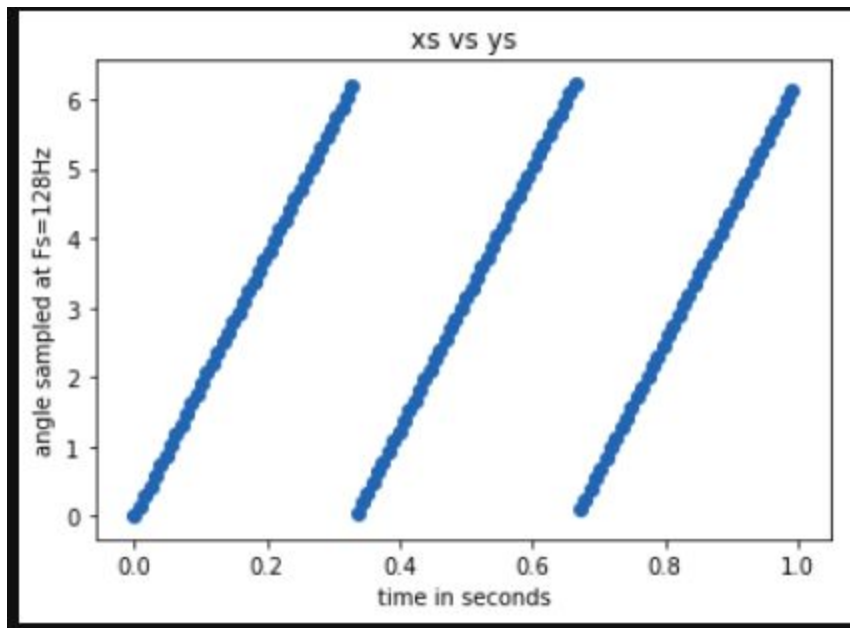
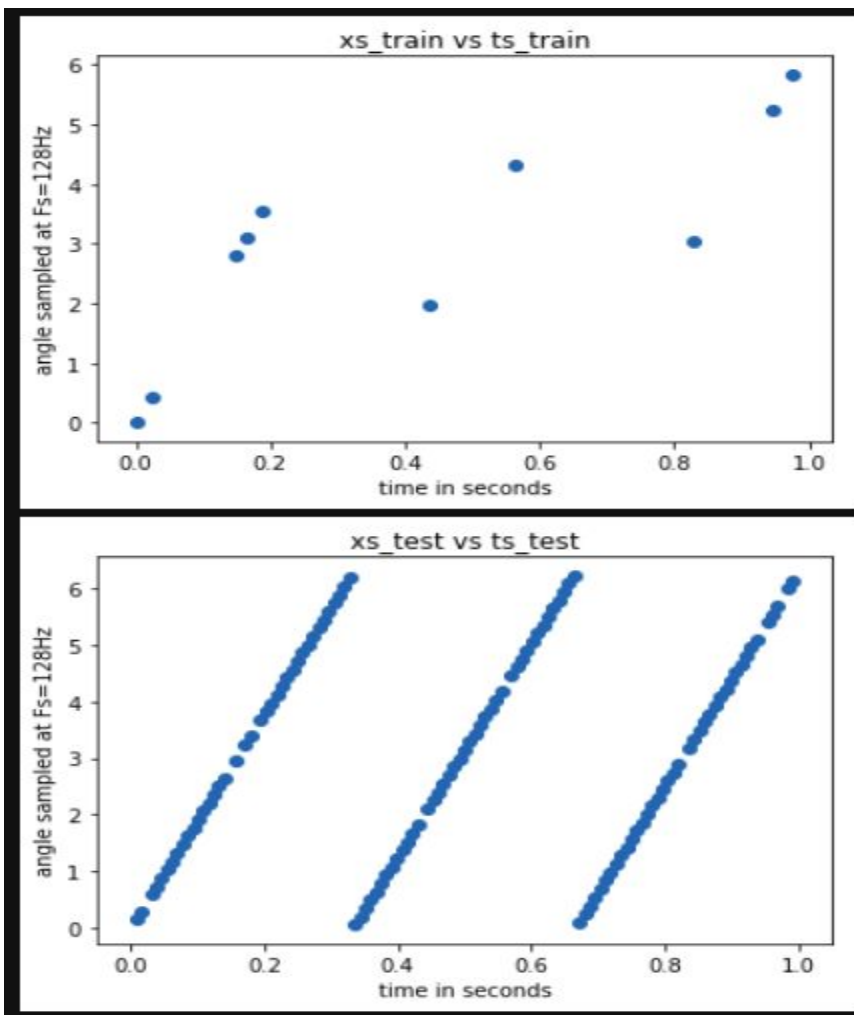


1: The plot of  $\Theta[n]$ :

