

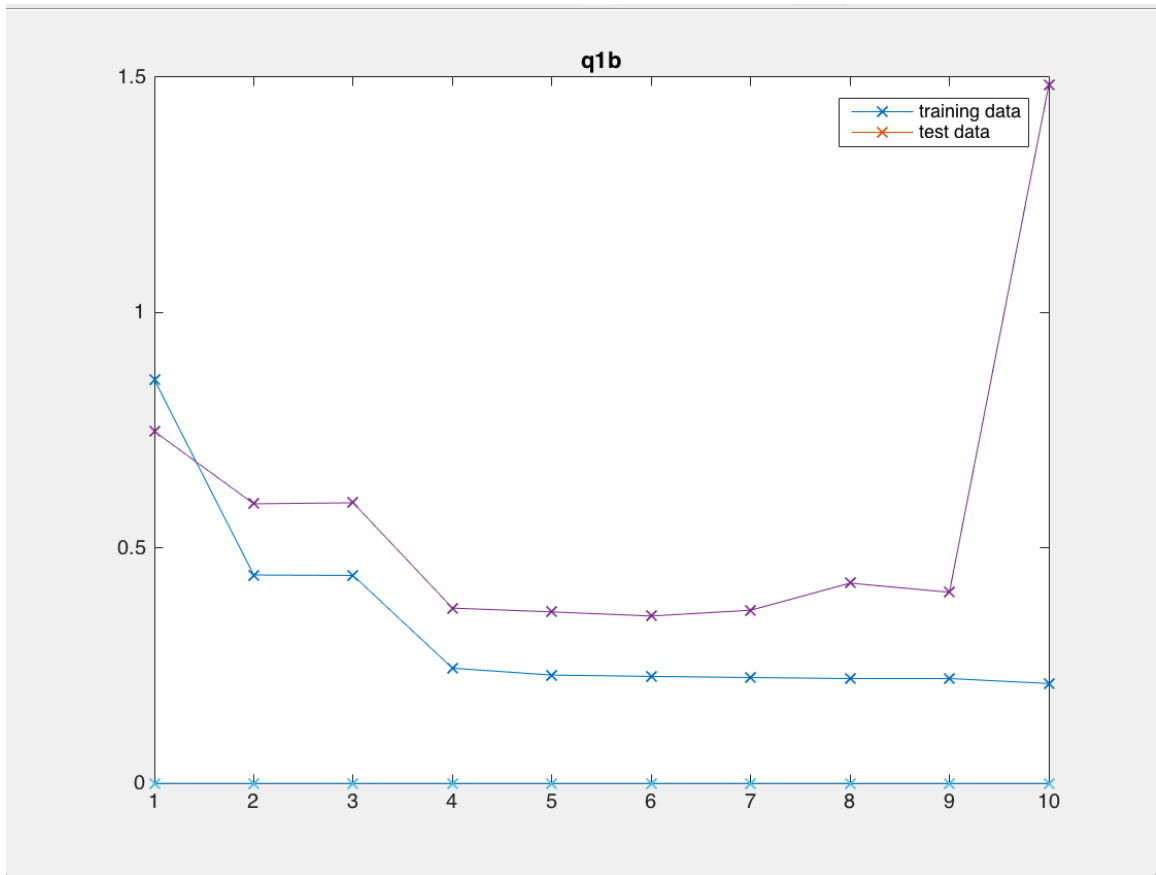
EECS 445 HW1

Deepak Kumar – kumarde

Kevin Pitt – kpitt

