## Part IV: Fourier Analysis

- 3) In the plot of the signals I observe periodic fluctuations due to the periodicity of  $\beta$ . It appears that the signals oscillate.
- 5) Looking at the plot of the spectrum for infected cases there is 1 peak at 1 day. This makes sense physically.
- 6) With the value of Omega being changed the plot of the spectrum for infected cases now has 2 peaks. These peaks shifted to lower frequency values.