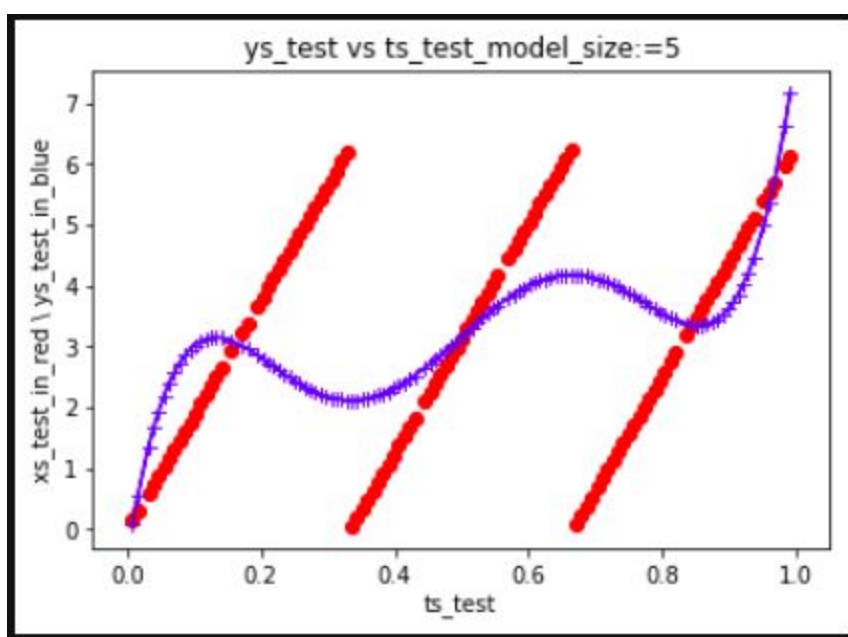
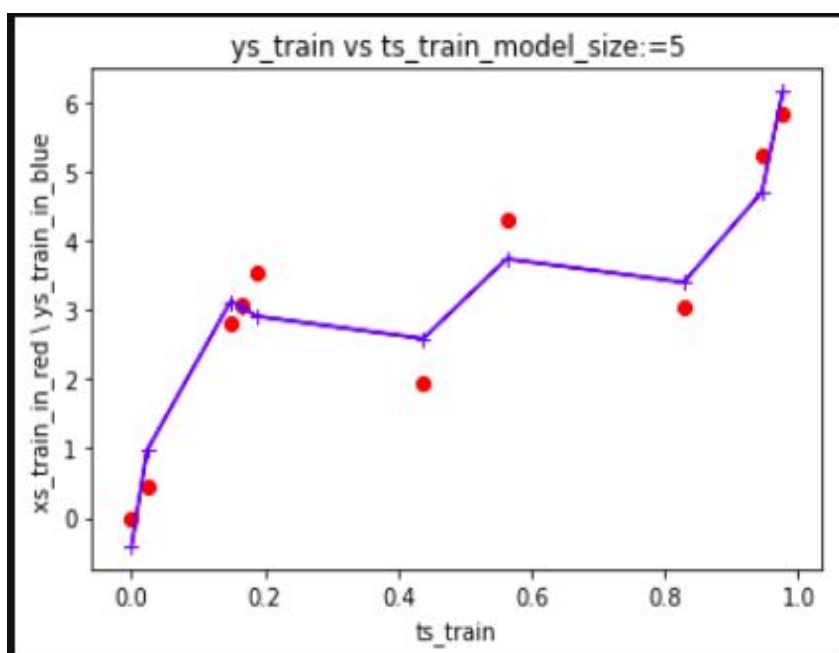


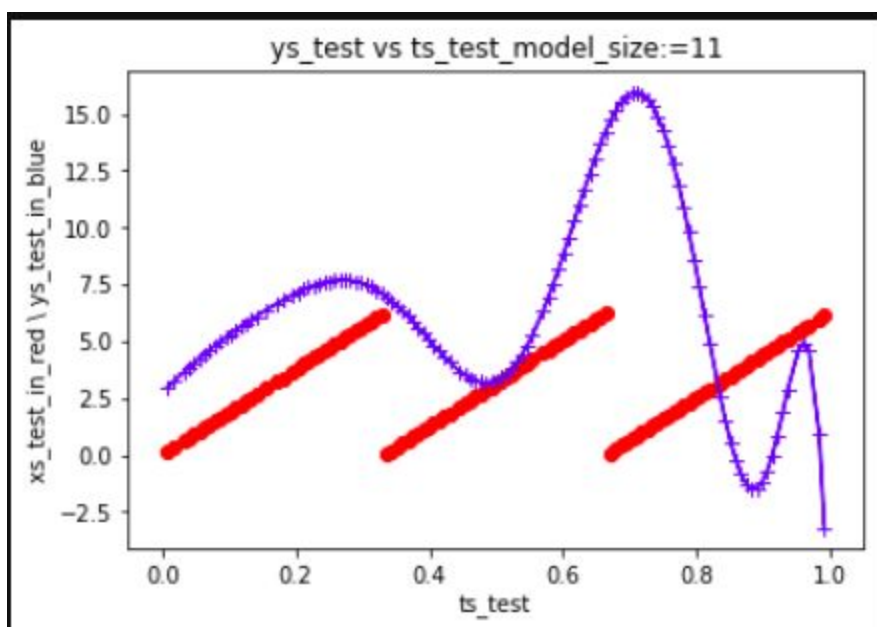
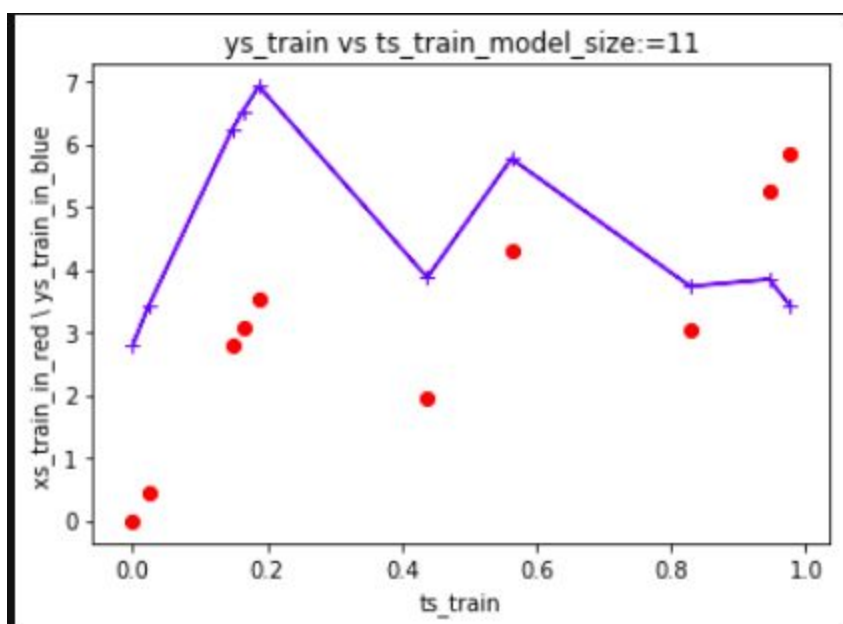
a.

