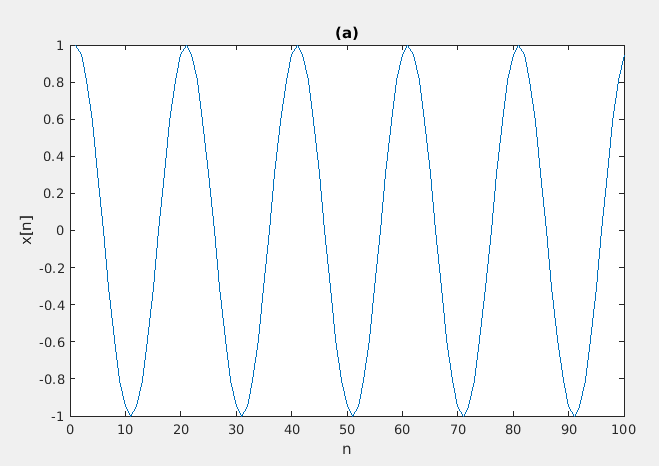
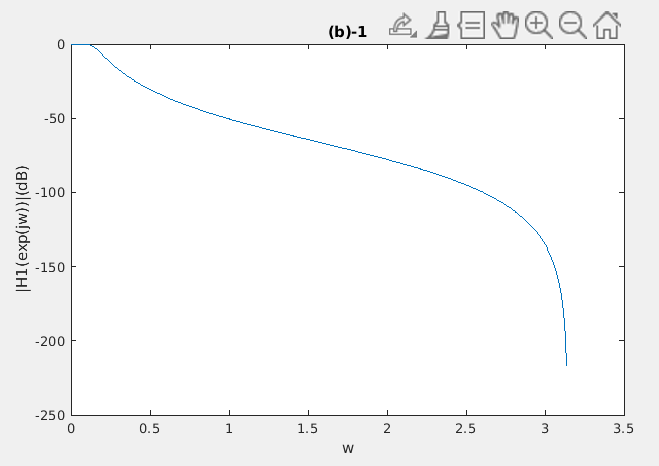
Matlab homework 3

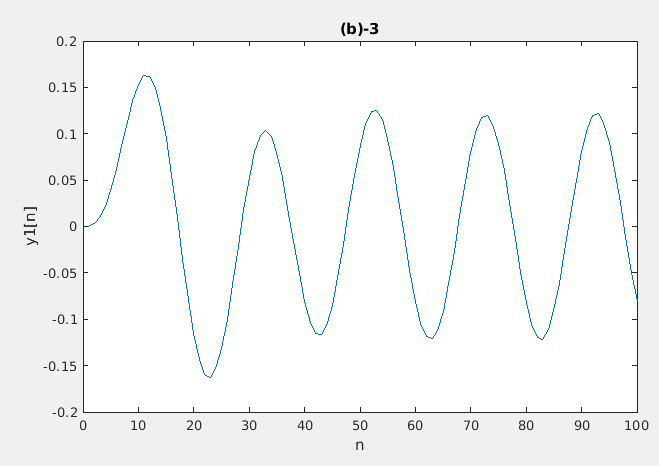
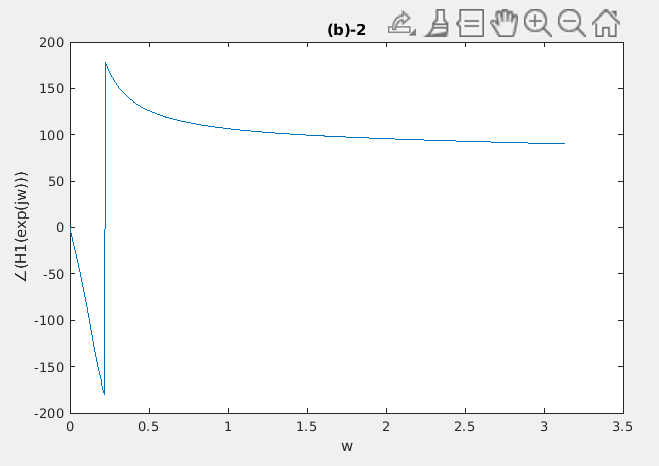
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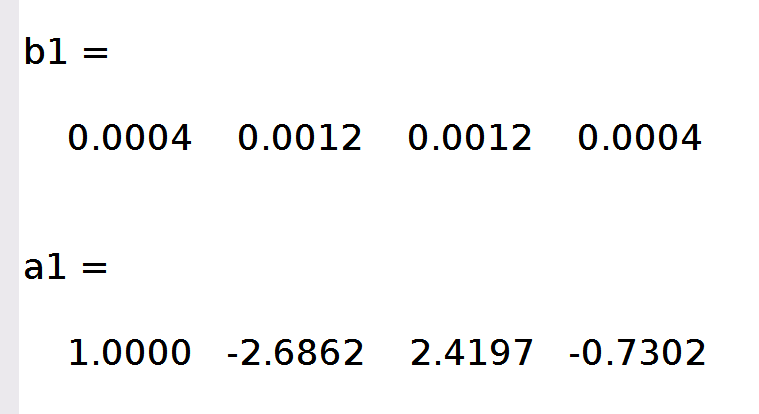
1(a)



