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Math 241: Lab 1

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### Lab 1 Reflection

I made two different visualizations of the number of steps I took daily in the last two weeks, specifically from January 24th, 2021 to February 6th, 2021. I decided to track the number of steps I was taking because I had set a goal before the semester started to reach at least 10,000 steps a to stay active. Obviously and unfortunately, I did not meet that goal every day, especially during the second week of my data collection. Still, I realized during the second week, when I had little to no motivation to go outside for a walk, that my data tells a different story: it is easier for me to reach my goal the days I have to walk to campus for class or to get tested for covid.

The first graph, which I call "the stick figure visualization," is similar to a sideways bar graph; each day is visualized horizontally. The number of stick figures represents the number of steps I took each day; one stick figure represents 1,000 steps taken. Using stick figures is a fun choice to use to signify steps instead of a traditional bar graph since I, a human, walked to get those steps! The color of the stick figures represents the day of the week. I chose to make the different days of the week identifiable in order to more clearly articulate patterns; for example, I take a lot more steps, on average, on Mondays, Wednesdays, and Thursdays, and using the same color for those days makes that more explicit. I walk more those days because those are the days I have to walk to campus. That is why I added the red checkmark to the visualization to explain to the viewer which days I had to walk to campus; there is a correlation (albeit, an obvious one) between the days I have to walk to campus and days where I take a lot of steps.

The second graph looks more like a traditional bar graph, but instead of bars its lines, and I call it "the finish line visualization." This visualization has the number of steps on the y-axis and the days of the week on the x-axis. There are two colors on the graph that represented the data I gathered: the red lines that represents the first week of my data collection, and the blue lines that represents the second week. I chose to organize the graph as such to compare the steps from one week to the other on each corresponding day. I added a horizontal yellow line at the 10,000 step mark to represent a finish line; this is in reference to the daily step goal I set. This graph shows a comparison of motivation and time I allocated to reach that goal each week. Week 1 I focused on meeting that goal far more than Week 2. I also identified the days of the week I go to campus on this graph as well.

As for which of my two visualizations was more effective in telling the data story, it is hard to say. I think the stick figure visualization is more interesting to look at, but as for comparing the steps I took each day on those two separate weeks, it was harder to read. It also does not tell the exact number of steps each day; it only captures each 1,000 steps walked. I think the finish line visualization was able to tell the story better, as it also included my daily step goal and most directly compared the weeks and each day of the week.