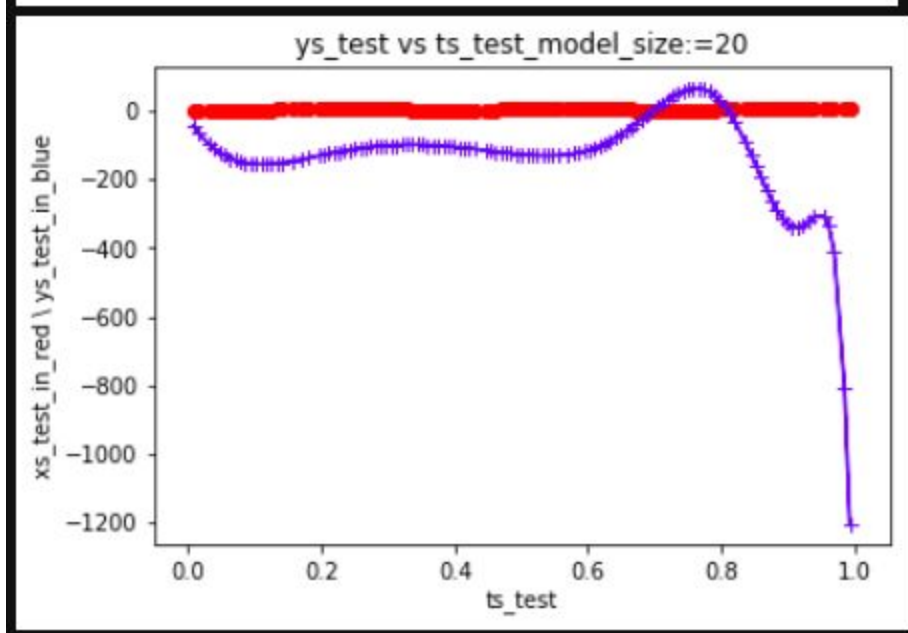
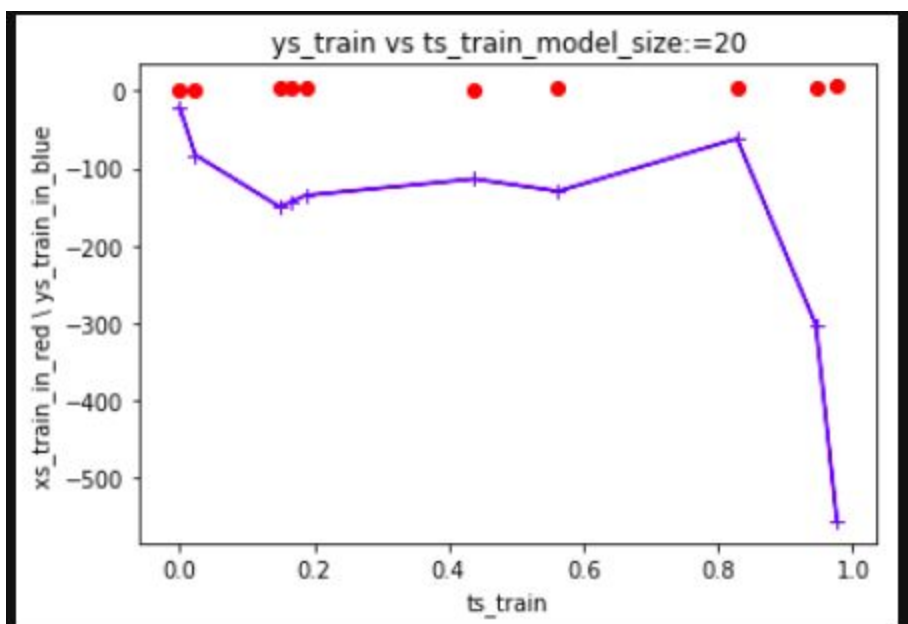
## 2: Train and test split



