Figure 1:

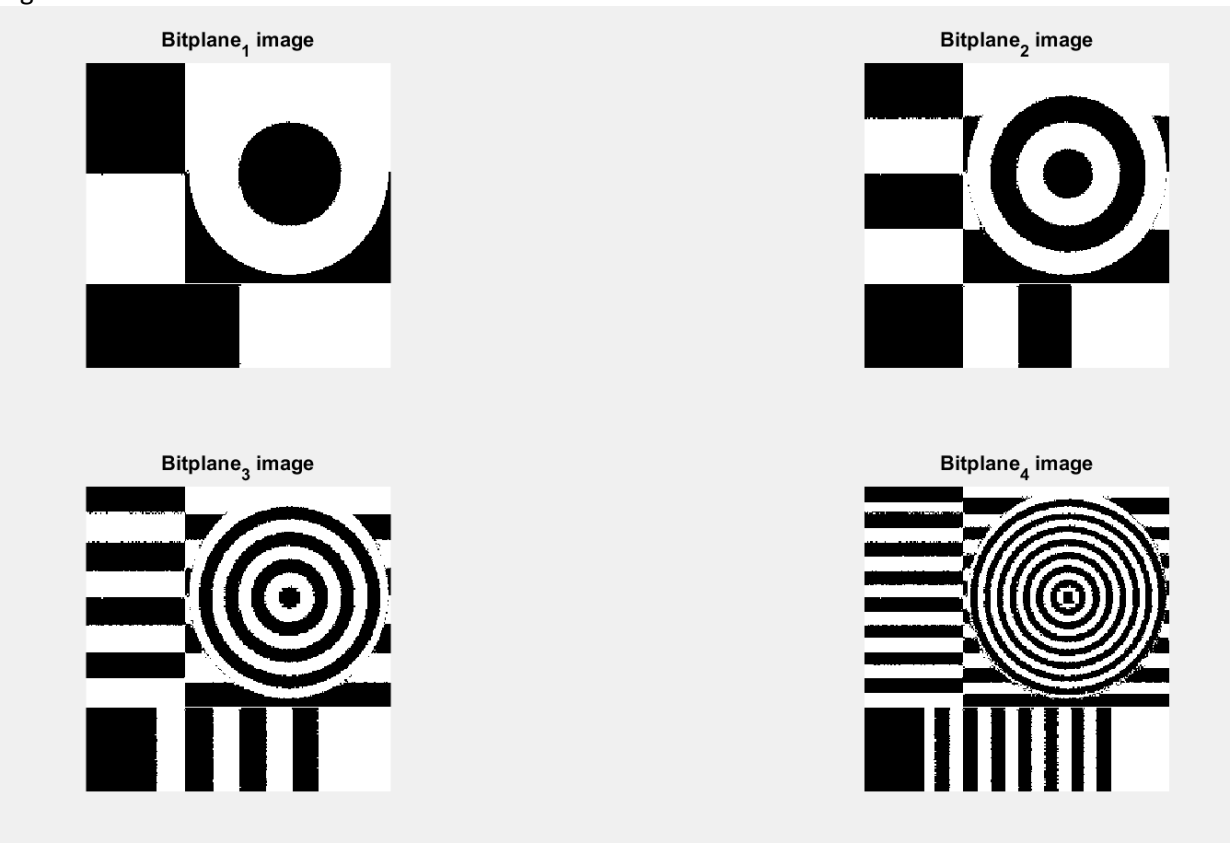

Bitplane1 image
Bitplane2 image
Bitplane3 image
Bitplane4 image

Figure 2:

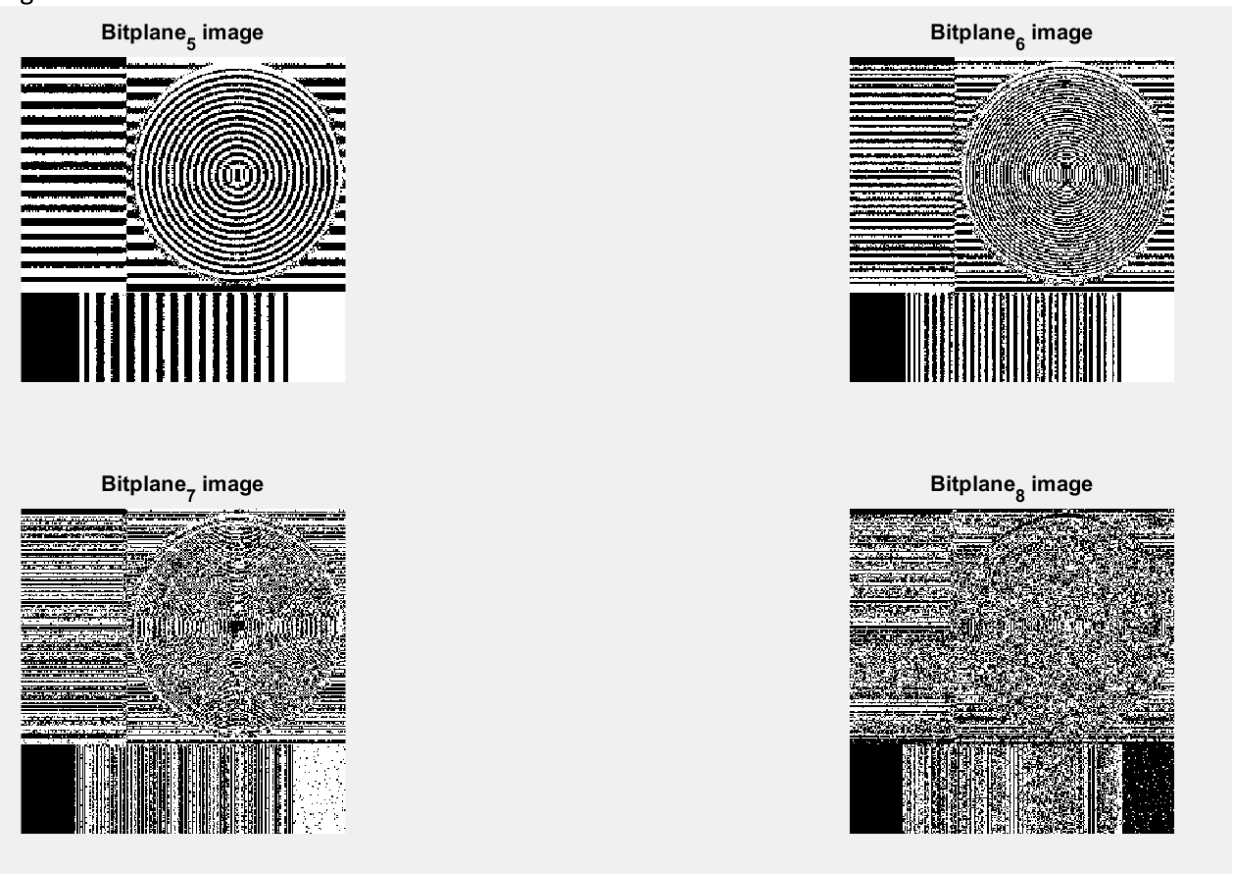

Bitplane5 image
Bitplane6 image
Bitplane7 image
Bitplane8 image

Figure 3:

