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Course Name: Machine Learning
Course Number: 6363

Output for degree 1 Pendigits dataset

```
>> logistic_regression('pendigits_training.txt',1,'pendigits_test.txt')
```

w0=8.2464

w1=-0.0695

w2=-0.0479

w3=0.0980

w4=-0.1273

w5=-0.0686

w6=0.0513

w7=0.0352

w8=0.1101

w9=0.0461

w10=-0.1461

w11=-0.0281

w12=0.0041

w13=-0.0559

w14=0.0435

w15=0.0074

w16=-0.2674

classification accuracy=0.9477

Command Window

```
>> logistic_regression('pendigits_training.txt',1,'pendigits_test.txt')  
w0=8.2464  
w1=-0.0695  
w2=-0.0479  
w3=0.0980  
w4=-0.1273  
w5=-0.0686  
w6=0.0513  
w7=0.0352  
w8=0.1101  
w9=0.0461  
w10=-0.1461  
w11=-0.0281  
w12=0.0041  
w13=-0.0559  
w14=0.0435  
w15=0.0074  
w16=-0.2674  
classification accuracy=0.9477  
fx >>
```

Output for degree 2 Pendigits dataset

```
>> logistic_regression('pendigits_training.txt',2,'pendigits_test.txt')
```

w0=-21.7634

w1=-0.0965

w2=0.0003

w3=-0.0564

w4=-0.0000

w5=0.0982

w6=-0.0001

w7=0.3935

w8=-0.0036

w9=0.0038

w10=-0.0006

w11=0.3081

w12=-0.0019

w13=0.0226

w14=0.0001

w15=0.3777

w16=-0.0021

w17=0.1124

w18=-0.0006

w19=-0.3155

w20=0.0018

w21=0.0267

w22=-0.0006

w23=0.0461

w24=-0.0004

w25=-0.2181

w26=0.0017

w27=0.2985

w28=-0.0093

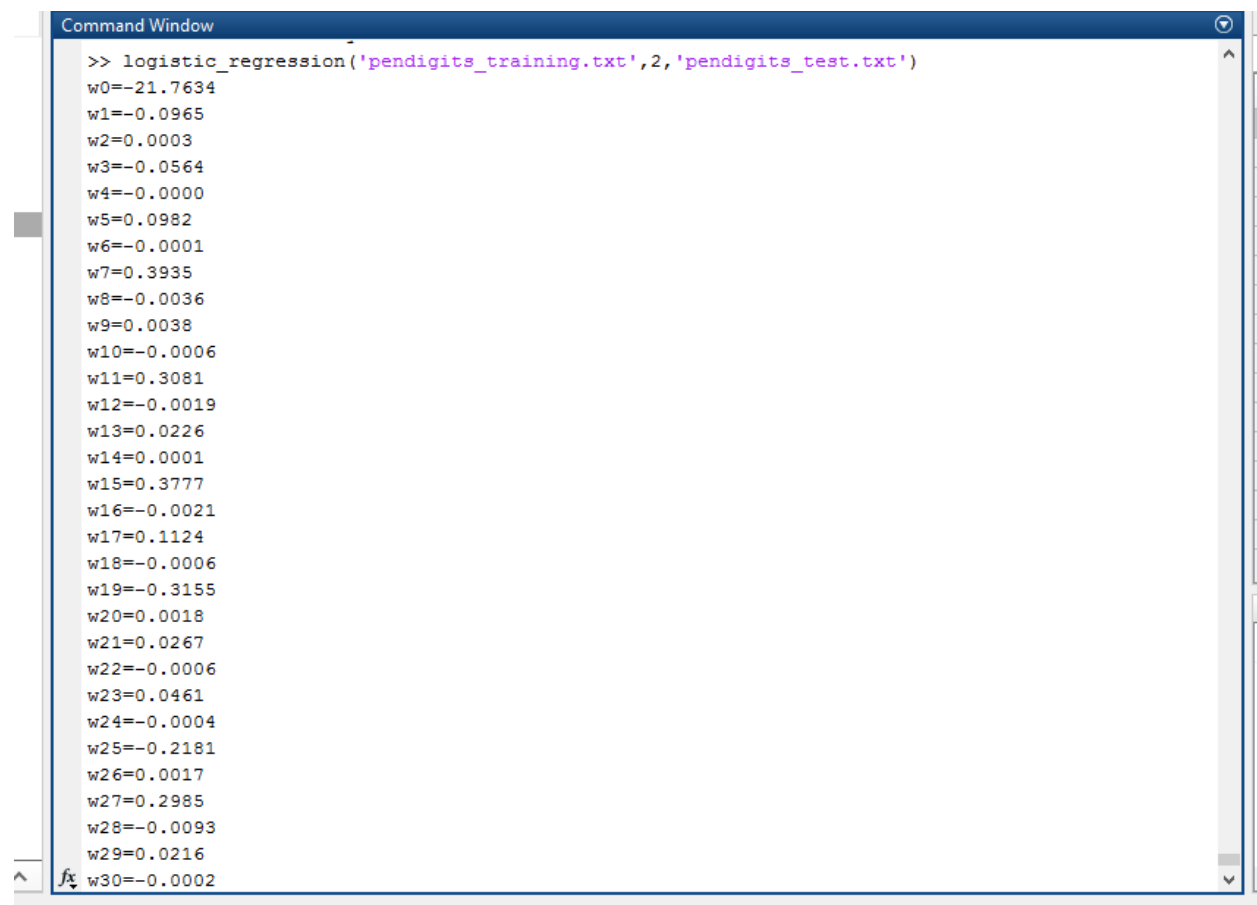
w29=0.0216

w30=-0.0002

w31=0.3050

w32=-0.0292

classification accuracy=0.9700



```
>> logistic_regression('pendigits_training.txt',2,'pendigits_test.txt')
w0=-21.7634
w1=-0.0965
w2=0.0003
w3=-0.0564
w4=-0.0000
w5=0.0982
w6=-0.0001
w7=0.3935
w8=-0.0036
w9=0.0038
w10=-0.0006
w11=0.3081
w12=-0.0019
w13=0.0226
w14=0.0001
w15=0.3777
w16=-0.0021
w17=0.1124
w18=-0.0006
w19=-0.3155
w20=0.0018
w21=0.0267
w22=-0.0006
w23=0.0461
w24=-0.0004
w25=-0.2181
w26=0.0017
w27=0.2985
w28=-0.0093
w29=0.0216
w30=-0.0002
```

Command Window

```
w3=-0.0564
w4=-0.0000
w5=0.0982
w6=-0.0001
w7=0.3935
w8=-0.0036
w9=0.0038
w10=-0.0006
w11=0.3081
w12=-0.0019
w13=0.0226
w14=0.0001
w15=0.3777
w16=-0.0021
w17=0.1124
w18=-0.0006
w19=-0.3155
w20=0.0018
w21=0.0267
w22=-0.0006
w23=0.0461
w24=-0.0004
w25=-0.2181
w26=0.0017
w27=0.2985
w28=-0.0093
w29=0.0216
w30=-0.0002
w31=0.3050
w32=-0.0292
classification accuracy=0.9700
```

f >>