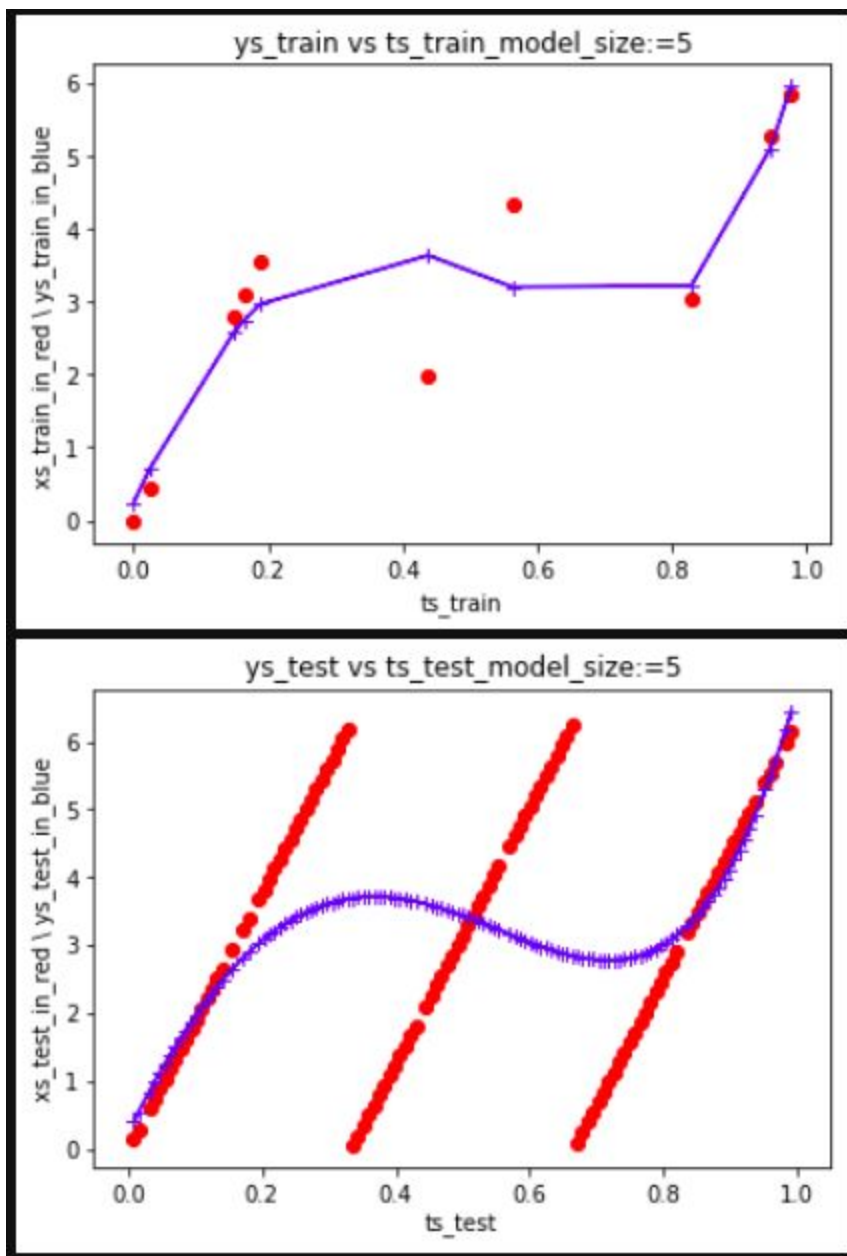
## 3: lest square method:

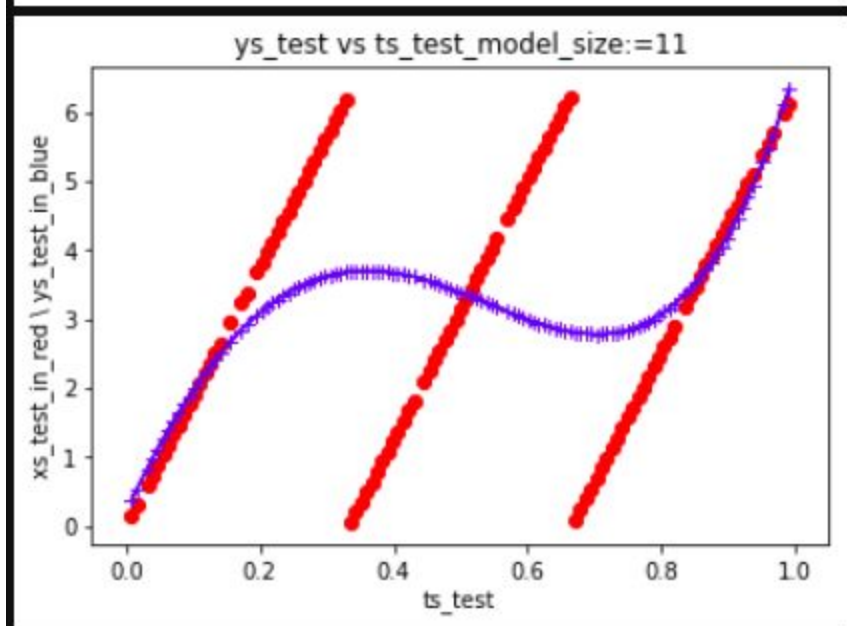
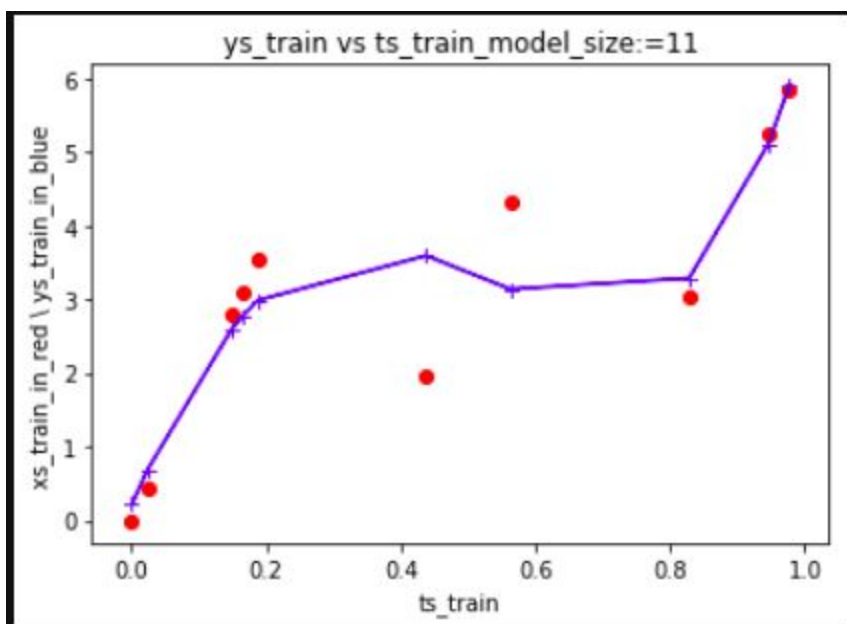