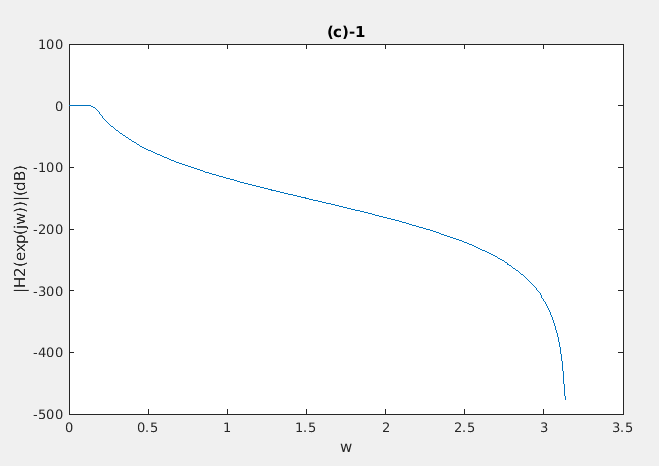
1(b)

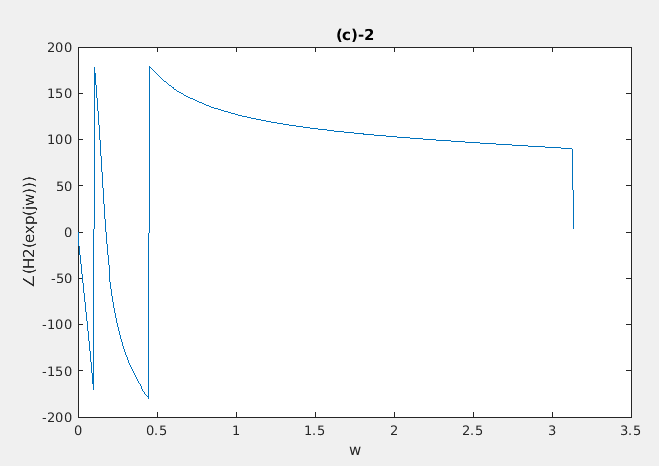


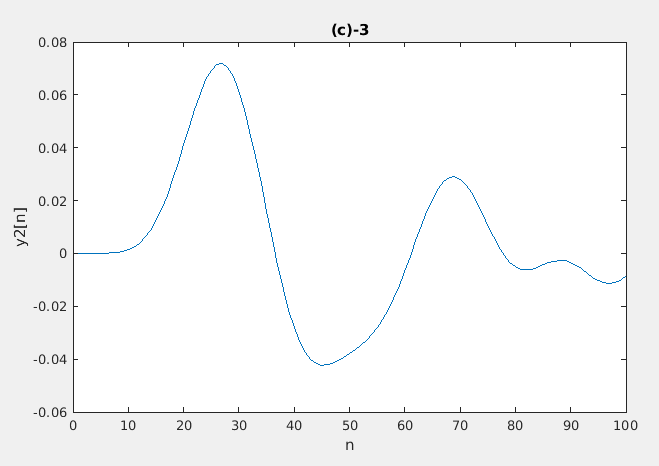


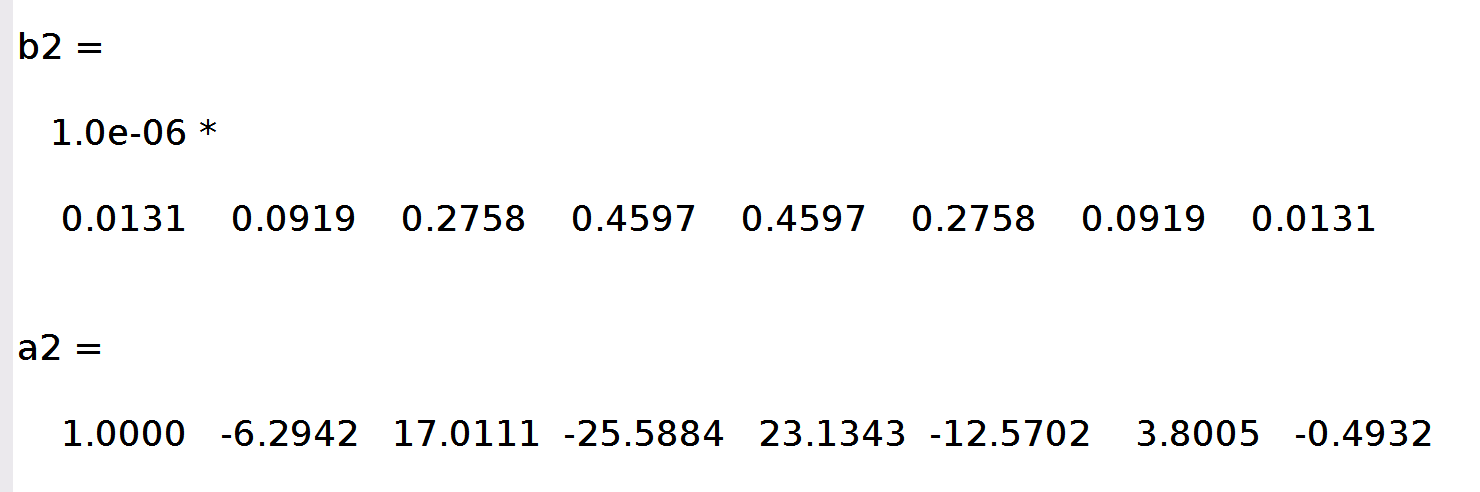


1(c)

