**Problem 1:**

Score with weight 1: 85.8727

Score with weight 2: 86.8727

**Problem 2:**

**A graph of a graph

Description automatically generated with medium confidence**

Similarity between Apple and Microsoft: 0.3270

Similarity between Apple and Qualcomm: 0.8243

Similarity between Apple and WTC: 0.0832

I couldn’t easily observe the similarities, since they were all miniscule compared to Apple. Then I noticed that Qualcomm’s graph was the closest to Apple’s.

**Problem 3:**

1.) A blue lines on a white background

Description automatically generated

Interesting portion: the apparent “peak” of the graph of the .wav file.

**2.)** I saw a red squiggly line that stood out and overlapped the larger patterns behind it. I think it’s the representation of the ringing noise on the spectrogram graph. I think the red squiggly line is a representation of the violin note

**3.)** I heard a ringing noise over violin music playing in the background

After I played the filter, the ringing sound still played for a split second in the beginning, but afterwards I only heard the violin music

The noise still plays at the beginning for 0.5 seconds.