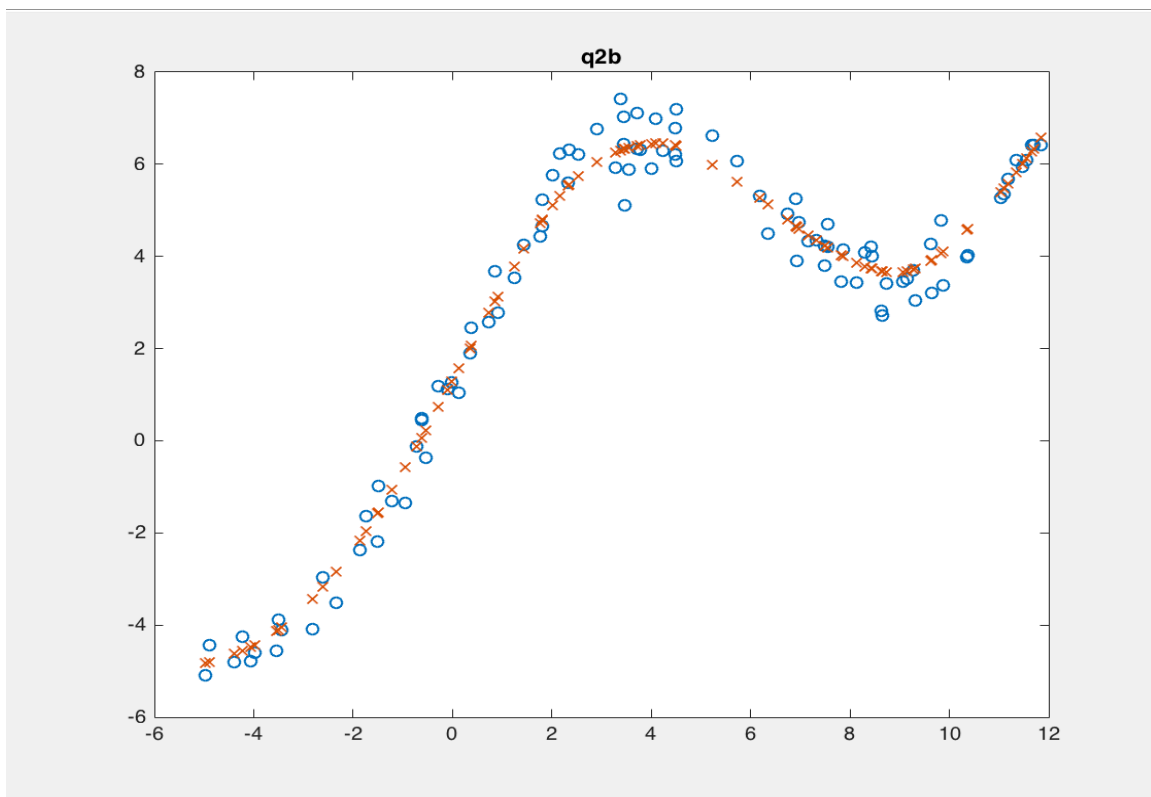
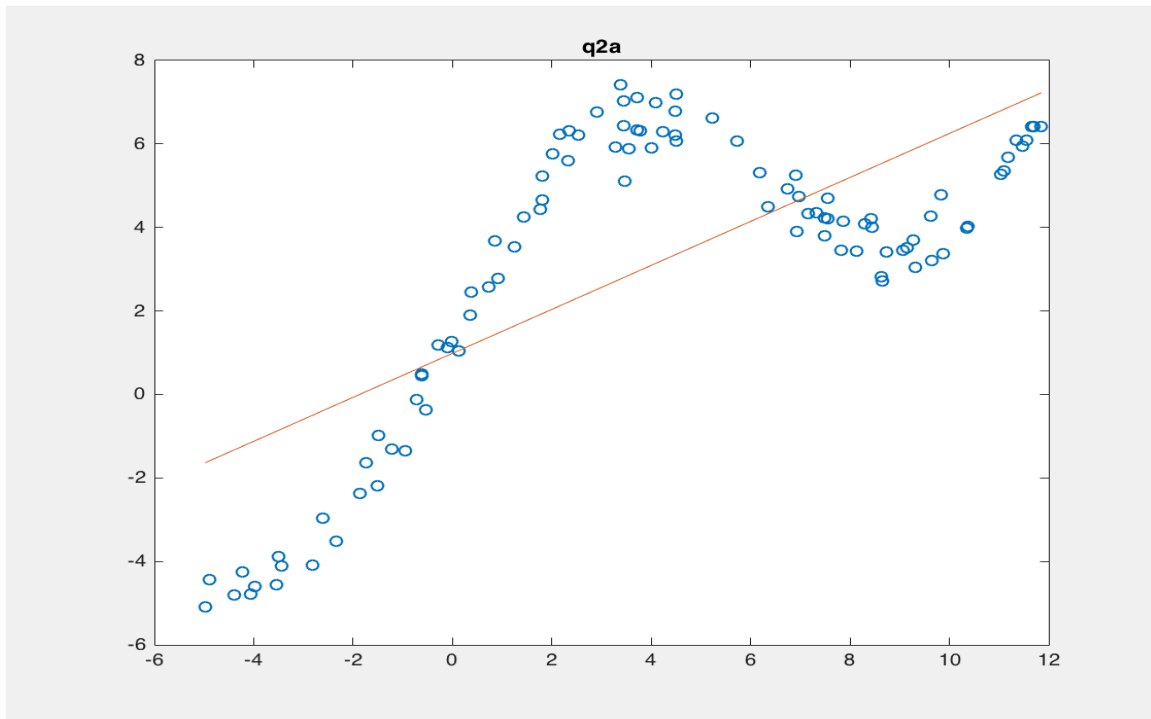
Stephen Kovacinski - kova