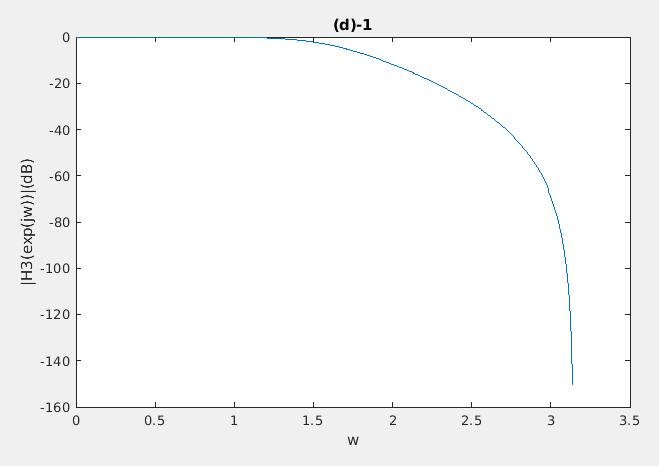


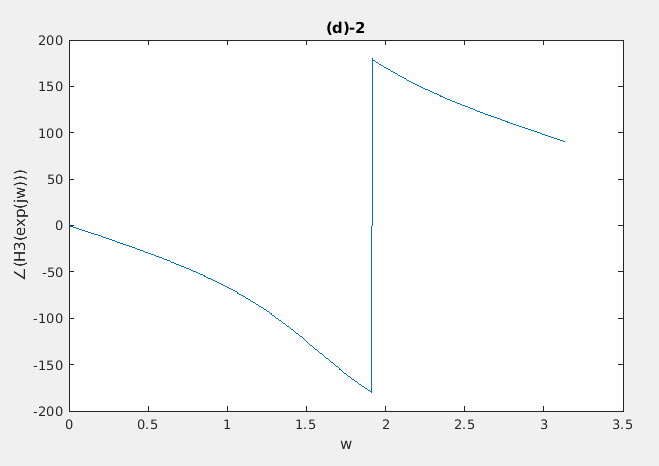


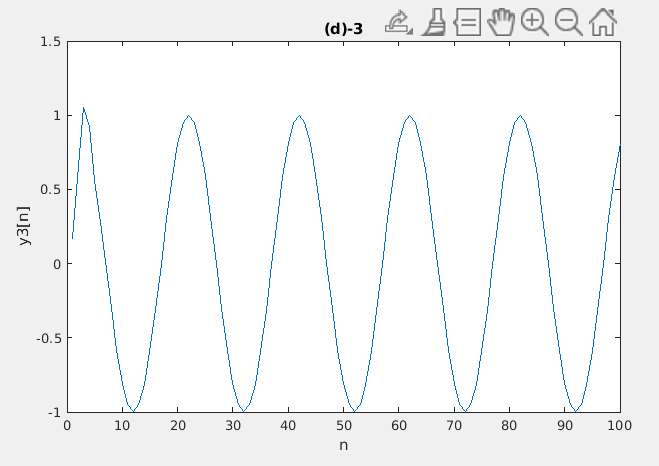


