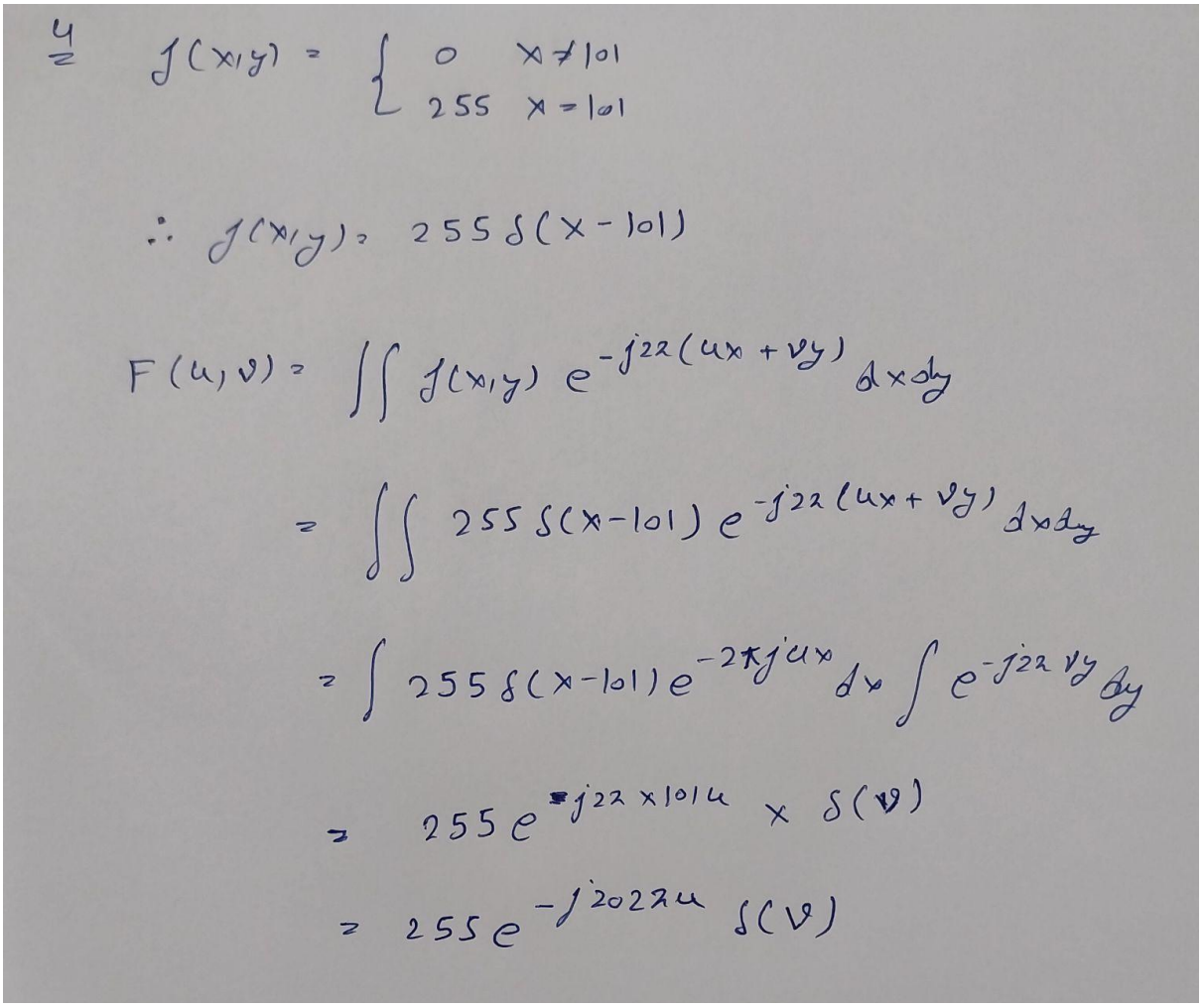
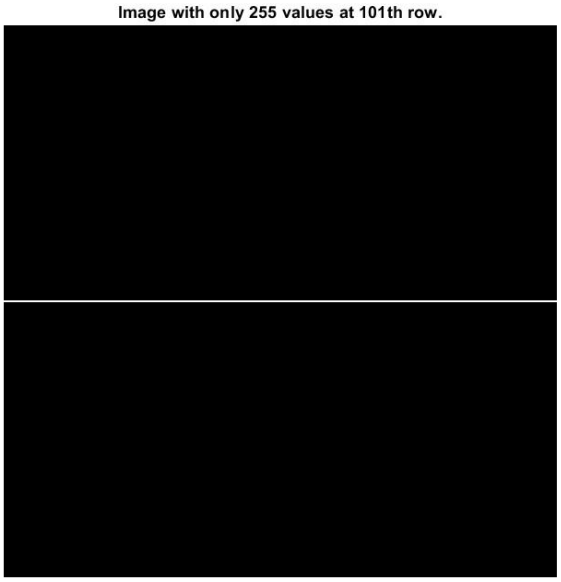
Question 4.

Analytical Proof



Result from Matlab

1. Image



2. Frequency response