## ANSWERS TO QUESTIONS

- 1) The dataset contains 2007 images, each consisting of 256 pixels ( X is a 256 x 2007 matrix).
- 2) The accuracy converges for digit 3.
- 5)It seems that the perceptron Algorithm yields slightly better results, so I would stick to this algorithm.
- 6)No. Testing only on the same dataset leads to so called "overfitting" This means we fitted a model which suits the training data well but we not know if our model generalizes well, i.e. performs well on unseen data.

Often times, when an algorithm is trained and tested on the same data set, it yields good results on that data sets but not on unseen data.

#Figure1