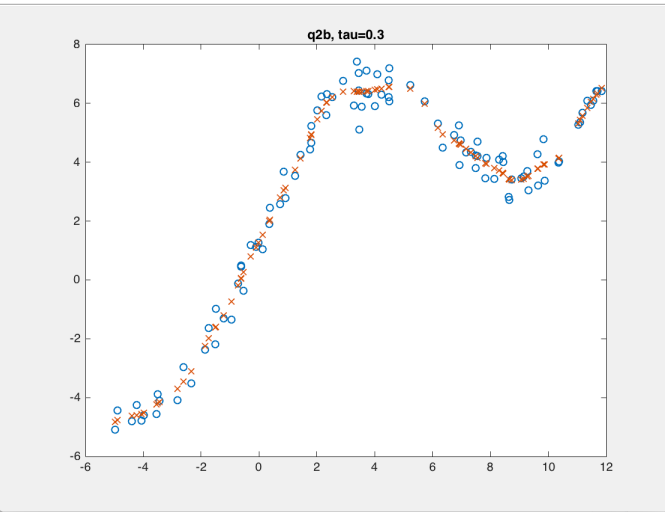
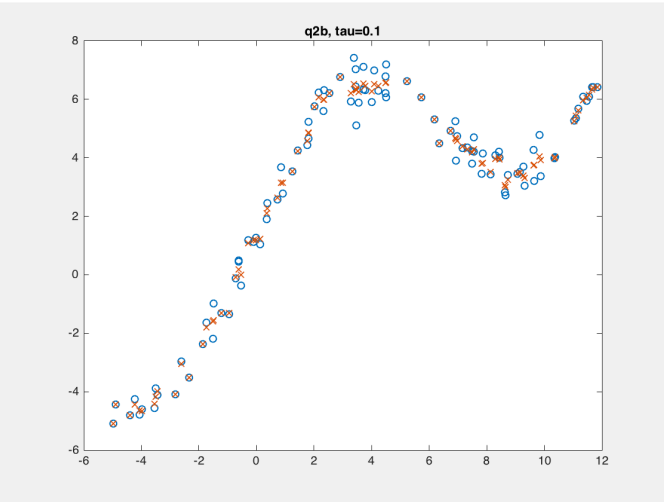
1(b)

