Kmeans Clustering

0	8	16	20	32	40
0	8	16	20	32	40
0	8	16	20	32	40
0	8	16	20	32	40
4	20	20	30	36	40
4	20	20	30	36	40
4	20	20	30	36	40
4	20	20	30	36	40

1. Use K-means to segment the image based on the grey level only. Use K=3. Draw the resultant segmented image by coloring each pixel according to its segment.

2. Use K-means to segment the image based on the grey level and pixel location. Use K=3. Draw the resultant segmented image by coloring each pixel according to its segment.

3. Suggest an objective function to measure the quality of the segmentation and use this function to compare between the three segmented images.