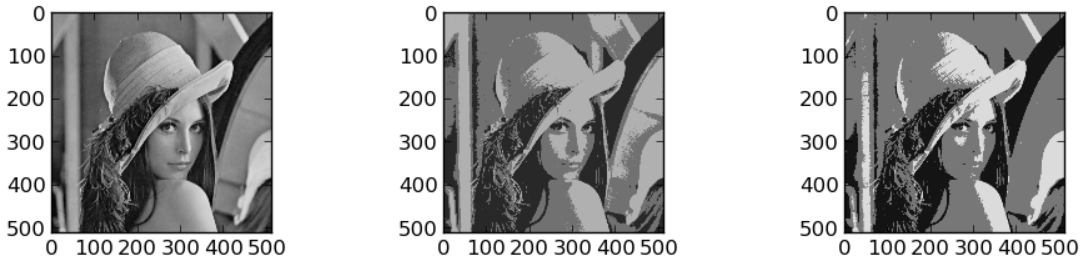
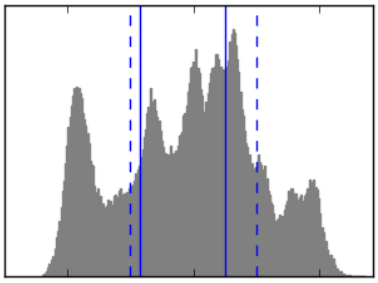


(a) Original image (b) Binned with kmeans opt. (c) Equally spaced bins

Figure 1: colors groups by kmeans, 3 bins

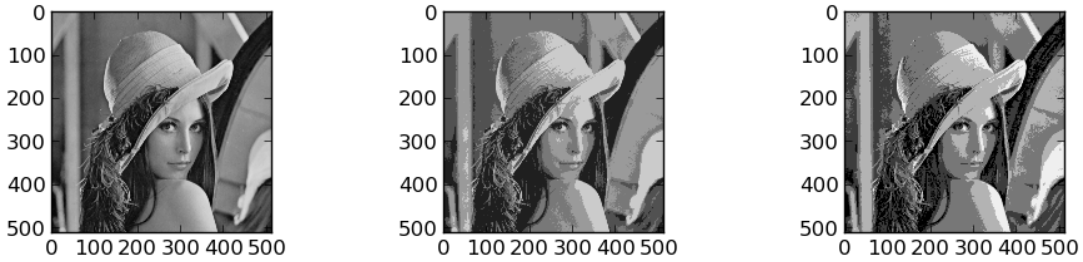


(d) histogram

Quick summary of learning K-means clustering (2.2.4.1.1. K-means clustering in sklearn tutorial).

- KMeans doc can be found here http://scikit-learn.org/dev/modules/generated/sklearn.cluster.KMeans.html.
- By default it uses the k-means++ algorithm for seeding. This makes sense to me. I like this stuff because it reminds me a lot of stuff I was doing in grad school around 2000, and it looks like a lot of this machine learning stuff was still being developed back then (i.e. it's newish)
- right now, I can't figure out what .squeeze() method does...oh, now i see it's a numpy array thing to get rid of dimensions of size 1: http://docs.scipy.org/doc/numpy/reference/generated/numpy.squeeze.html

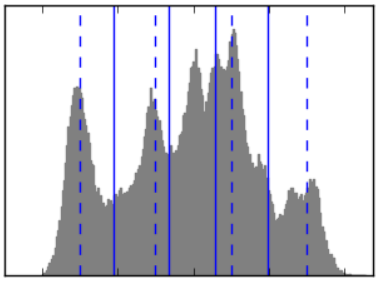
- 3 bins: Figure 1.
- 5 bins: Figure 2



(a) Original image

(b) Binned with kmeans opt.

(c) Equally spaced bins



(d) histogram

Figure 2: colors groups by kmeans, 5 bins