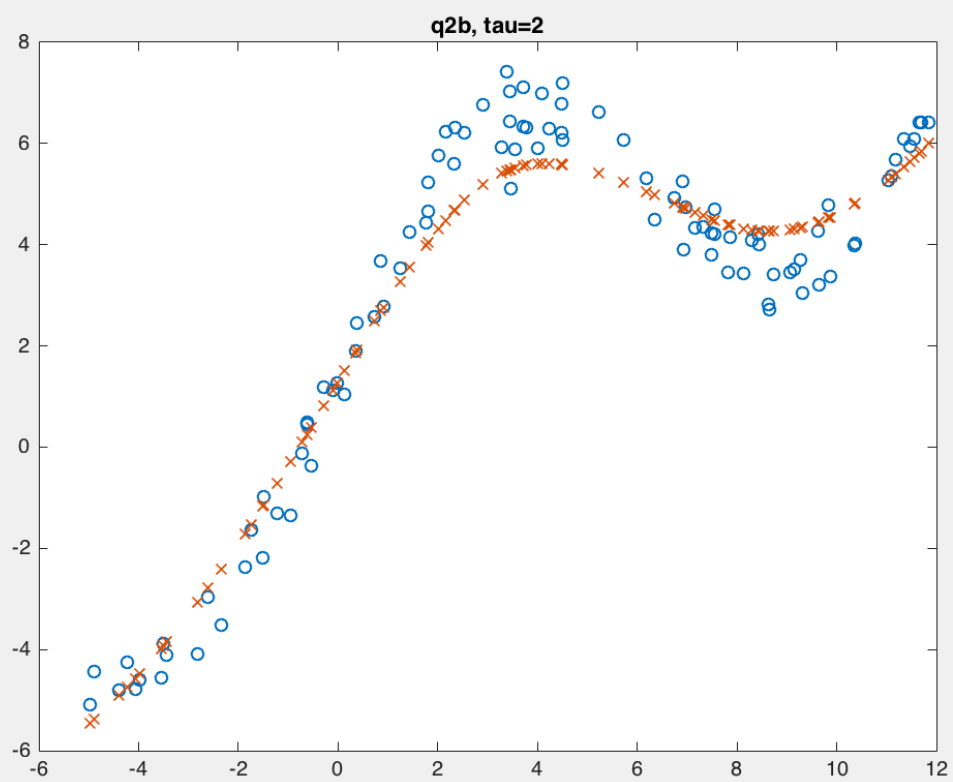


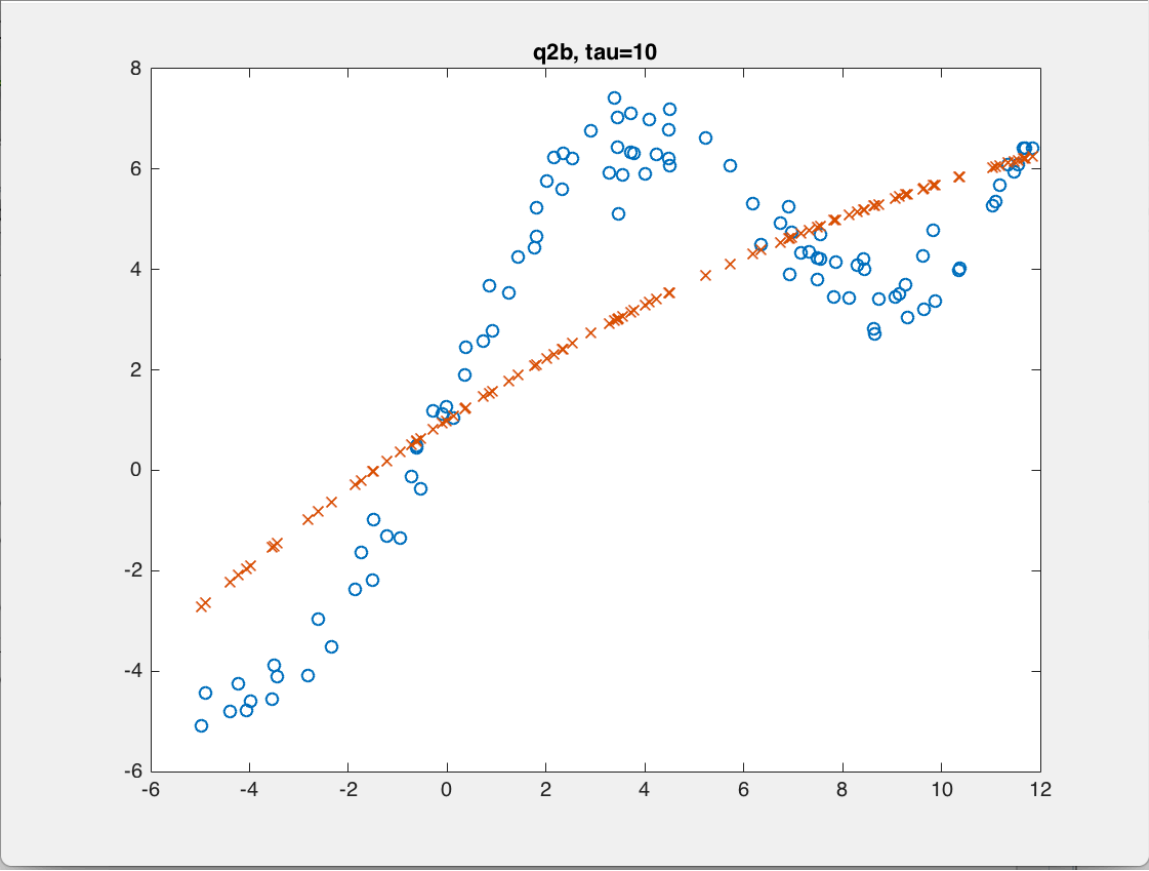
2(d) i., ii.