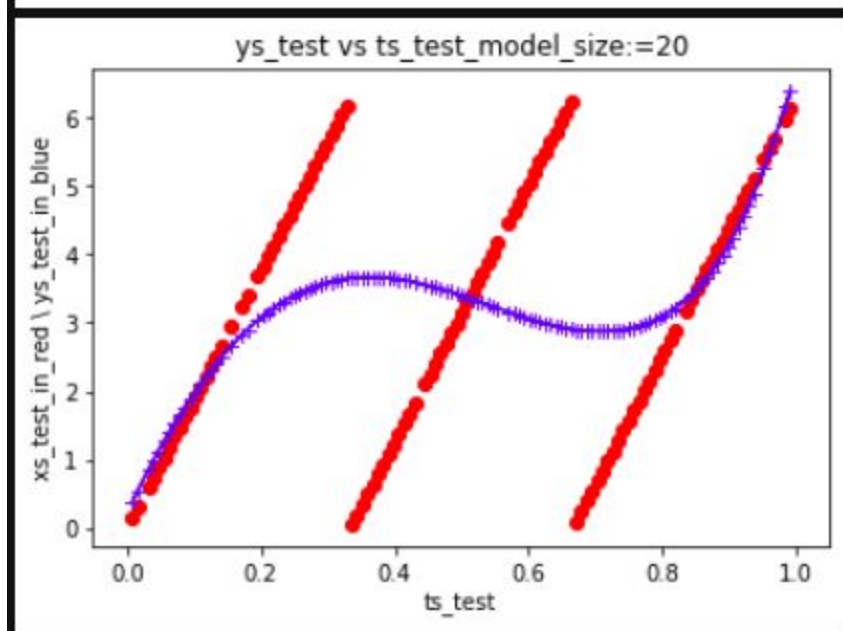
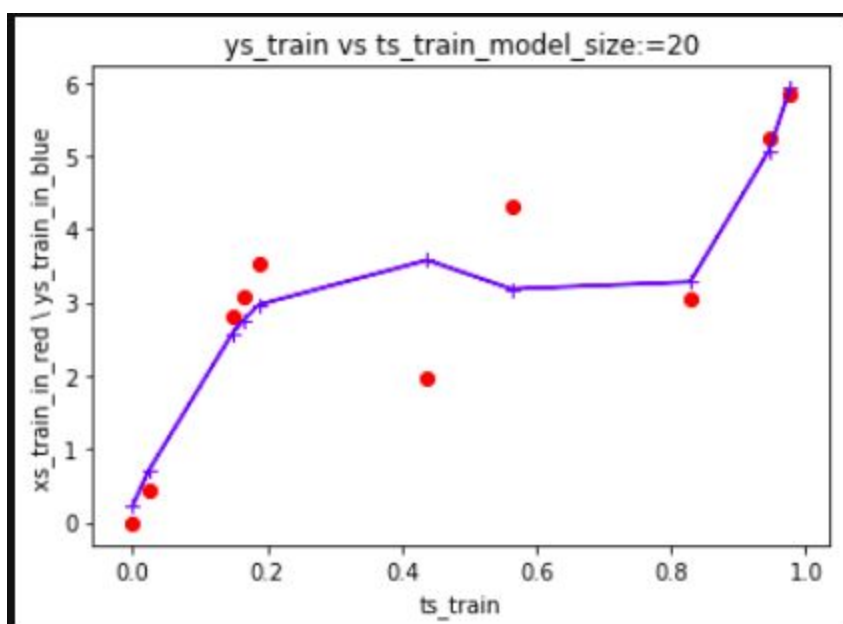




