**Class Lab 7**

Use two images for each operation to do the following operations and write down their advantages and disadvantages and explain your results:

1. **2D DFT (lena, bridge, rectangle):**

**Algorithm:**

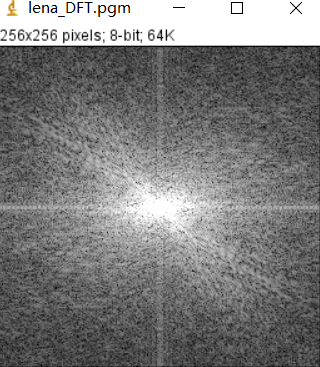
**Results (including pictures):**

Result of processing “Lena.pgm”:

Source Image:



Result after DFT:

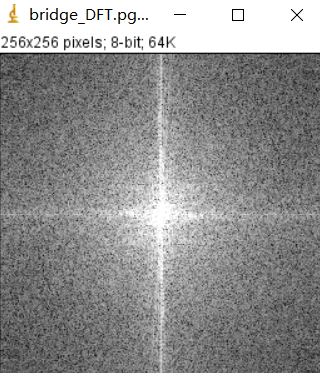


Result of processing “Bridge.pgm”:

Source Image:

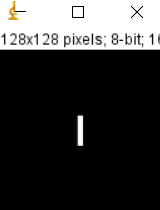


Result after DFT:

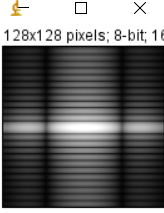


Result of processing “rectangle.pgm”:

Source Image:



Result after DFT:



**Discussion:**

The components of the spectrum of the DFT determine the amplitudes of the sinusoids that combine to form an image. At any given frequency in the DFT of an image, a large amplitude implies a greater prominence of a sinusoid of that frequency in the image. Conversely, a small amplitude implies that less of that sinusoid is present in the image. **Codes:**