(i). $w = [0.9844, 0.5267]$



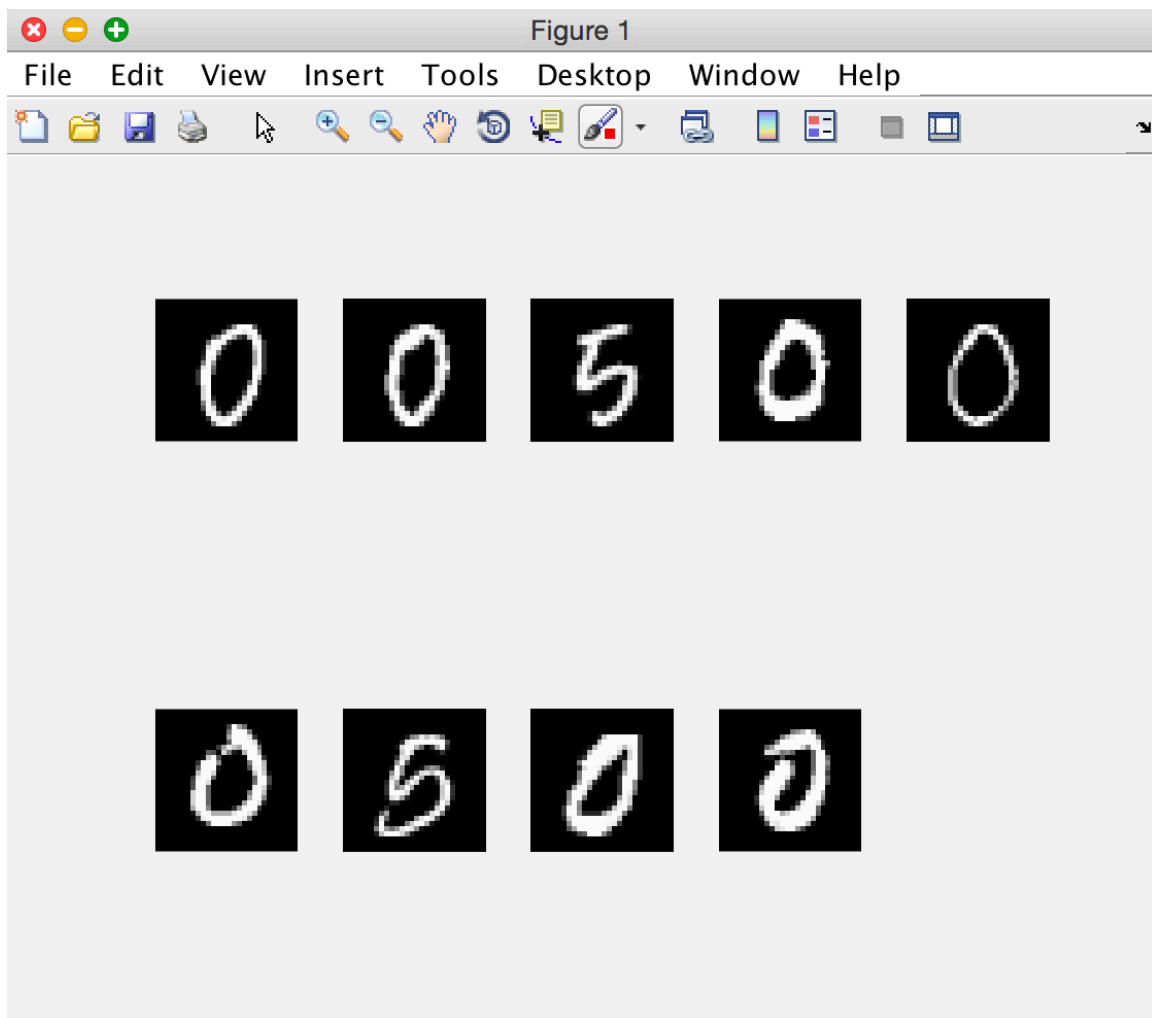




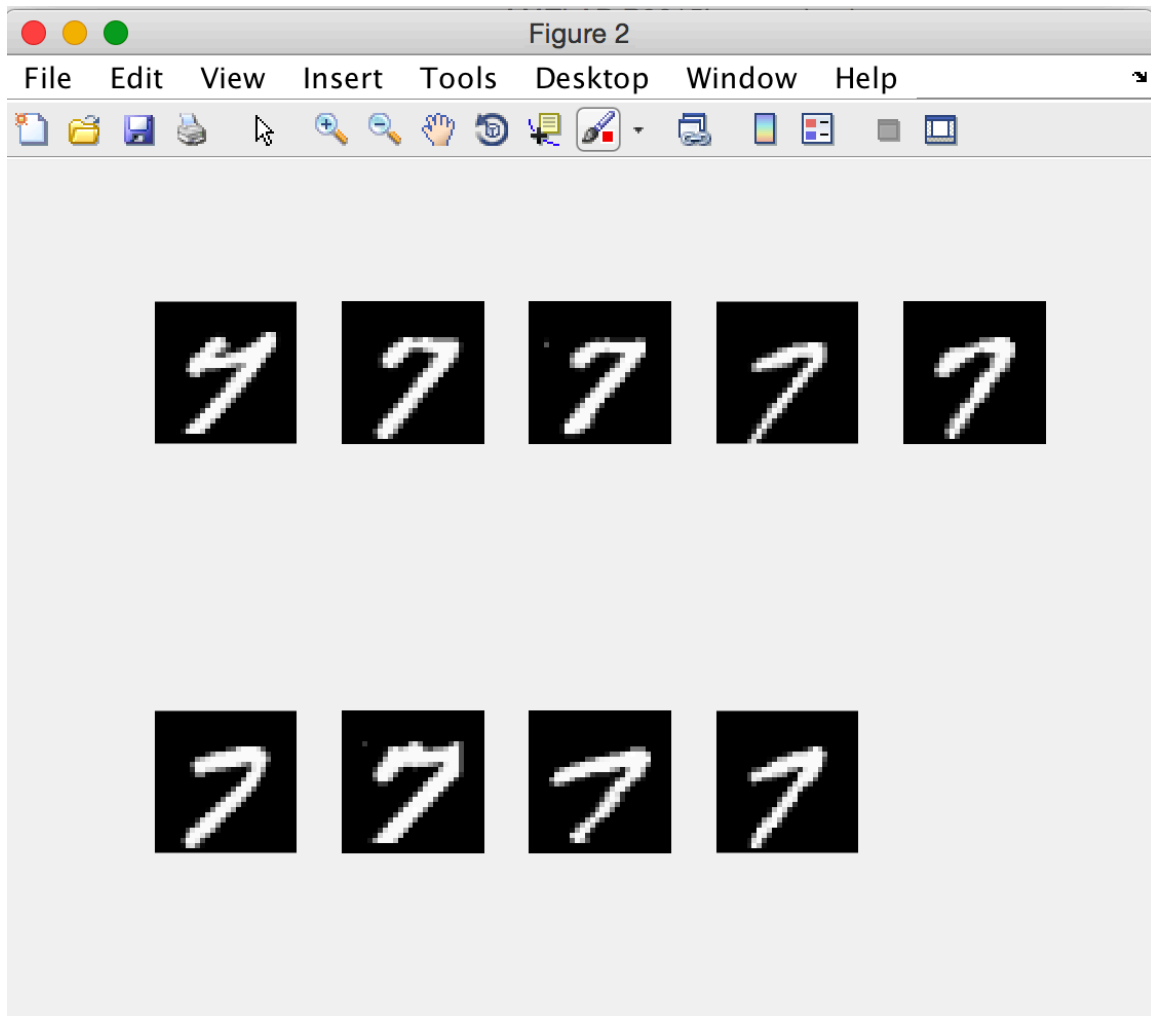


3(a).

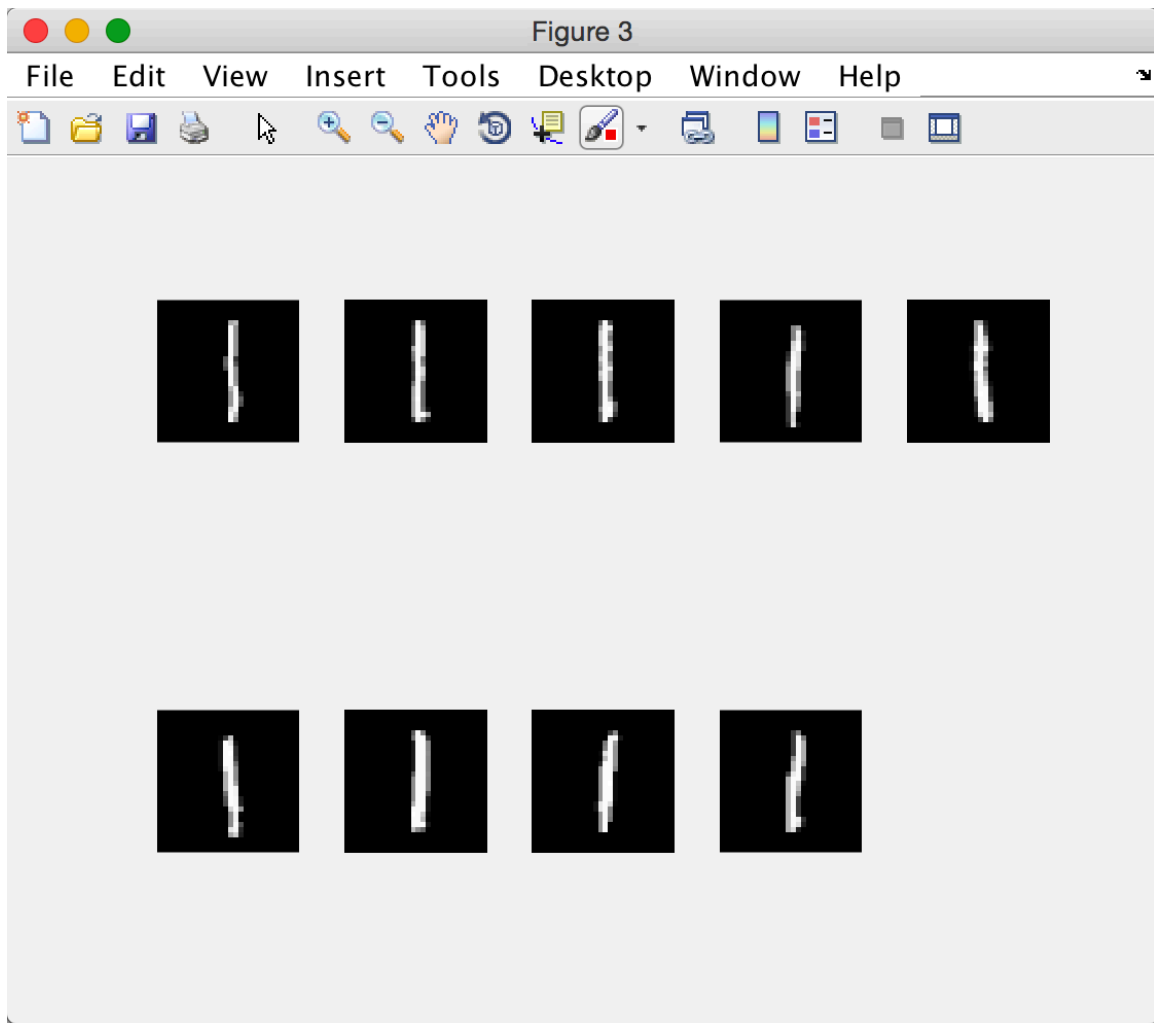
```
nearest index 1 for test point 1 is 953
nearest index 2 for test point 1 is 691
nearest index 3 for test point 1 is 321
nearest index 4 for test point 1 is 211
nearest index 5 for test point 1 is 193
nearest index 6 for test point 1 is 837
nearest index 7 for test point 1 is 82
nearest index 8 for test point 1 is 543
class label for test point 1 is 0
```



