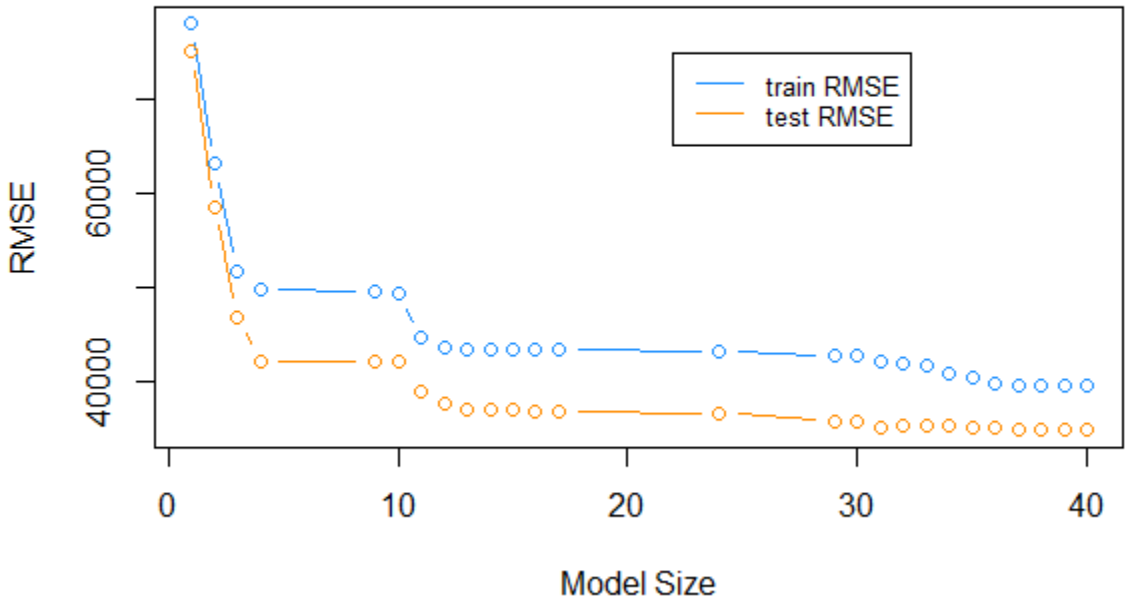
Lab 3

Exericse 2- Question 3



When trying to calculate for lowest RMSE, we first used the models we had previously created in Exericse 1. We believed the RMSE had potential to go lower, so we continued to add more models which were created by increasing the predictor by one, with values we believed would be correlated with our target. This resulted in a more flexible model and our train RMSE continued to decrease consistently while the test RMSE decreased while occasionally increasing due to overfitting (which is mentioned in the lab).

Because of overfitting, we decided to also evaluate R^2 to get insight in how much we vary, which we think could potentially make our groups prediction better than others because that is not information you would get if you only look at RMSE. Because the model with the lowest RMSE has an $R^2 = .78$ we know that the regression prediction fits the data well.