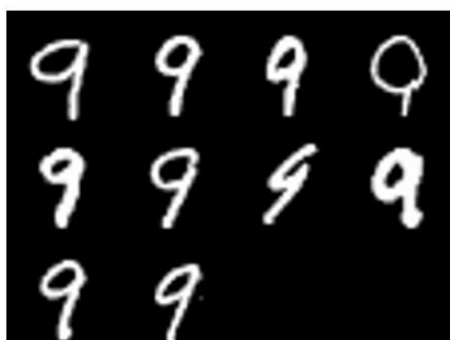
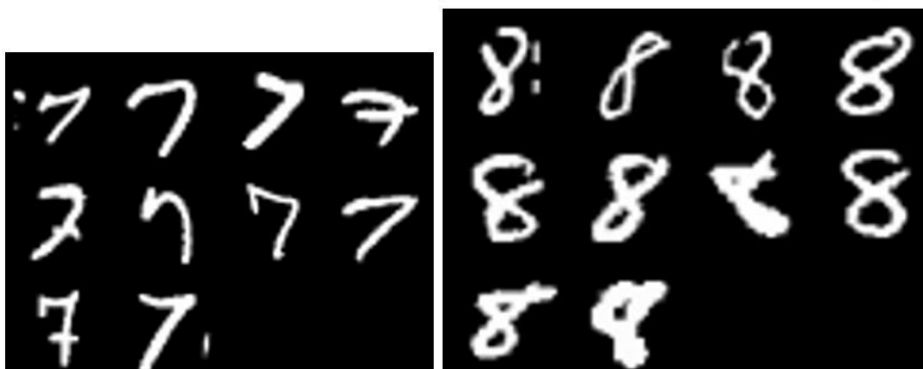
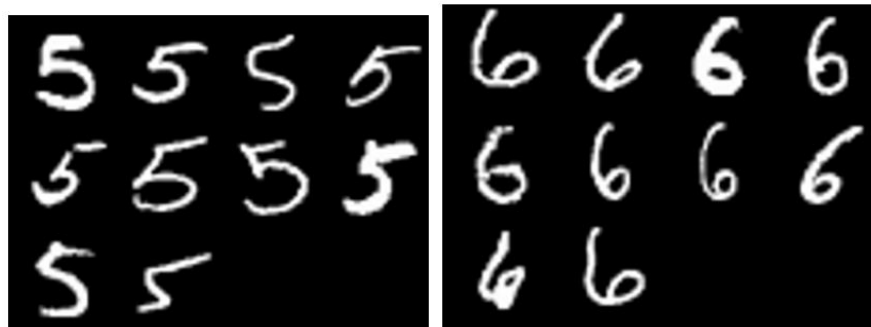
