

---

# Proof Portfolio Reflection

## **A Reflection of the Proof Portfolio for Discrete Mathematics**

Alaina Finley - April 27th, 2019

---

TI feel the best about Part 2. While I feel the most proud of Part 5, I feel that perhaps my induction may have not been done quite correctly. However, in Part 2, I the proofs were direct proofs, and so it was just through the usage of definitions and other theorems that I was able to prove the conjectures. And so, the proofs were pretty to the point.

I feel the least confident about Proof 4. I really struggled trying to solve this counting problem, and while I feel that it is mostly correct, even after continually working on it and really working on improving it, I am not sure if it was done correctly. In addition, conceptually I have found that I struggle greatly with counting and so it was hard to write a proof for something I didn't know if I solved correctly.

I feel that my greatest strength when writing proofs for this portfolio was detecting ways in which I could use past knowledge/classroom concepts to help me prove the conjecture I was trying to make.

The skill I wanted to be better at was being more proactive. To be honest, I felt that towards the end of the semester I did better at being more proactive, and in my other courses felt that I had been able to really get work done, however, I wish I implemented this goal sooner.

I think that I have improved in writing proofs in the sense that I feel better about what exactly a proof is, and how to use knowledge that I had gained in the classroom, to prove concepts I may not have known much about (for example, Part 5, I didn't know much about triangulation beforehand, but after working through the proof, I feel like I was able to use things such as Euler's Formula to successfully prove a triangulation concept. I am quite proud of that proof!)

Overall I felt that this was a valuable project. I thought that learning how to write using LaTeX was a very useful skill and something that if I want to pursue more of a research based career path, could prove to be very beneficial. One thing I would suggest would be in the instructions, perhaps provide a little more detail as to what "Meets Expectations" and "Excellent" entails. I spent a significant amount of time working on these proofs and still by the end was unsure if my proofs met expectations/were complete or not.

---

Learning how to write proofs and create a portfolio as such demonstrates the Westminster College Learning Goal of Communication.