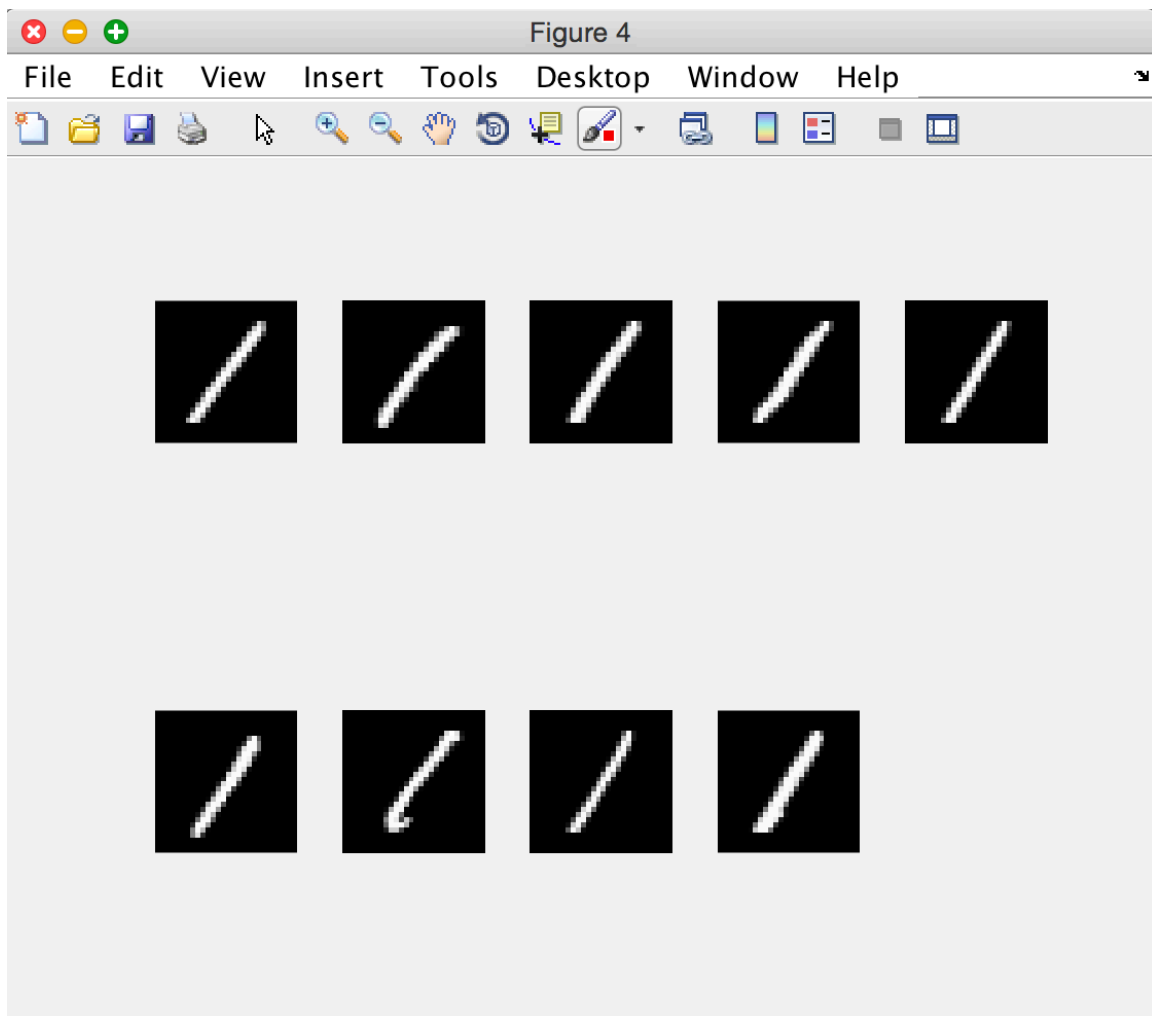
```
nearest index 1 for test point 2 is 724
nearest index 2 for test point 2 is 754
nearest index 3 for test point 2 is 72
nearest index 4 for test point 2 is 16
nearest index 5 for test point 2 is 912
nearest index 6 for test point 2 is 982
nearest index 7 for test point 2 is 194
nearest index 8 for test point 2 is 80
class label for test point 2 is 7
```