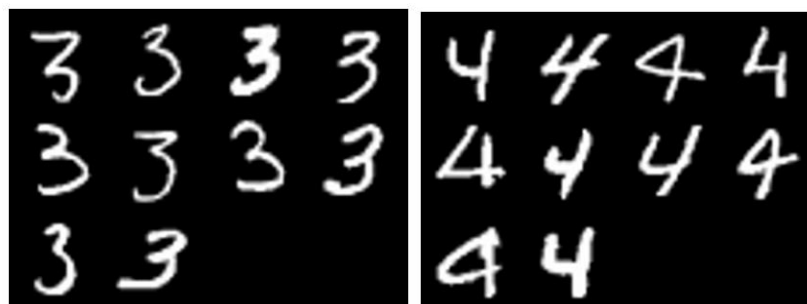
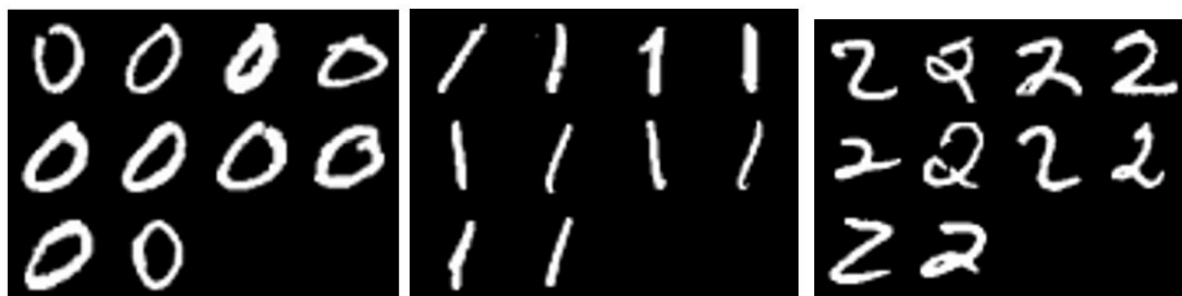
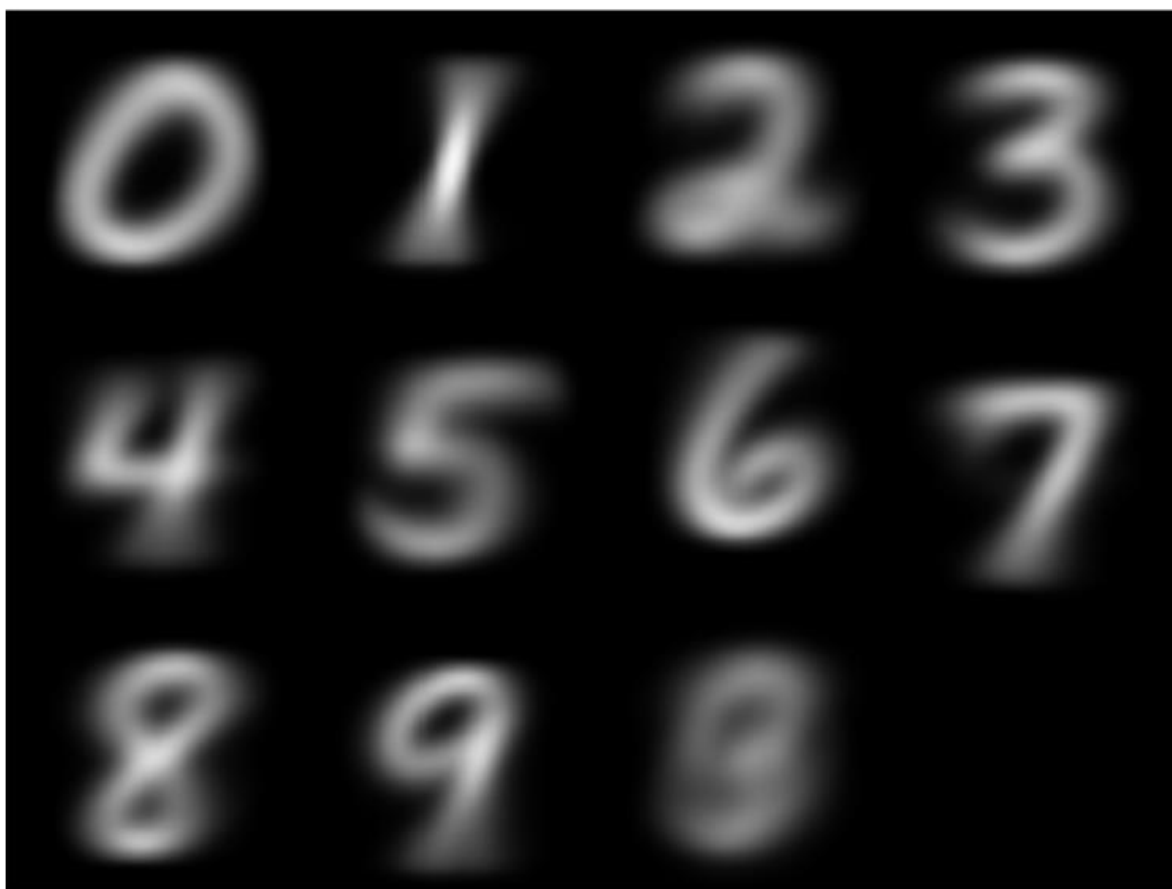


