

### PROBLEM I.3 - PARTIAL SUM

Allison Davis

February 9, 2019

1. My third partial sum:

$$\sum_{i=1}^n \sin i$$

I chose this because I wanted a closer look at a familiar function to get a better understanding of the programming.

2. The first series looks like it is diverging to infinity. The second series seems to be converging to 1.01106503. The third series is diverging because it keeps going back and forth between positive and negative numbers. To reach these conclusions, I looked at a lot of terms. I looked at up to 1,000 terms to make sure it was continuing to do what I thought it was. I knew the first was going to infinity because the numbers kept growing no matter how many terms I looked at. With the second series, it kept returning 0.01106503 so I knew it was converging.