## Lab 4

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- 1. I learned about op amps and what they are and how they work. I did not know how what op amps or even active filters are, but now I understand that there are filters that can amplify a signal by accepting power from a different power source. I also learned about op amps, and that they are a component that can amplify an input voltage based on the resistance across their connections.
- 2. I learned about what a proper breadboard connection should feel like, as I had a resistor slide along the bottom and not make a proper connection. I also learned more about using the auto zoom feature on the oscilloscope, what I found most helpful in this lab was only having horizontal auto zoom, and adjusting the vertical zoom manually.
- 3. After being completely stuck with a weird problem where no matter what I did the gain was 1, I completely redid the circuit, and tried reducing the number of wires. This initially did not work, but it gave me a different output than before. After messing around with the connections I noticed one of the resistors slid in further than it should, and when I moved it to a different pin on the ground rail I started getting a normal output.