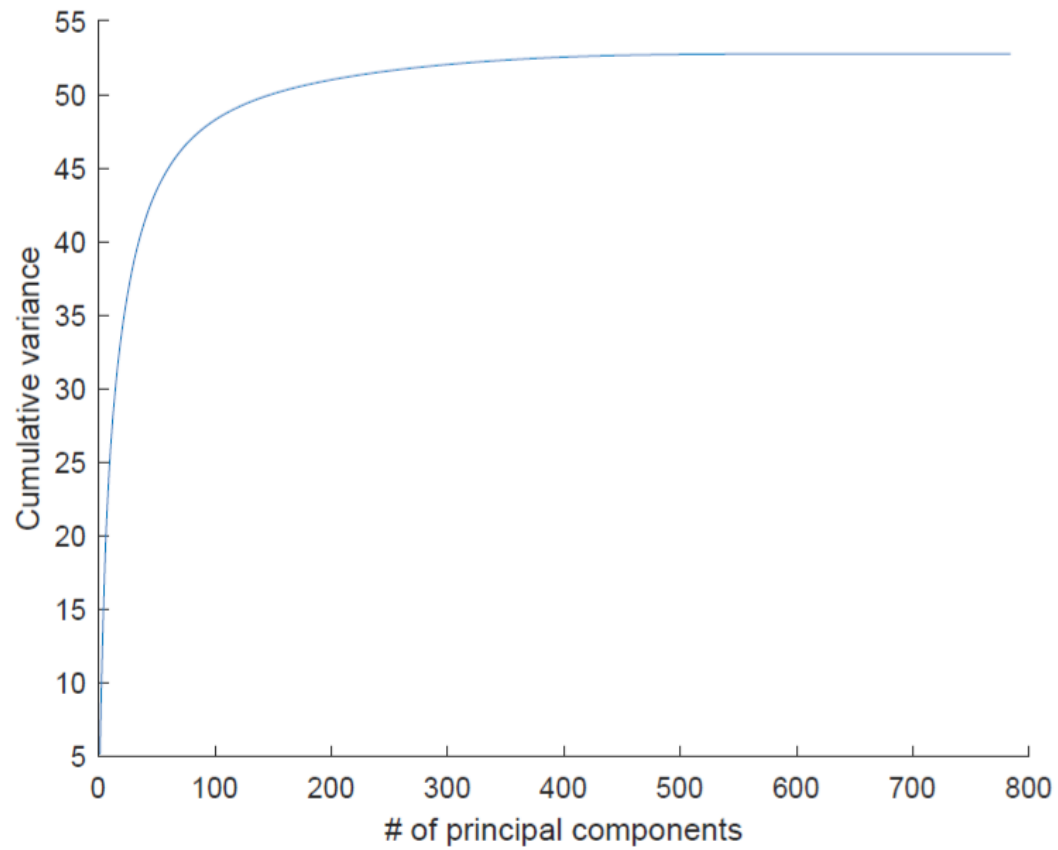
Task1.1



Task1.2



Task 1.3

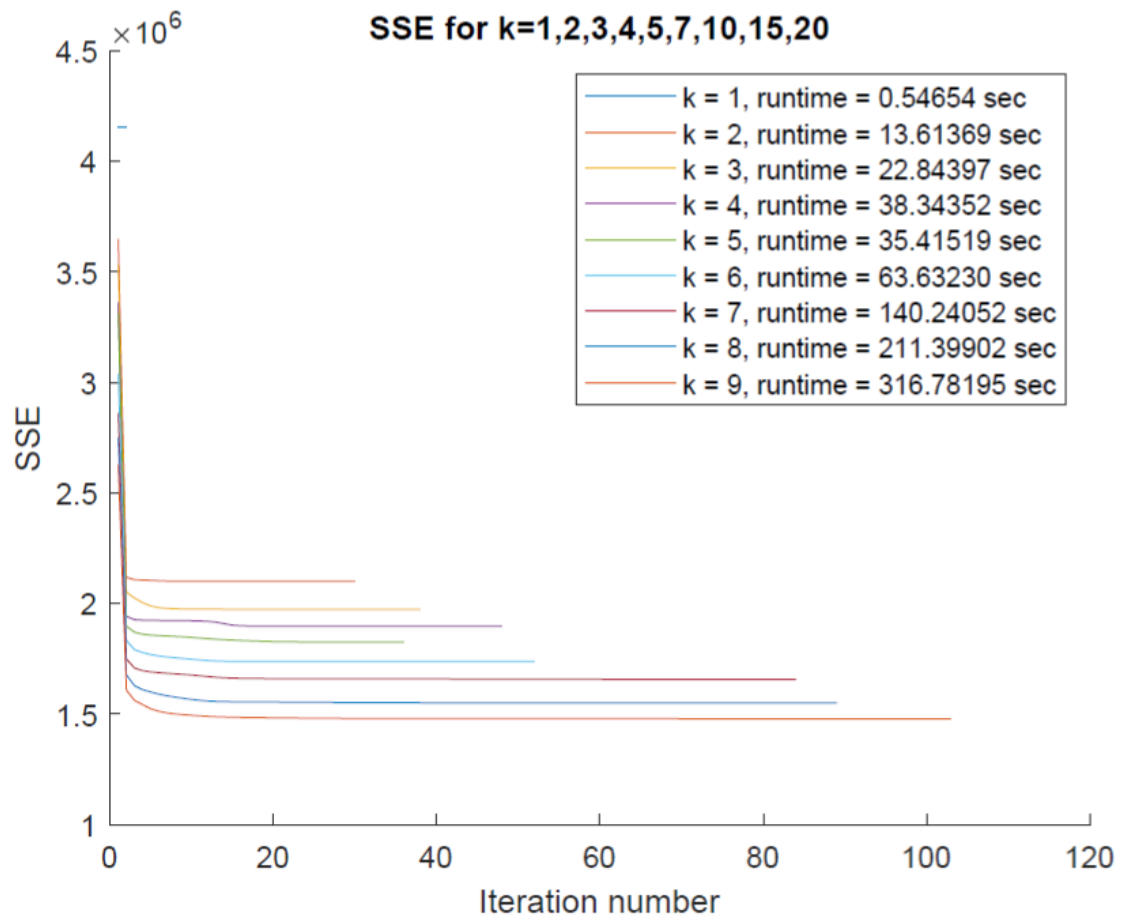


Of total Variance	70%	80%	90%	95%
Min. # PCA dimensions	36(.9377)	42(.2146)	47(.4914)	50(.1298)

