

LINEAR REGRESSION:

| Error Tolerance | Learning Rate | MSE |
|-----------------|---------------|-------|
| 0.000001 | e-6 | 19.63 |
| 0.0000001 | e-5 | 28.29 |
| 0.0000001 | e-6 | 23.18 |
| 0.0000001 | e-7 | 21.16 |

We observe that for the same learning rate, if we decrease the error tolerance then the Mean Squared Error will increase. Whereas for the same error tolerance if we decrease the learning rate then the Mean Squared Error will also decrease.