I. Convolution Property of GFT:

1. Consider the following signals on a Bucky ball graph, $x1(n)$ $(inputSignal.mat)$ and $x2(n)(inputSignal1.mat)$ then plot the convoluted output $(y(n))$, for the following systems Where $h_1(n) = [0.5,0.5], h_2(n) = [0.5, -0.5], h_3 = [0.5,0.5, \dots ,0.5,0.5], h_4 = [0.5,0.5, \dots ,0.5,0.5] and\ h_5 = [0,1,0, \dots ,0,0]$. *P*lot the same thing on the graph.

II. Filtering

1) Plot the highest variation signals(defined in 1) on the bucky ball graph
2) Plot the zero variation signals (defined on 1) on same graph.
3. Define Low pass filter in GFT domain (passing only smallest three variations)
4) define High pass filter in GFT domain (passing only 5 high variations)
5) define Bandpass filter, which maximizing middle variation by 10
6 Define Bandstop filter which minimizes highest variation by 40 dB
7) plot the outputs of (4,5,6) on Bucky ball graph.