1.C as we can see for d=0 the MSE Mean Squared error is Maximum

→ As the value of d increases from 0 to 4 MSE decreases and from 4 to 5 MSE increased, and from there on it decreased.

2.c The lowest MSE is in the range of 1 to 5 which implies that the locally Weighted lin reg doesn't work good for for the given data-set

2.d. it is same as in lin reg q(1) we are decreasing the data points which really increases the test MSE. but here in locally weighted lin reg there is much increases in terms of ratio as in comparison with Q.1 because as the model is already performing bad decreasing data doesn't change much in loc lin. reg

2.e From the results it Clearly shows that the data has been generated from function is lin reg we say this that function plots along with data in q(1) from d=4 function. almost fits the data.

3(c) in this we leave one out validation process and if we compare it with

prev KNN and Naive bayes then we got better accuracy for this softmax reg there we got slightly better accuracy.

main reason is Cos features are continous

Softmax > KNN.

3d. The acc ↓ decrease as the number of feature ↑ in softmax

in KNN it was opp.