# Report 1b

In order to solve this task we first loaded the data into the notebook with pandas and split it into a data frame y and X. Then we applied the feature transformation and added the columns to a new data frame called X\_trafo. Next, we split the data into a train set and a test split. Following this we chose a Lasso regression to fit the model to the data. Evidently, we played around with different regression techniques such as Ridge and the standard linear regression but we found that Lasso gave us the best results. We had to play around with the different settings of LassoCV, namely the intercept, the number of folds, the alphas and the maximum amount of iterations. We got robust results with an alpha of roughly 0.1, 100 folds a maximum of 100’000 iterations and, most importantly, no fitting of the intercept. Finally, we tested our model with the test set and got a root mean squared error of 1.86 for the test set, which led to a public score of 2.06.