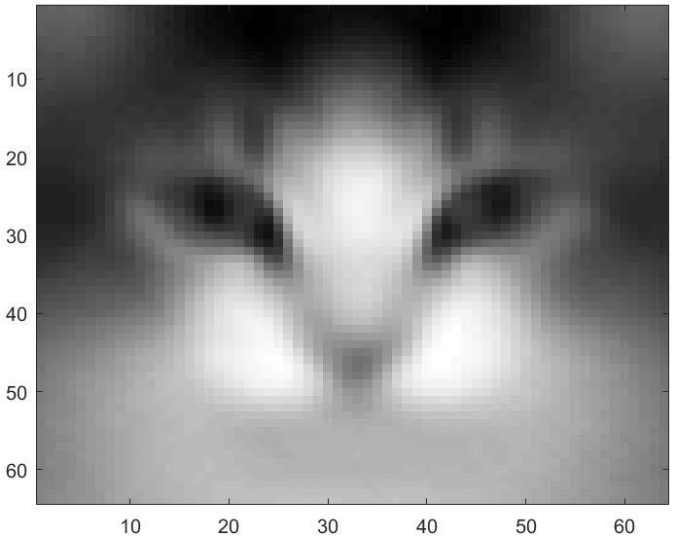
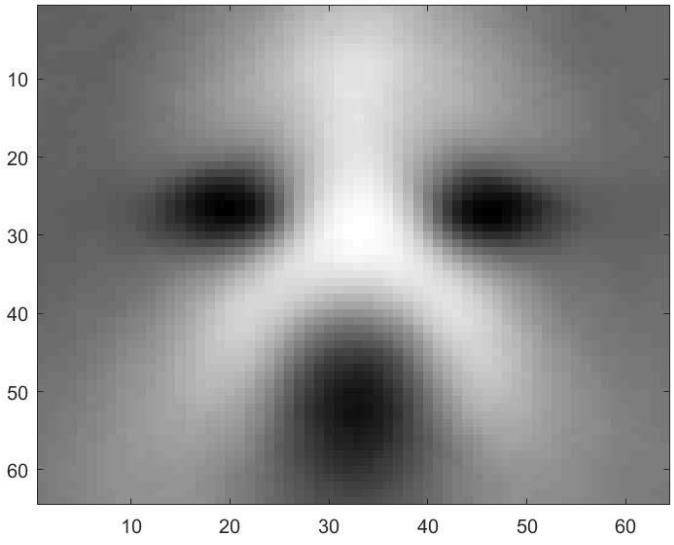
CP 3.1

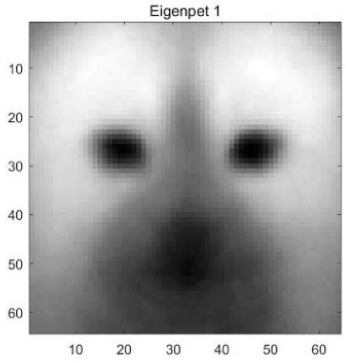
< Average Cat >

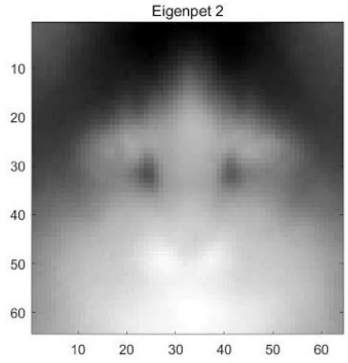


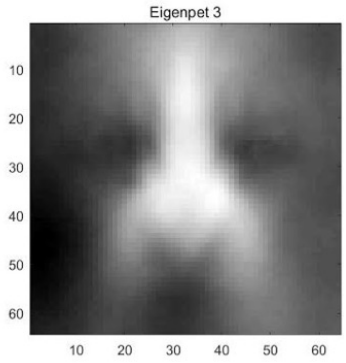
< Average Dog >

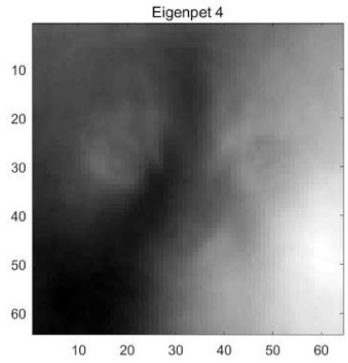


CP.3.6









Eigenpet 1 → (a) cat

Eigenpet 3 → (b) dog

Eigenpet 2 → (c) eyes

Eigenpet 4 → (d) pure noise

CP.3.7

	K=50	k=100	K=200	K=400
Linear discriminant training	7.17%	5.9%	4.4%	3.1%
Linear discriminat test	7.3%	8.8%	8.3%	9.8%
perceptron training	8%	5.6%	4.4%	3.4%
Perceptron test	8.5%	8.5%	9%	9.5%

K=400 resulted in the best minimum rates for training sets.

Training error rates tend to decrease as k increases from 50 to 400.

However, test error rates tend to stay similar as k increases from 50 to 400.

∴ Traing error rates are affected by # of data.
But test error rates are not affected by # of data.