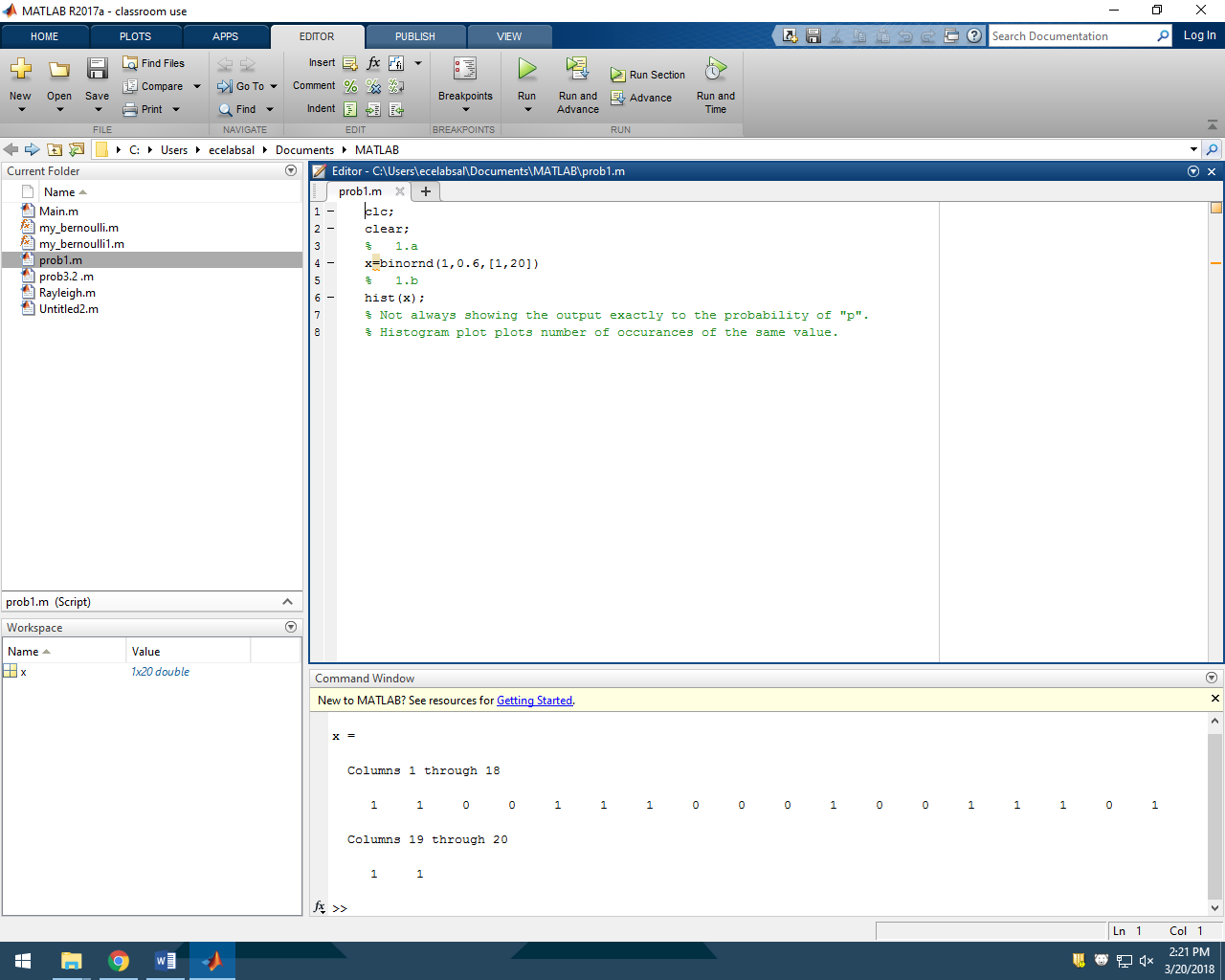
