

Calculus I

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Final Reflection

When first introduced to this class, I was, to be honest, very concerned. Hearing that there would be no notes or lectures scared me. In my past, I had been taught math in the traditional lecture format, which followed in these exact steps:

1. The teacher gives notes on a subject.
2. Examples are given based on the notes instructions.
3. The teacher goes over examples three or four times till everyone understands.
4. Homework is assigned that repeats the process learned in the lecture to the point where you can do it in your sleep.

With this structure, I became “good at math.” In other words, I could easily repeat a process shown to me. However, I never grasped the concept of “why” I was doing what I was doing it. I took steps in solving a problem because that is what I was told to do. Sometimes I would be “daring” and would solve a problem a different way. Once again, however, I never knew why I could solve it a different way—I just knew I could.

It was not until I entered this class that I understood the “why” behind every solution. At first, finding the solutions without any instruction was simple enough because in the first half of the semester, everything was review for me. However, the tabled turned when new material was finally being introduced. When the new material was given to me, I had absolutely nothing to go on. Some days I would sit confused, staring at the problem in

front of me for a few good minutes, hoping that maybe that day would be a lecture day. However, my dreams for a lecture day never came (which was actually for the best). Thankfully, I would be in groups with some knowledge that would help guide me in the right direction.

As time went on, I adapted well to the learning environment of the class. I would be more willing to dive into a problem and try out a few things before finding the right solution. That was only because of the write-ups we had to do for our portfolios. The write-ups helped me understand why I would compute things the way I did. Therefore, when attacking a new exploration, I would have the confidence to attempt it because now I actually understood why I was doing what I was doing when doing simple computations, meaning that I could then apply them to the more complex problems and solve them that way.

I have learned so much more in this class alone than I have learned in all of my other classes combined. In my other classes, you only needed to memorize the material and spit it out for the tests. Five minutes after the test, you completely forget what the test was even on. In this class, everything is cumulative. Therefore, you actually need to know what you are doing in order to do well on the tests. You cannot simply memorize the material and spit it out, because in the future, you will most likely need to know the material, and if you forget it five minutes after the test, you are, quite frankly, putting yourself in a lose-lose situation.

I am very grateful that I ended up in this calculus class instead of others because I know for a fact that without this class, I probably would not have obtained this deep of an understanding for calculus. Before this class, I was a dependent learner who needed a

teacher or lecturer to show me how to do a problem. Now, I have grown more independent and do not require help as often as I did. Now, I am not saying that I do not need help with math anymore, because that is the furthest from the truth. I am saying that now I do not need to be babied and I can actually solve things by myself or with a small group of people. This class has helped me grow not only as a mathematician, but as a learner as well.