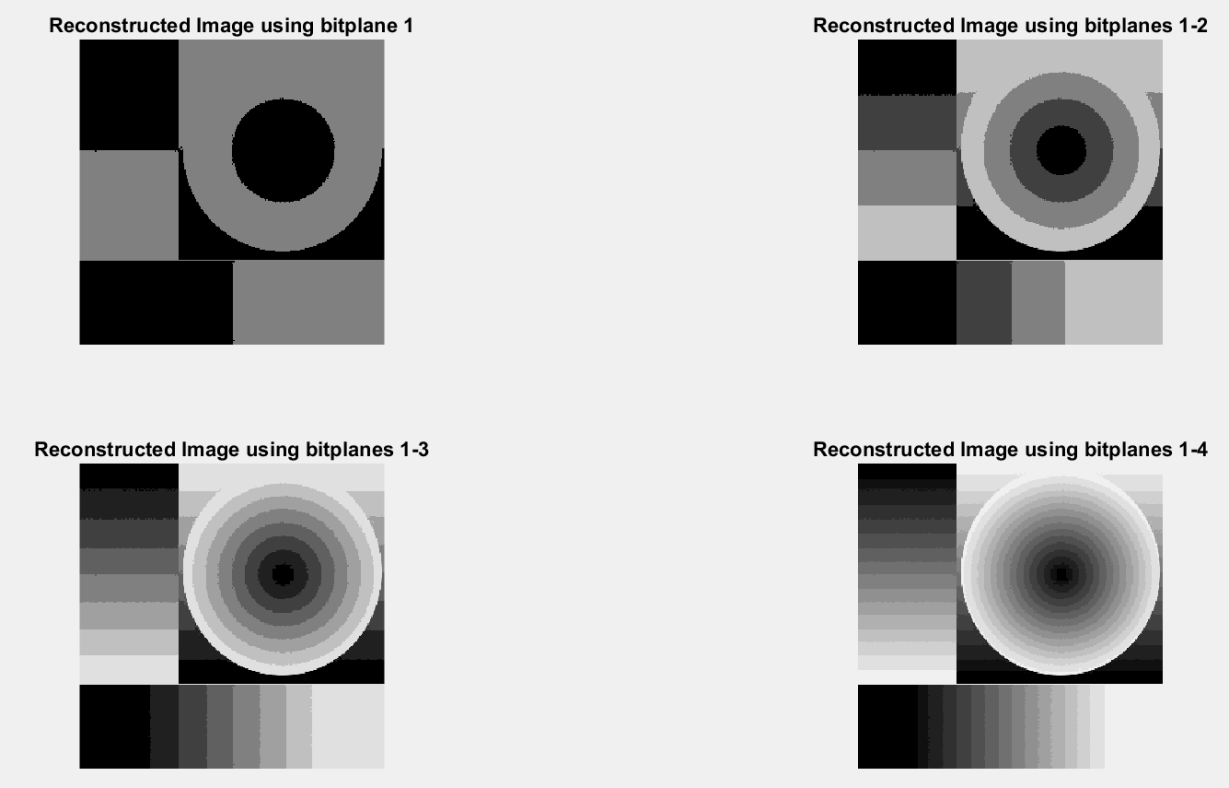
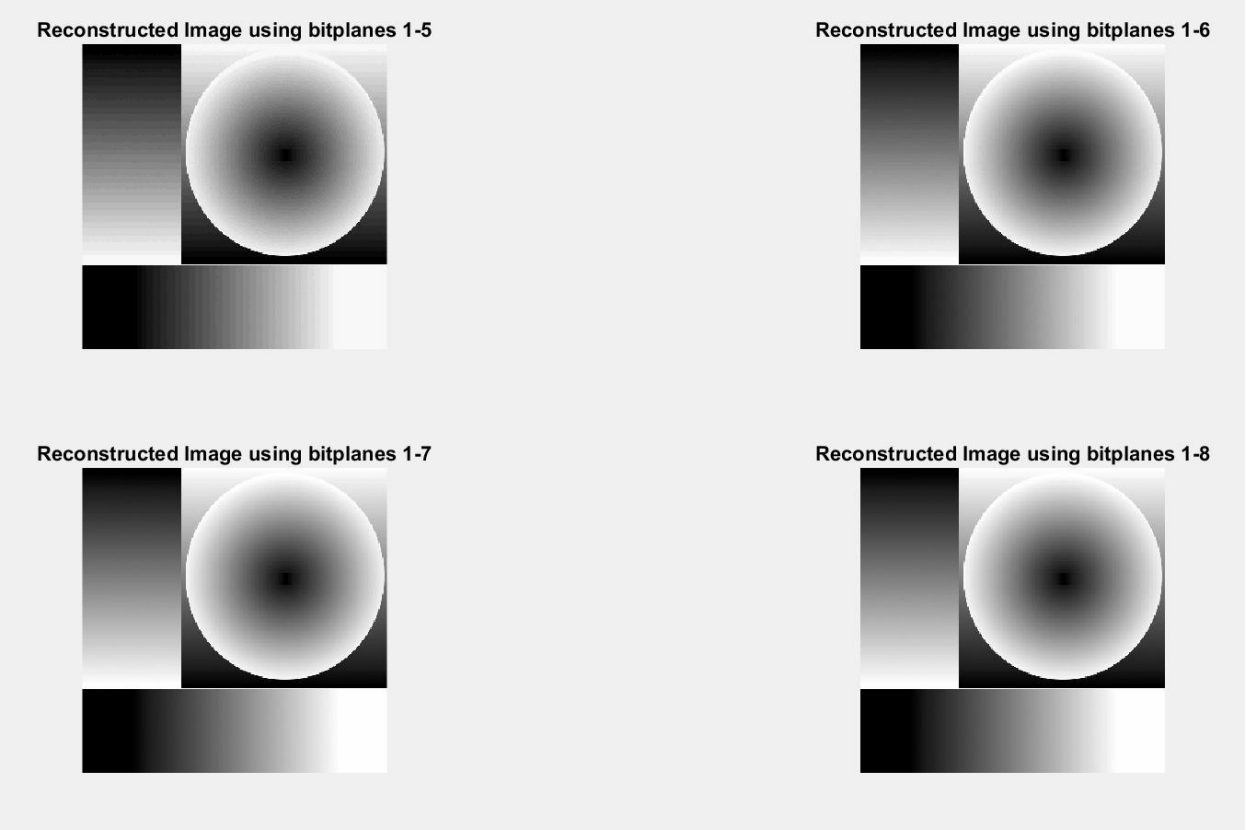

Reconstructed Image using bitplane 1
Reconstructed Image using bitplanes 1-2
Reconstructed Image using bitplanes 1-3
Reconstructed Image using bitplanes 1-4

Figure 4:



Q1 Observation:

The original image is broken into multiple bitplanes (8 in all) in Figures 1 and 2, creating the appearance that the image has been fractured into 8 layers. After we recreated the image from these different bitplanes one at a time, two at a time, and so on, we can see the picture recovering its prior look bitplane by bitplane. The picture takes almost all of its shape in the first four reconstructed photographs in Figure 3, while the remaining rebuilt photos in Figure 4 are merely adding to the finer definitions. Because the first four Bitplanes 1-4 are the most significant, while Bitplanes 5-8 are the least crucial, we observe this. As demonstrated in the reconstruction, the upper bitplanes contain the bulk of the structural data, while the lower bitplanes contribute the distortions and gray areas. The reconstruction shows that a 6 bitplane reconstruction can almost precisely match the original image.