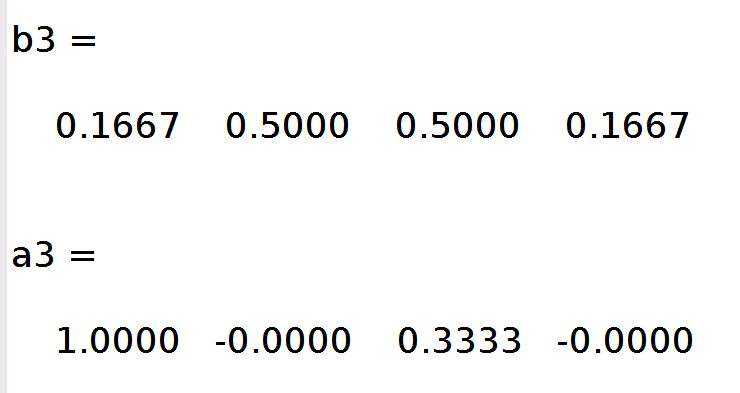


1(d)







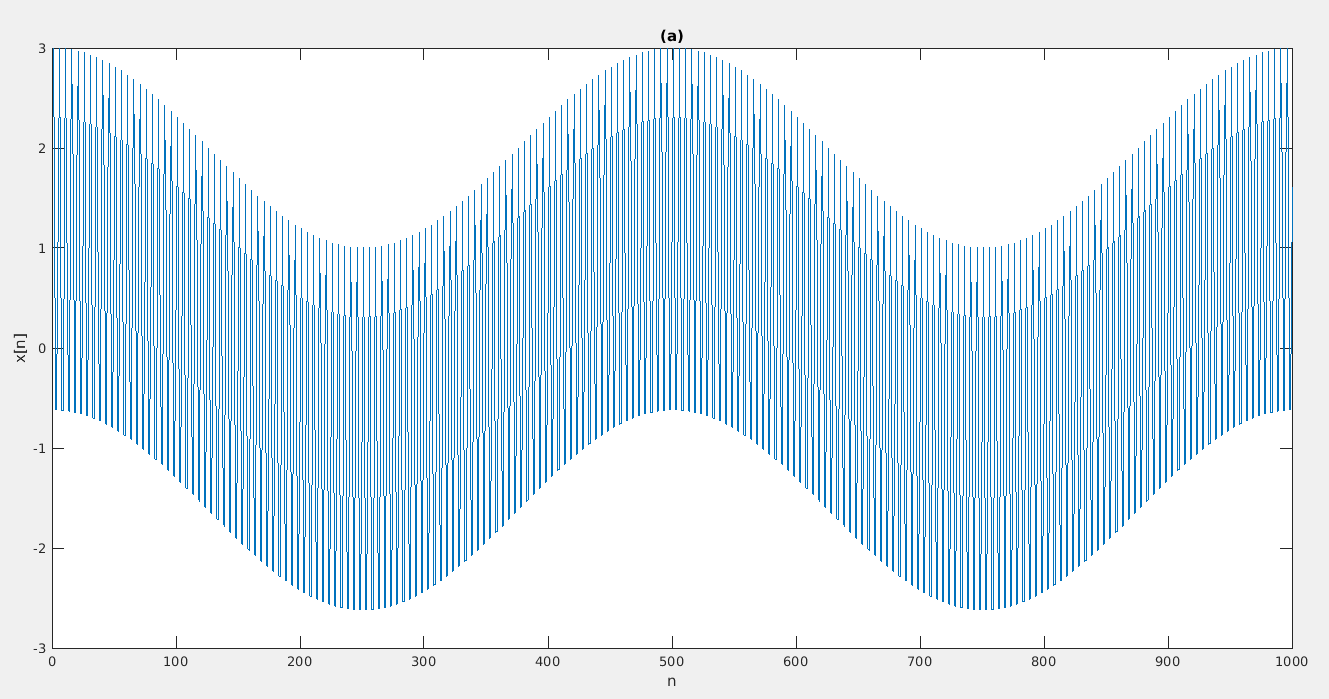


1(e)