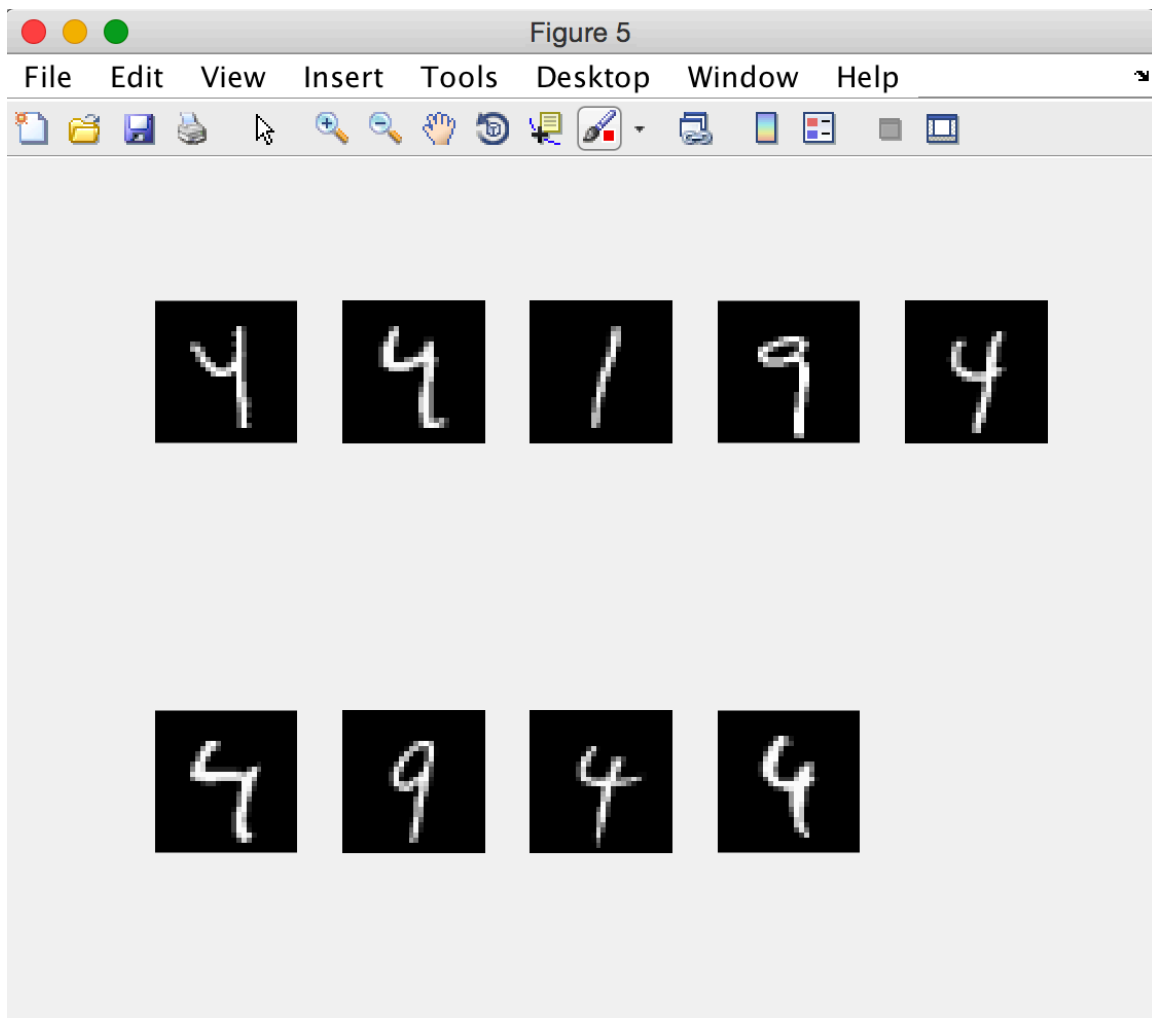
```
nearest index 1 for test point 3 is 485
nearest index 2 for test point 3 is 399
nearest index 3 for test point 3 is 455
nearest index 4 for test point 3 is 639
nearest index 5 for test point 3 is 9
nearest index 6 for test point 3 is 679
nearest index 7 for test point 3 is 113
nearest index 8 for test point 3 is 311
class label for test point 3 is 1
```



```
nearest index 1 for test point 4 is 588
nearest index 2 for test point 4 is 952
nearest index 3 for test point 4 is 594
nearest index 4 for test point 4 is 962
nearest index 5 for test point 4 is 476
nearest index 6 for test point 4 is 638
nearest index 7 for test point 4 is 994
nearest index 8 for test point 4 is 920
class label for test point 4 is 1
```



```
nearest index 1 for test point 5 is 577
nearest index 2 for test point 5 is 605
nearest index 3 for test point 5 is 305
nearest index 4 for test point 5 is 27
nearest index 5 for test point 5 is 719
nearest index 6 for test point 5 is 901
nearest index 7 for test point 5 is 413
nearest index 8 for test point 5 is 355
class label for test point 5 is 4
```



3(b)

Classification accuracy is 85.700000

4(b)

