uselessly obssessing over the gaping divide between the quality of my university courses and that of my suposedly "rigorous" high school classes, I I spent those drives thinking about problems, questioning my understanding with skepticism, solving, pondering, and mostly failing to understand that mathematical idea which was the subject of the drive that day.

This description