4. Gradient Descent with learning rate=0.01 and iterations=10000:

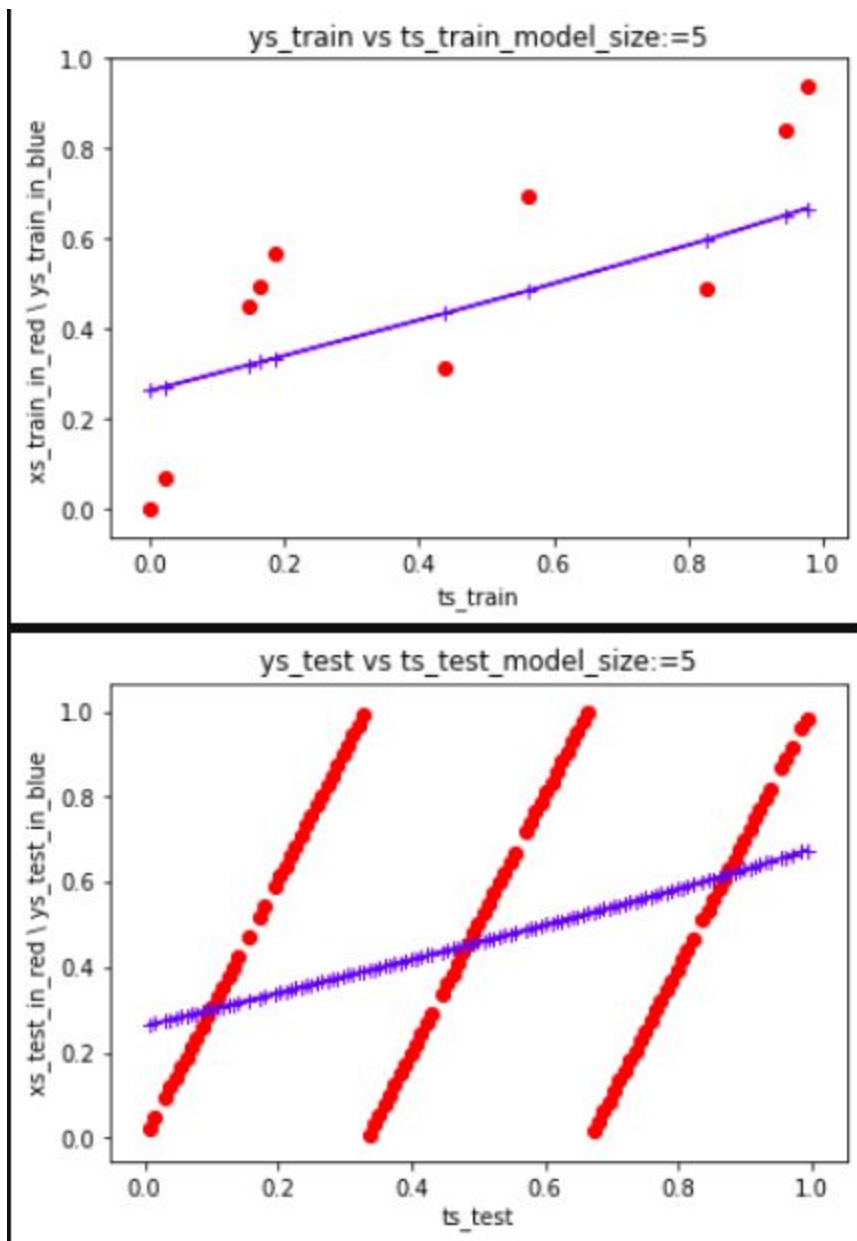


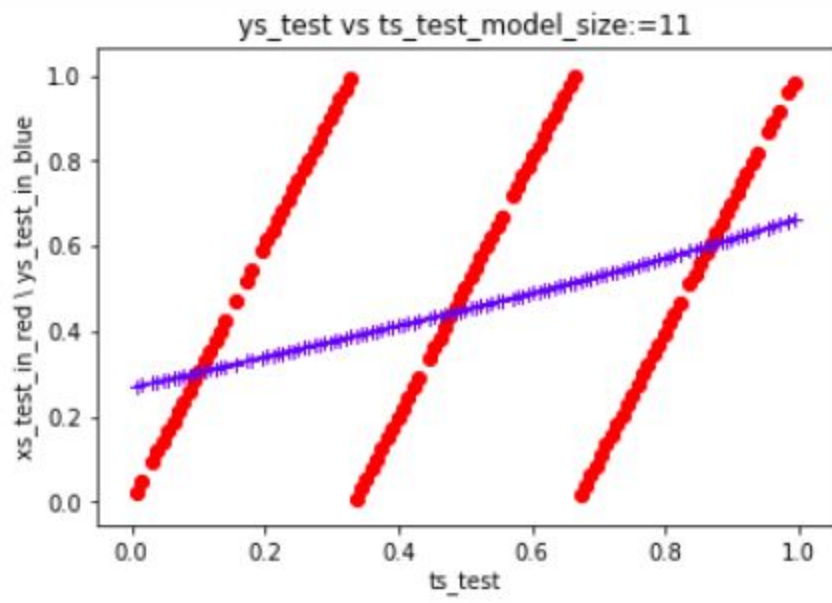
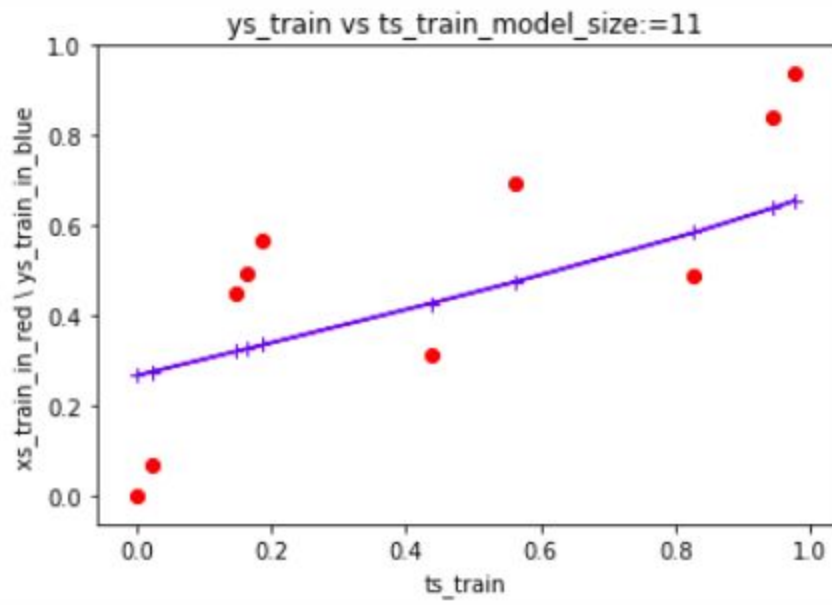


