

## Paul Crann HW 2

### Part 2:

Alpha = 0.001, Num Epochs: 10000, Test Loss: 0.00299

As we decrease our Alpha value, we must increase the number of epochs to achieve a similar loss. This is because on each epoch we are updating our weights by less, meaning we need to update them more times to converge on optimal weights. Conversely, if we have larger Alpha values, we need fewer epochs to converge close to the optimal weights (assuming it's not too large that we don't converge).