Exercise 11

We can recall that those presented parameters gives minimum error variance, in case where:

For those parameters by minimizing the MSE:

We can prof that the obtained line allways go through the point (, becouse we can note how the parameters are estimated by :

We get then:

From that we see the prof, the regression line will go through the point (.

Formula derivation:

, ,

Exercise 12

We assume that with and assume that all for are independent.

So the for estimators and will look like this:

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When the value is 0, the estimator is unbiased.

Variance:

Standard error of estimation: