Part 1:

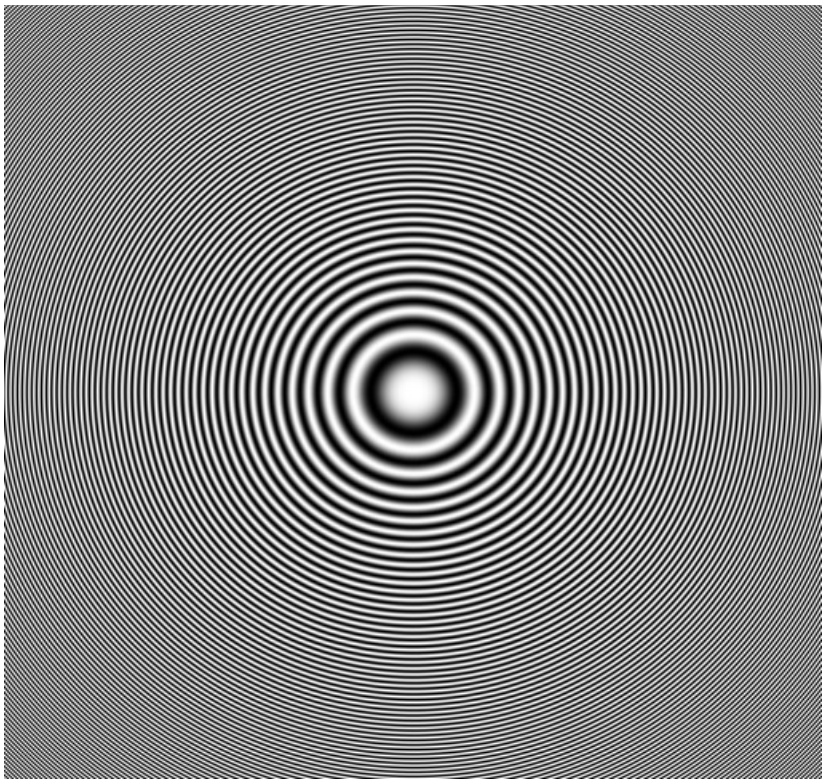
Part 1 be run using MyMainScript.m in folder relative path 1/code/ which will cal all the require functions and will generate the output images.

a. MyShrinkImageByFactorD()

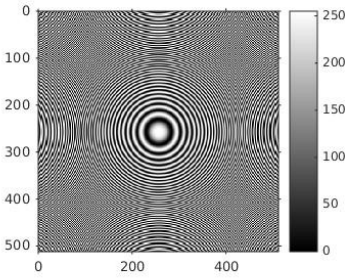
Shrink the size of the image by a factor of 2 and the by the factor of 3. The Moire effect will easily visible as we shrink the image more and more.

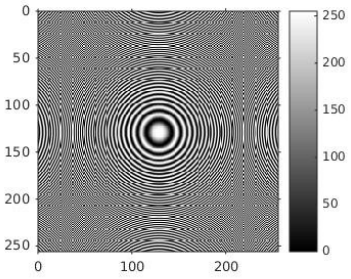
Output of MyShrinkImageByFactorD() function:

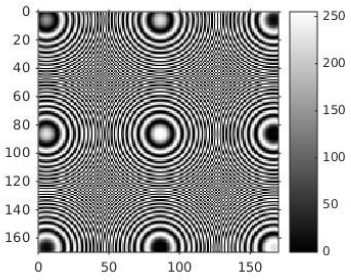
Original Image:



Original picture and then shrink by factor 2 and 3 respectively:

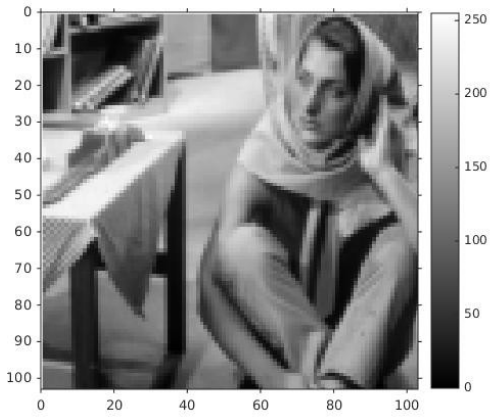


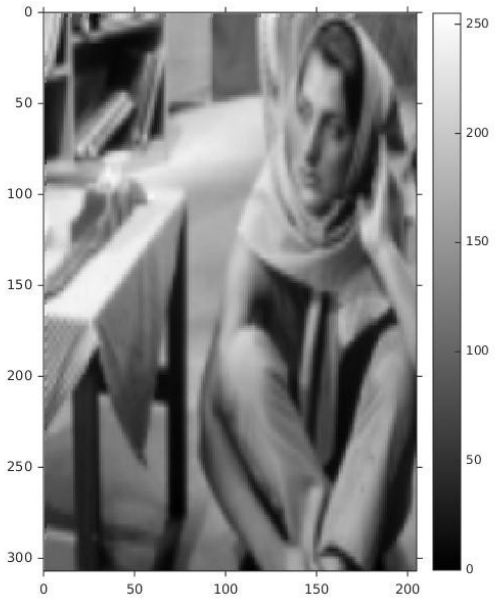




b. myBilinearInterpolation()

Bilinear interpolation increases the size of the image by a given value. The snapshot of original and output image has been given below in the same order:





c. myNearestNeighborInterpolation()

Nearest neighbor interpolation increases the size of the image by using the intensity values of its neighbors and finds its proper value of intensity. The output of original and enlarged image has been given below: