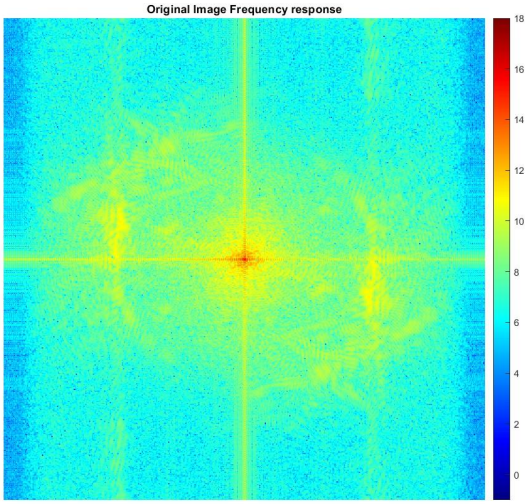
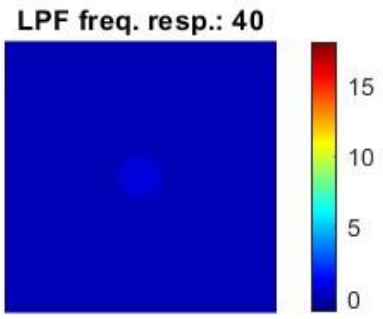
Question 2

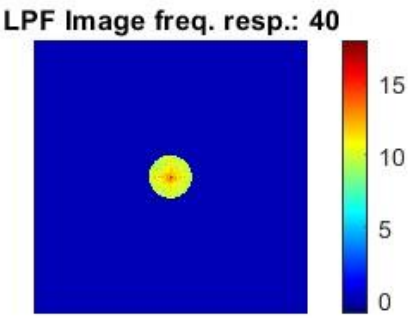
Original Image and Its Log Absolute Frequency Response

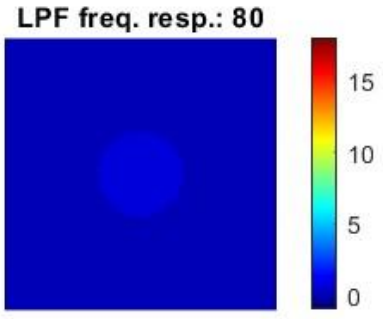


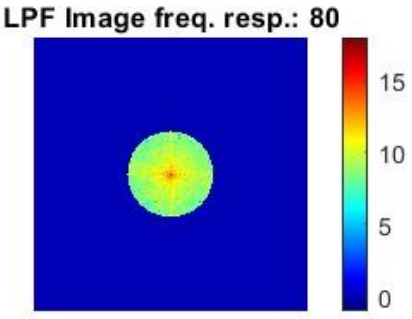
Low pass Filtered Images

Low Pass filter and Low pass filtered image Log absolute Frequency Response



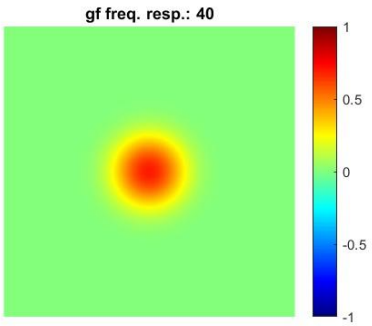


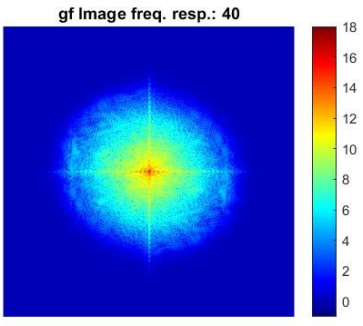


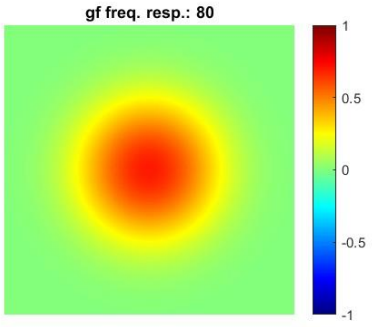


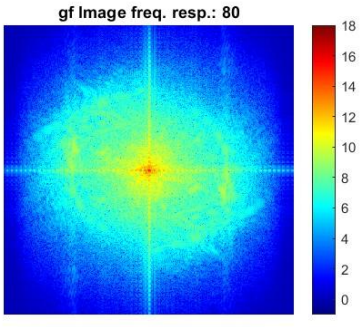
Gaussian Filtered Images

Gaussian Filter and Gaussain Filtered Image Log absolute Frequency Response









Observation

1. In low pass filter image horizontal and vertical blur black lines start to appear while blur is not so smooth because all frequencies become zero after cutoff frequency, but in case of gaussian filter there is very smooth blurring because frequencies start to decrease exponentially after cutoff frequency.