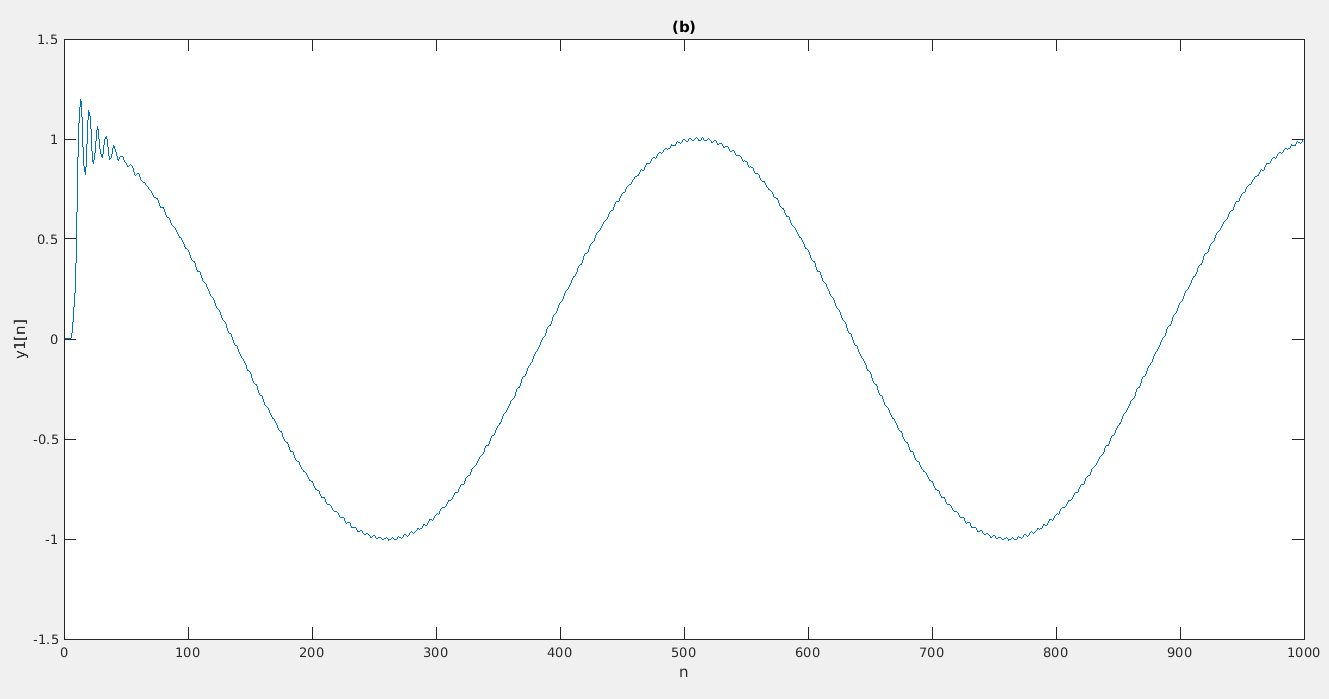
Increase : improving the filter by the sharper cutoff and so that the frequency domain of the filtered signal is more similar to the frequency domain of the original signal.

Increase : The law pass filter will filter higher frequency. In this case, compared to the previous two system, we can find that the law pass filter let almost all frequency pass so that the filtered signal is similar to the original signal.

