
```
clc
clear
close
warning off
% import image in current folder and read
img=imread('Q01_4.jpeg');
% make it grayscale image
gray_img=rgb2gray(img);
% size of image
[row_img,col_img]=size(gray_img);
% resize image img
Img=imresize(gray_img,256/min(row_img,col_img));
Img=Img(1:256,1:256);
% part a
% extract first row of gray scale image
first_row=Img(1,:);
% Z Transform of first row
first_row=sym(first_row);
first_row_z=ztrans(first_row);
% % part b
% DFT of second row
second_row=Img(2,:);
second_row_fft=fft(second_row,5);
% plot image and DFT
figure
subplot 211
imshow (img)
title('Original Image')
subplot 212
imshow(gray_img)
title('Gray Image')
figure
stem(second_row_fft)
hold on
plot (second_row_fft)
title('DFT Samples')
```

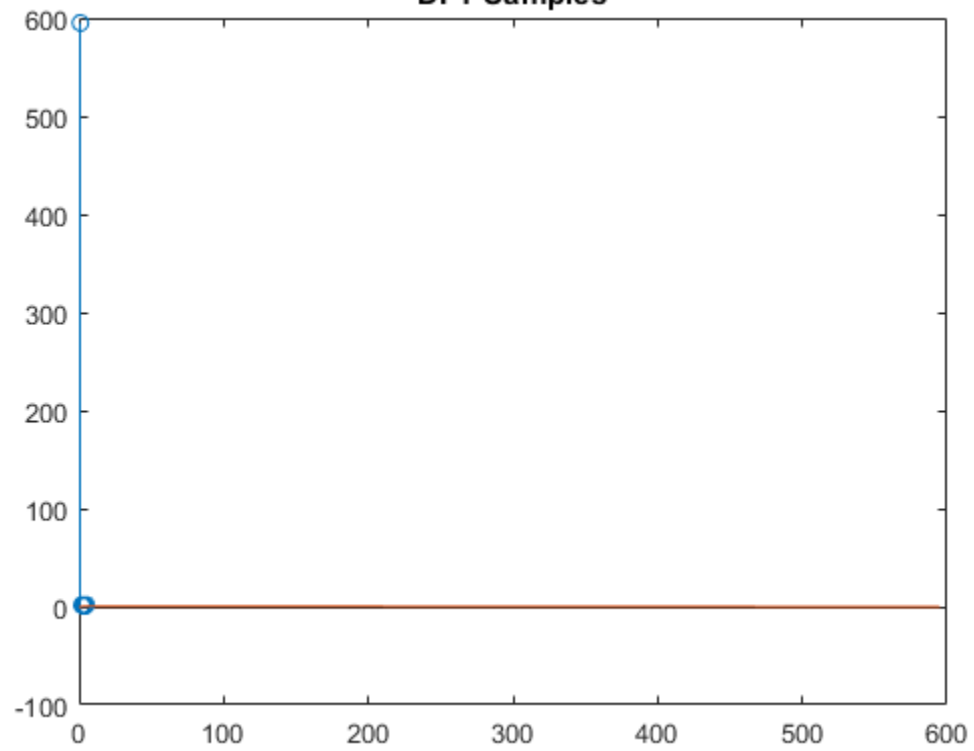
Original Image



Gray Image



DFT Samples



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