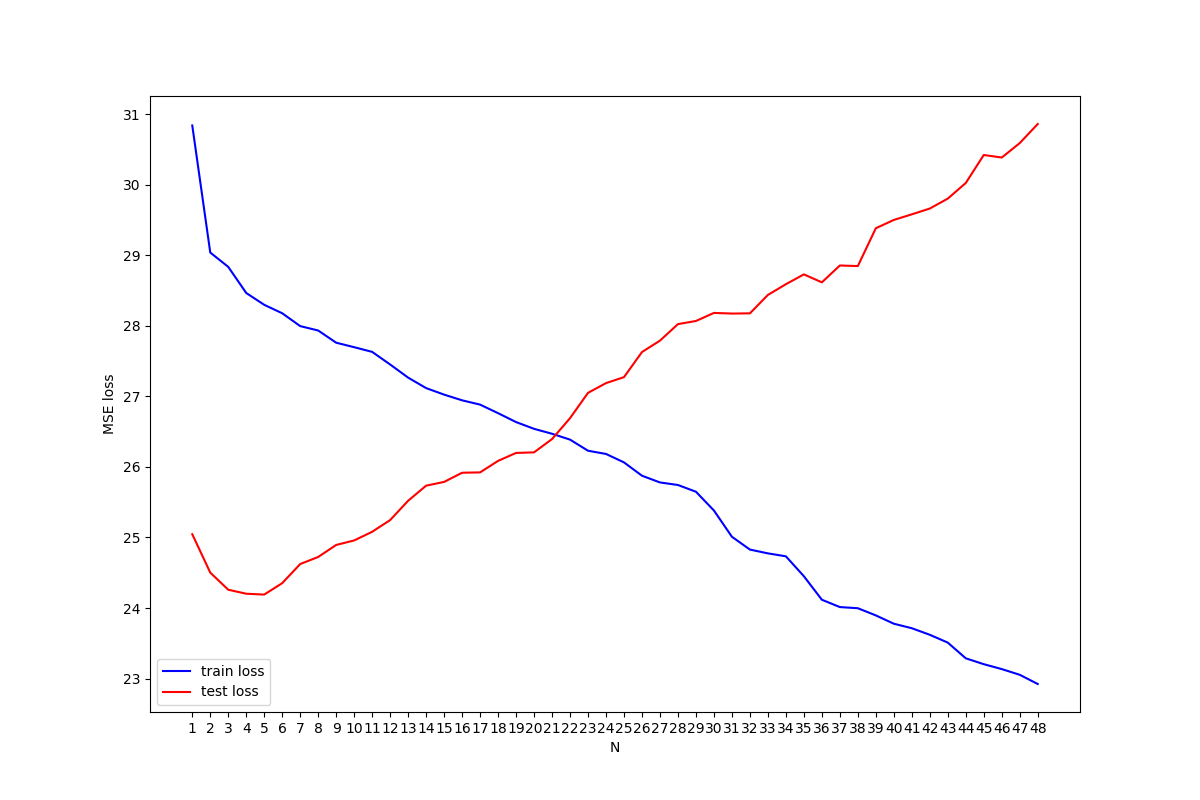
線性代數作業5 report

Q2作圖：



From the figure above, we can notice that less error in training set doesn’t also mean less error in testing set. As N going greater, more parameters are considered in the regression. More parameters could cause overfitting in testing set since the variance of data is larger, which causes more loss.

Q3.

For better performance, I chose to use RNN for training(GRU cell). By considering the data of previous hour first other than processing them at the same time. Although, I started my homework to late, I believe there are still many improvement that can be done in my rnn code.

The hyperparameters are:

lr = 1e-5,

optimizer = Adam

batch\_size in dataloader is actually N, since batch\_size\_first of RNN is set to false, its actually the input length.