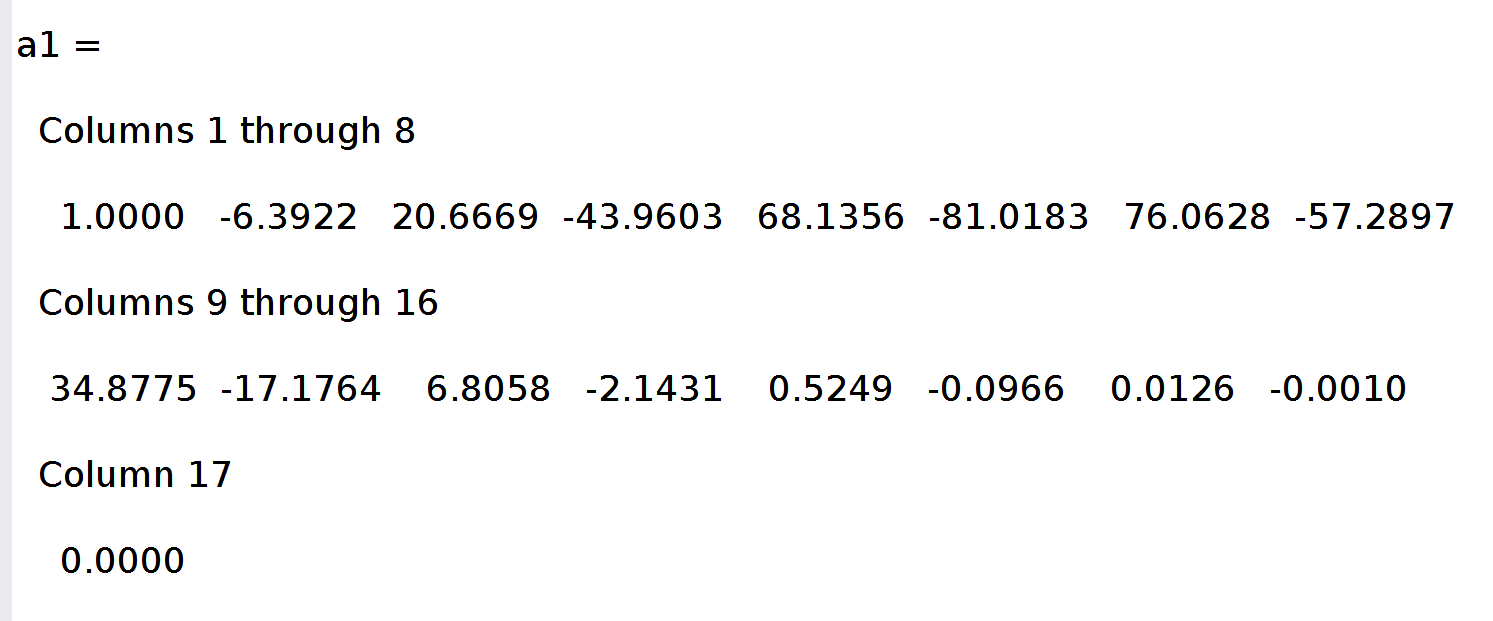
2(a)