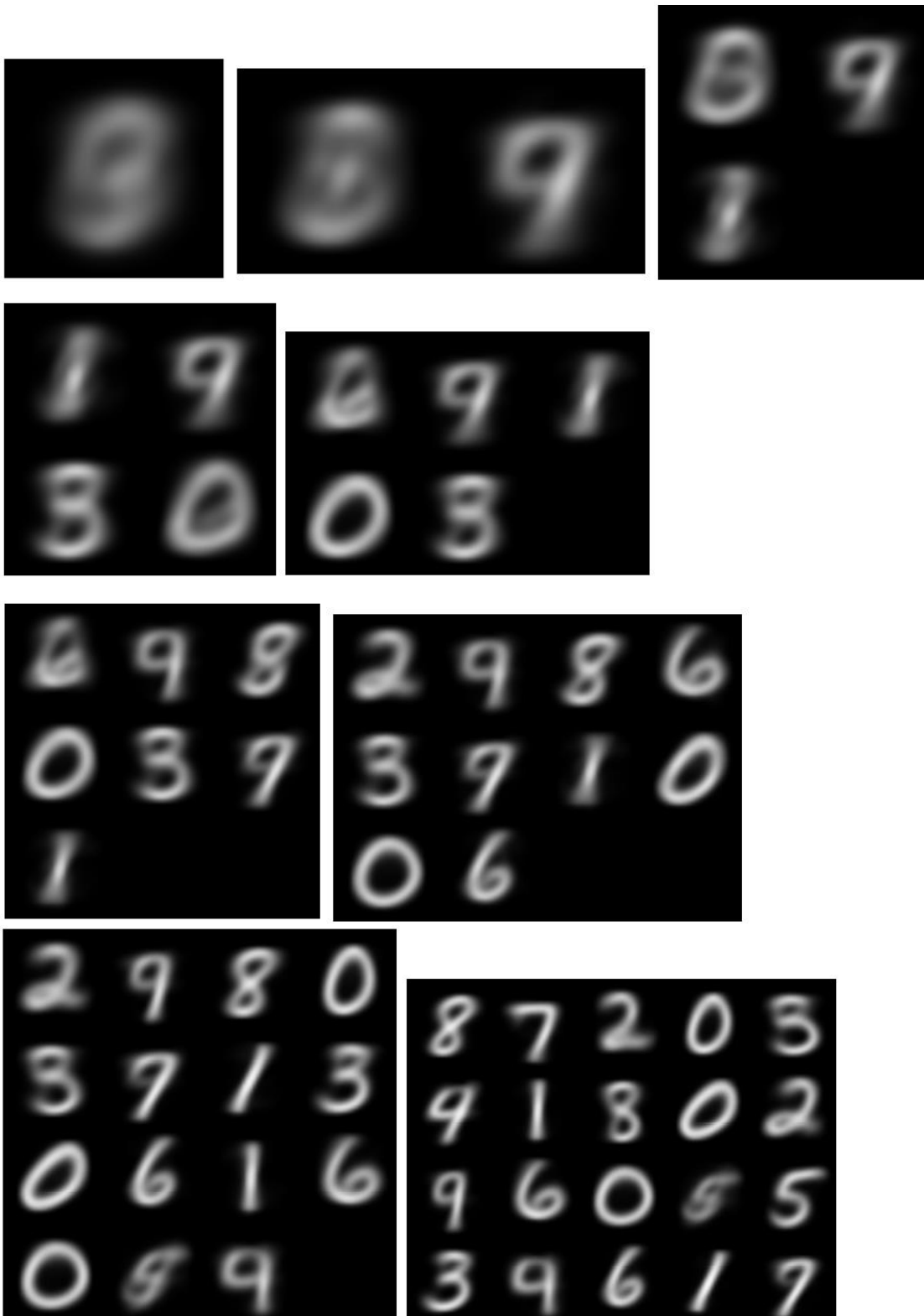
Task 1.4



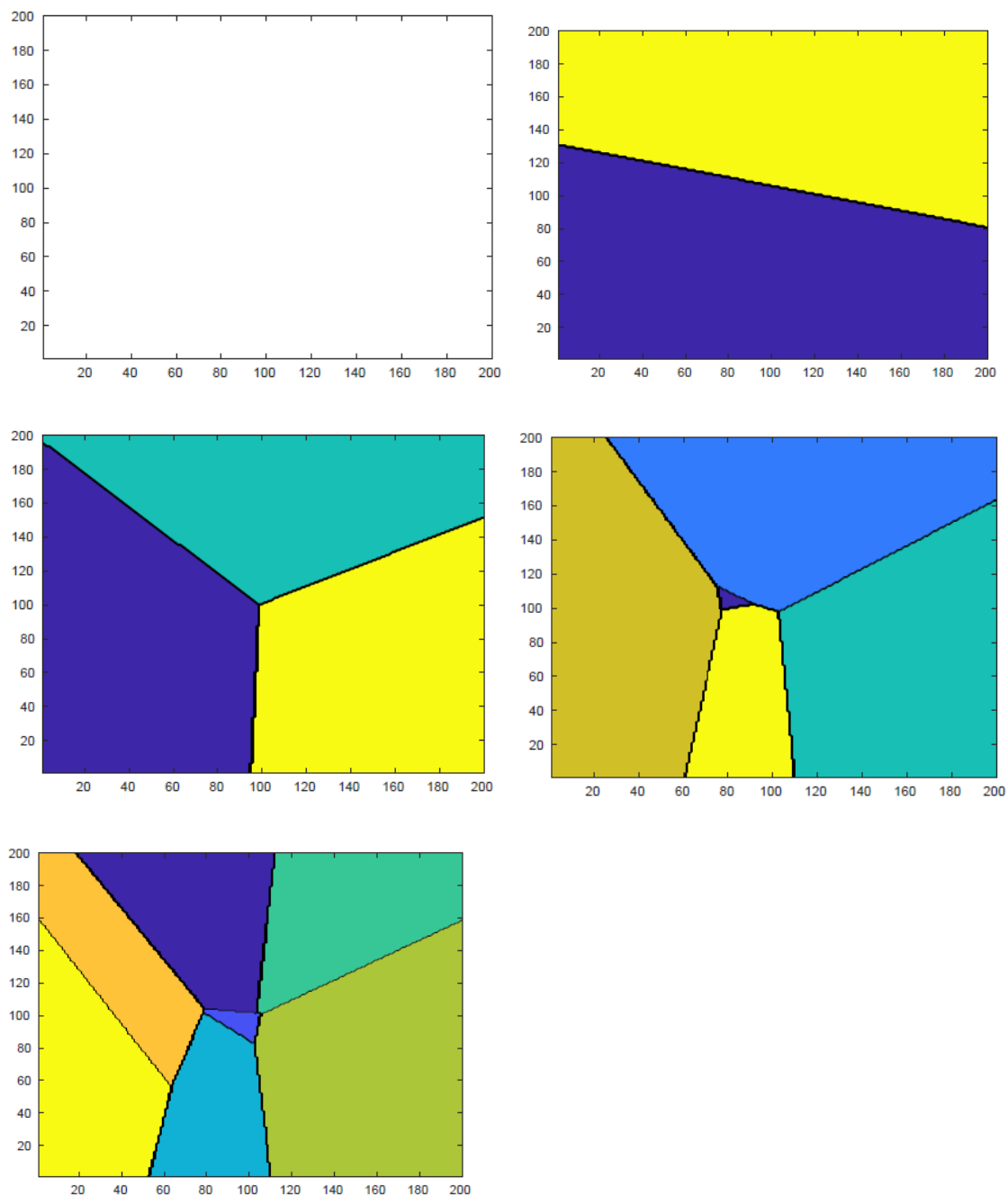
Task 1.5



Task 1.6



Task 1.7



Description of algorithm employed:

Each point on Dmap stores the labels of class number (0-9).

To determine each point's class classification, MySqDist was used to calculate the data points with the particular set of cluster centres.

Function 'contourf' groups those labels and color them according to their common classes.