: PS9

Kyle Davis

## Question 1

404X14 - 390

## Question 2

In sample: 4.72, Out of sample: 4.6, Optimal Lambda: 0.0002501929

## **Question 3**

optimal lambda: 0.0002501929 RMSE: 4.73

## **Question 4**

Yes in theory you could but the model can perfectly fit the data by assigning large coefficients to the extra features leading to overfitting so its unadvisable. The two RMSE values being close suggest that there is a good fit with low bias since the models are performing similar comparing out of sample and in sample.