1. Given the following plot of the sequence of data \( x[n] \)

![Plot of sequence \( x[n] \)]

plot the following sequences (Hint: use the stem() function):

- a. \( x[-n] \)
- b. \( x[n-2] \)
- c. \( x[-(n-2)] \)

2. Select two image files of your interest (call it \( \text{Im1}(x,y) \) and \( \text{Im2}(x,y) \)) and perform the following operations:

- a. \( \text{Im3}(x,y) = \text{Im1}(x,y) + \text{Im2}(x,y) \)
- b. \( \text{Im4}(x,y) = \text{Im2}(x,y) + 2*\text{Im1}(x,y) \)

Explain your results

3. Select one image of your interest (\( \text{Im}(x,y) \)), and apply to it the following MATLAB functions:

- a. \( \text{imadjust}(\text{im},[0 1],[1 0]) \)
- b. \( \text{imadjust}(\text{im},[0.5 0.75],[1 0]) \)
- c. \( \text{imadjust}(\text{im},[,][,2]) \)
- d. \( \text{new} = 2*\log(1+\text{double}(\text{im})) \)
- e. Apply the following function \( \text{im2uint8(mat2gray(new))} \) to the image obtained in d)

Explain your results