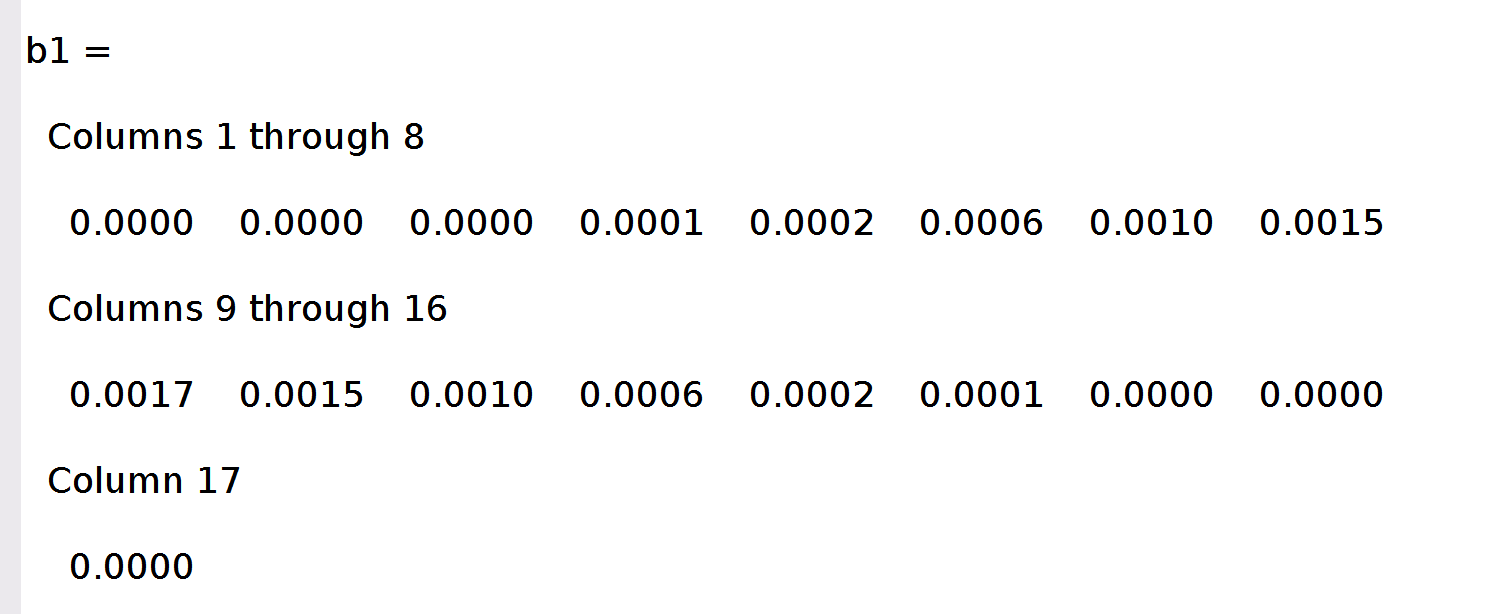


2(b)

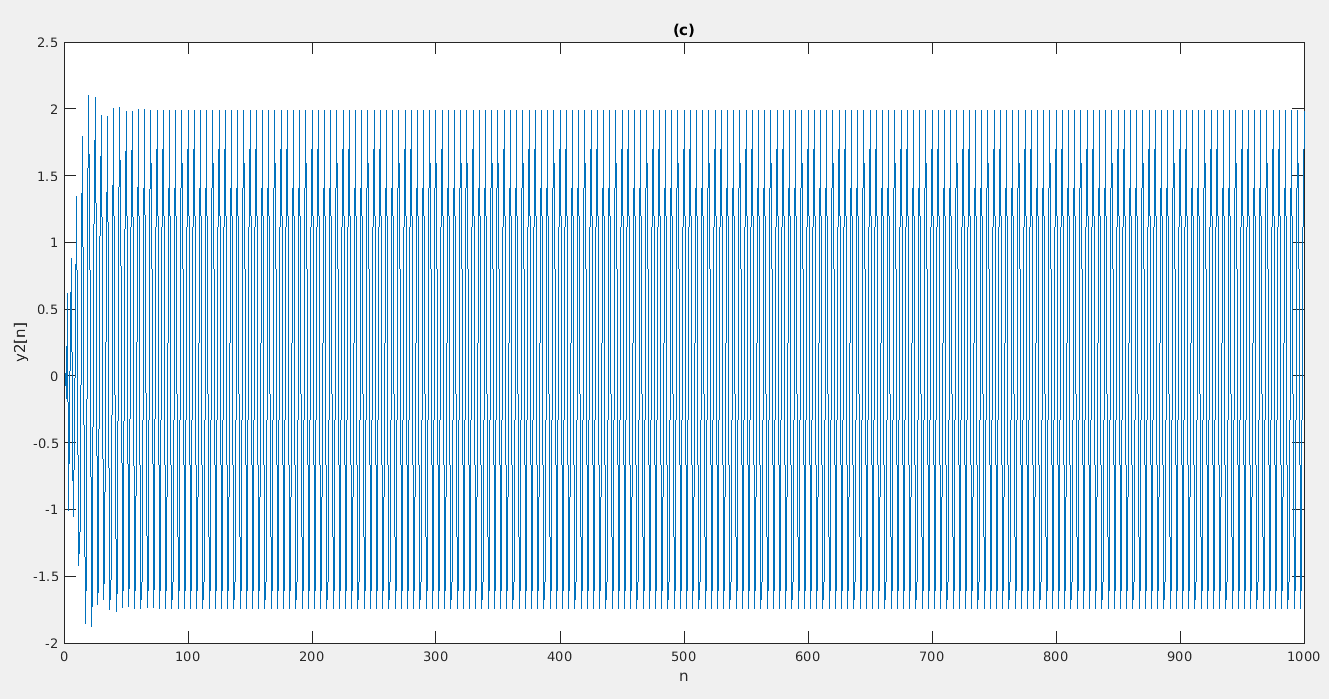


Cutoff frequency: 0.3 Hz





2(c)



Cutoff frequency: [0.3 Hz, 0.8 Hz]

