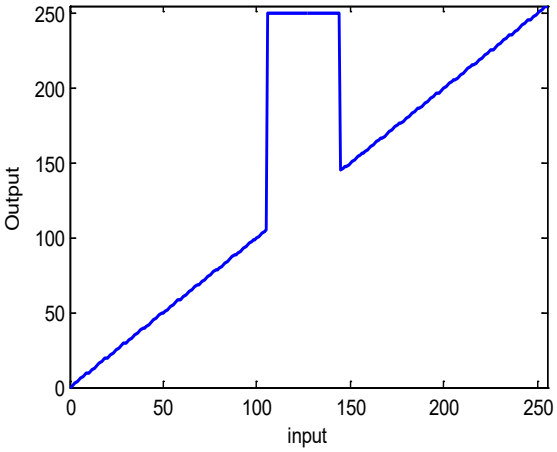
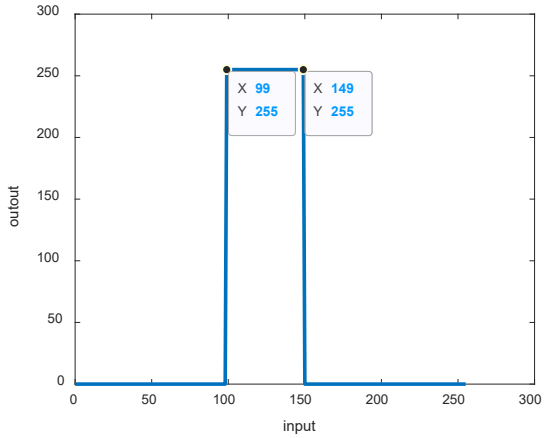
ECE 5470 Digital Image Processing
Homework # 2

Due Date: February 10, 2020 4:00 pm

1. Gray Level Transformation
   a. Write MATLAB code for power-law transformation $s = cr^{\gamma}$ and to apply the following images with coefficients.
      i. γ=0.4, c=1 apply Fig2-1.jpg
      ii. γ=2.5, c=1 apply Fig2-2.jpg

2. Write MATLAB code for gray level slicing transformation and apply the image Fig2-1.jpg,





Your report should include the original images, the enhanced image, and a plot of the transformation function. Analyze the output images and explain the results

3. Write MATLAB code for log transformation $s = c\ log(1 + r)$ and to apply the Image Fig2_6.tif with coefficients.
   i. c=0.5 ii. c=1
   (Not: Convert the matrix value to double before applying log transformation)

   Your report should include the original images, the enhanced image, and a plot of the transformation function. Analyze the output images and explain the results

4. Test Log transformation $s = c\ log(1 + r)$ and power-law transformation $s = cr^{\gamma}$ code on the Image Fig2_8.tif to get your best enhancement and show your result.