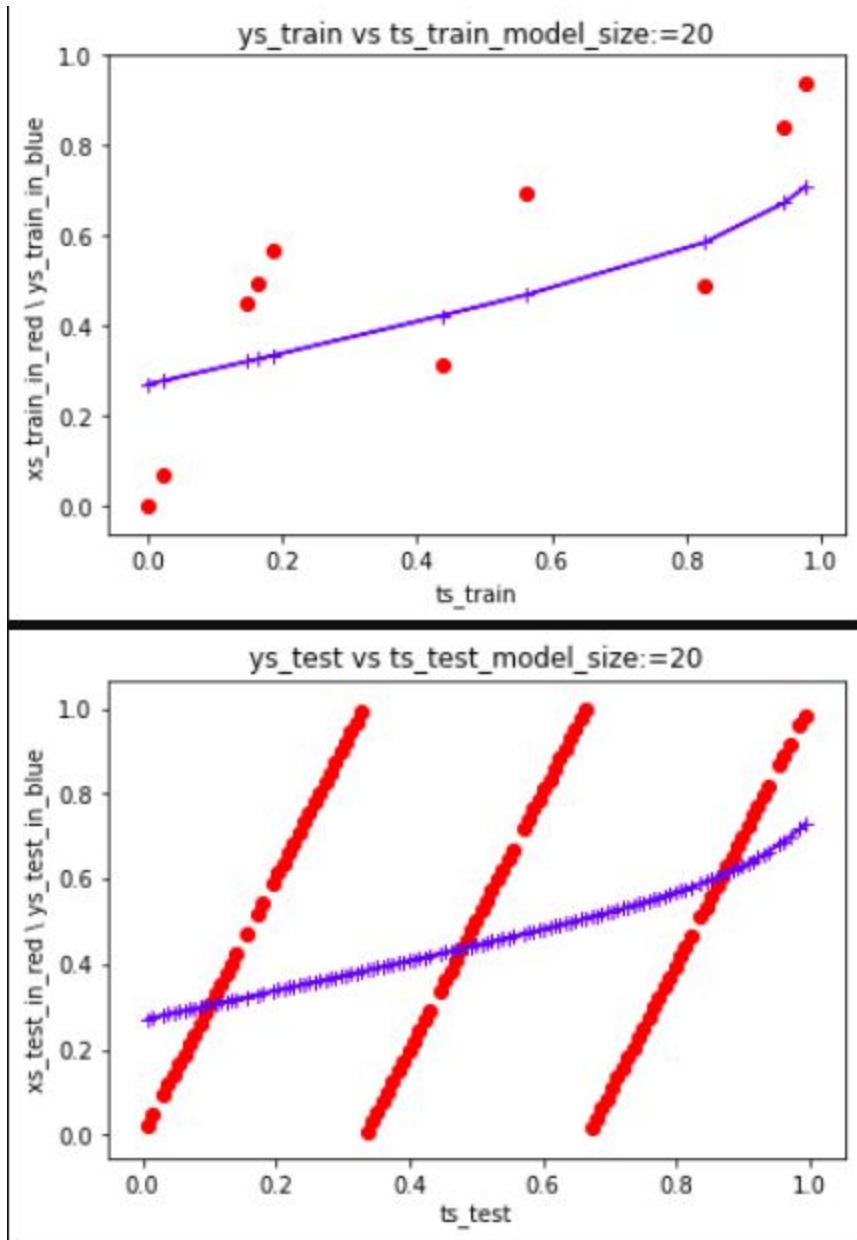




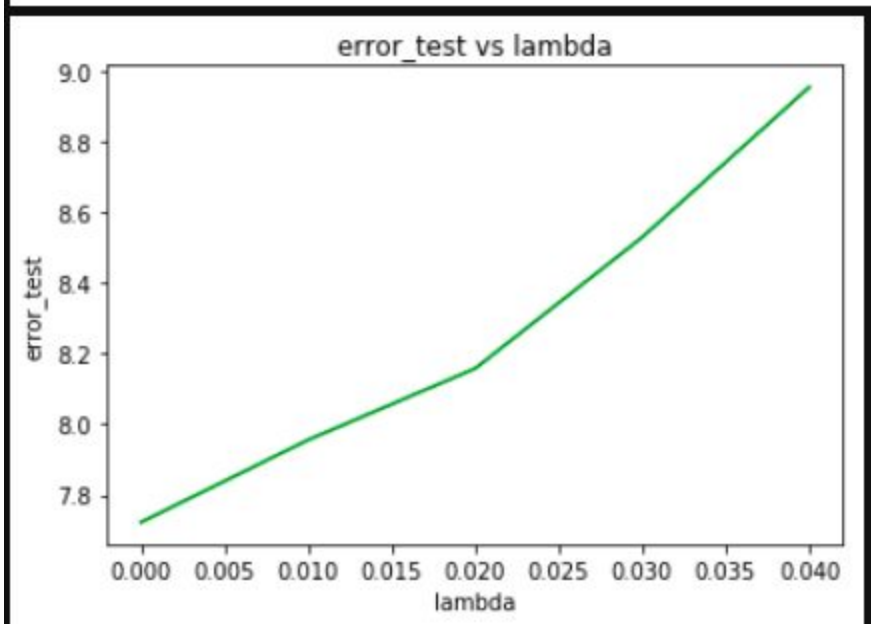
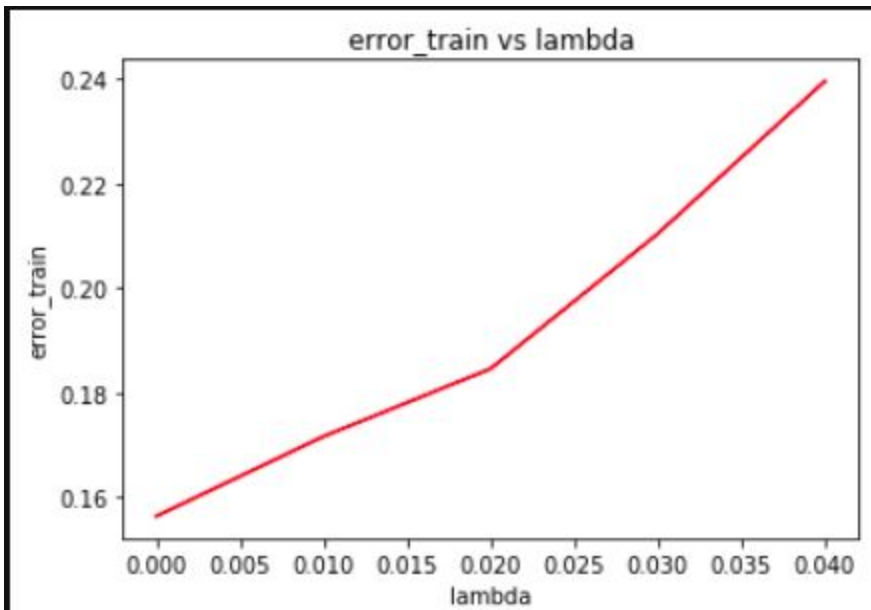
5: LASSO with lambda=2:

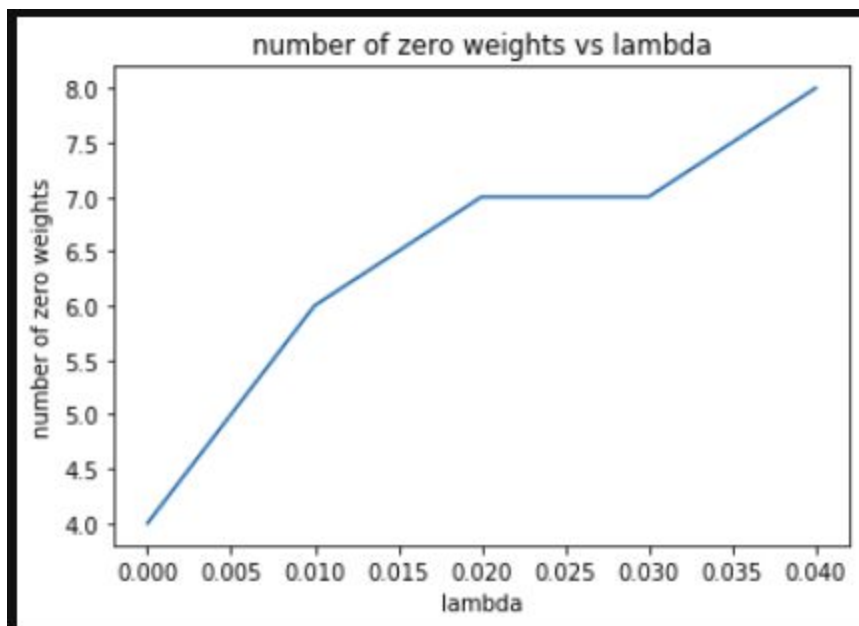
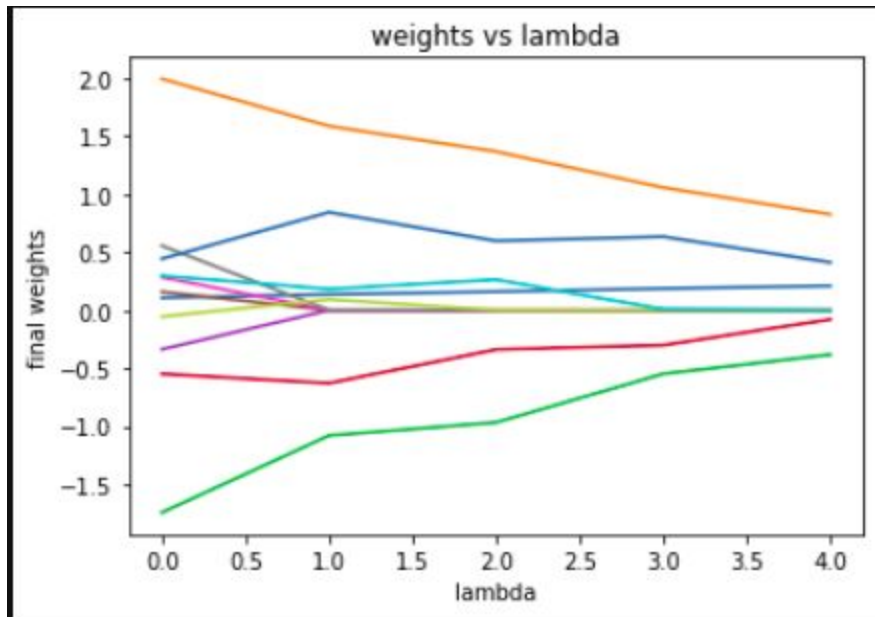






6: number of weights zero:





Until number of zero weights==5