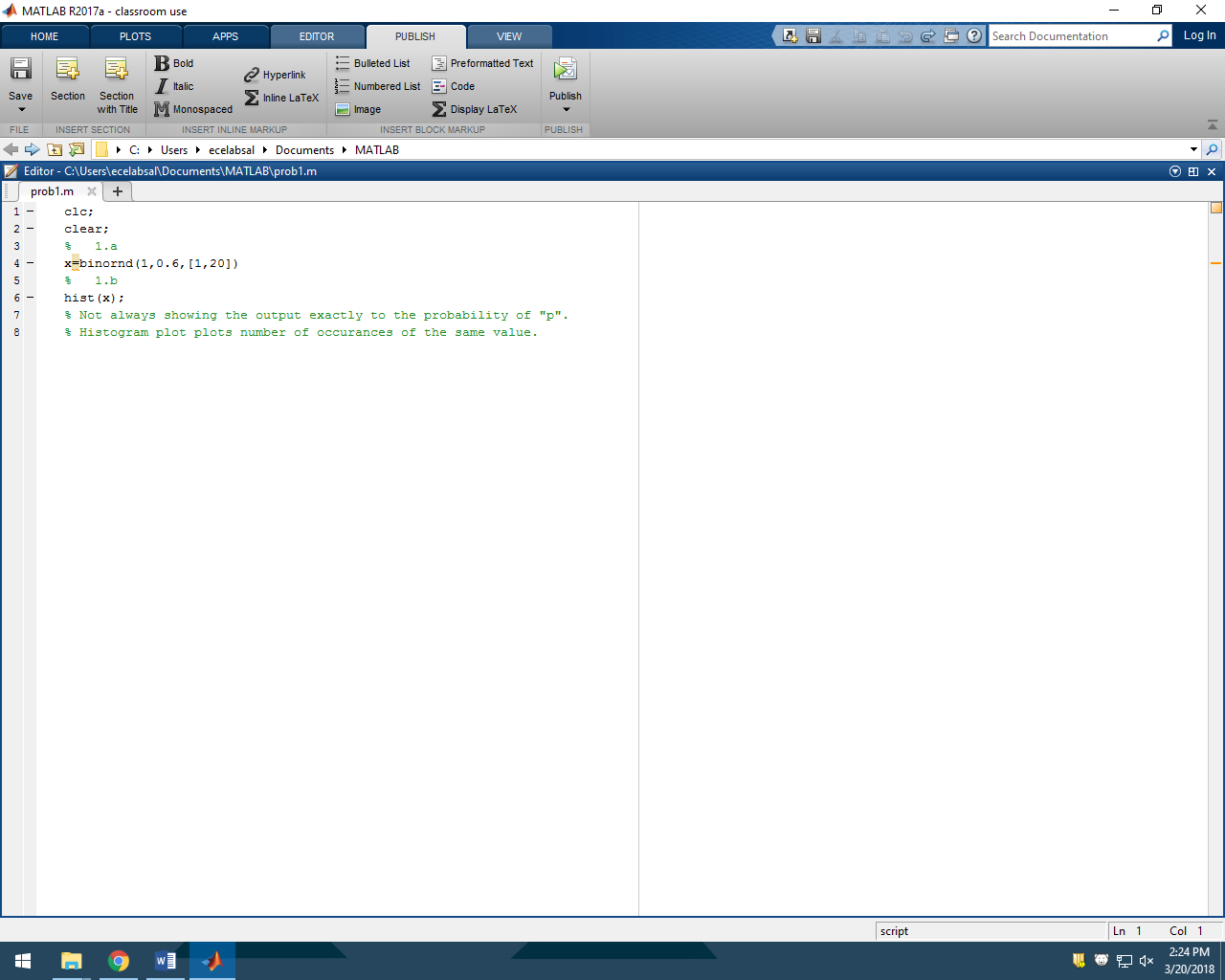
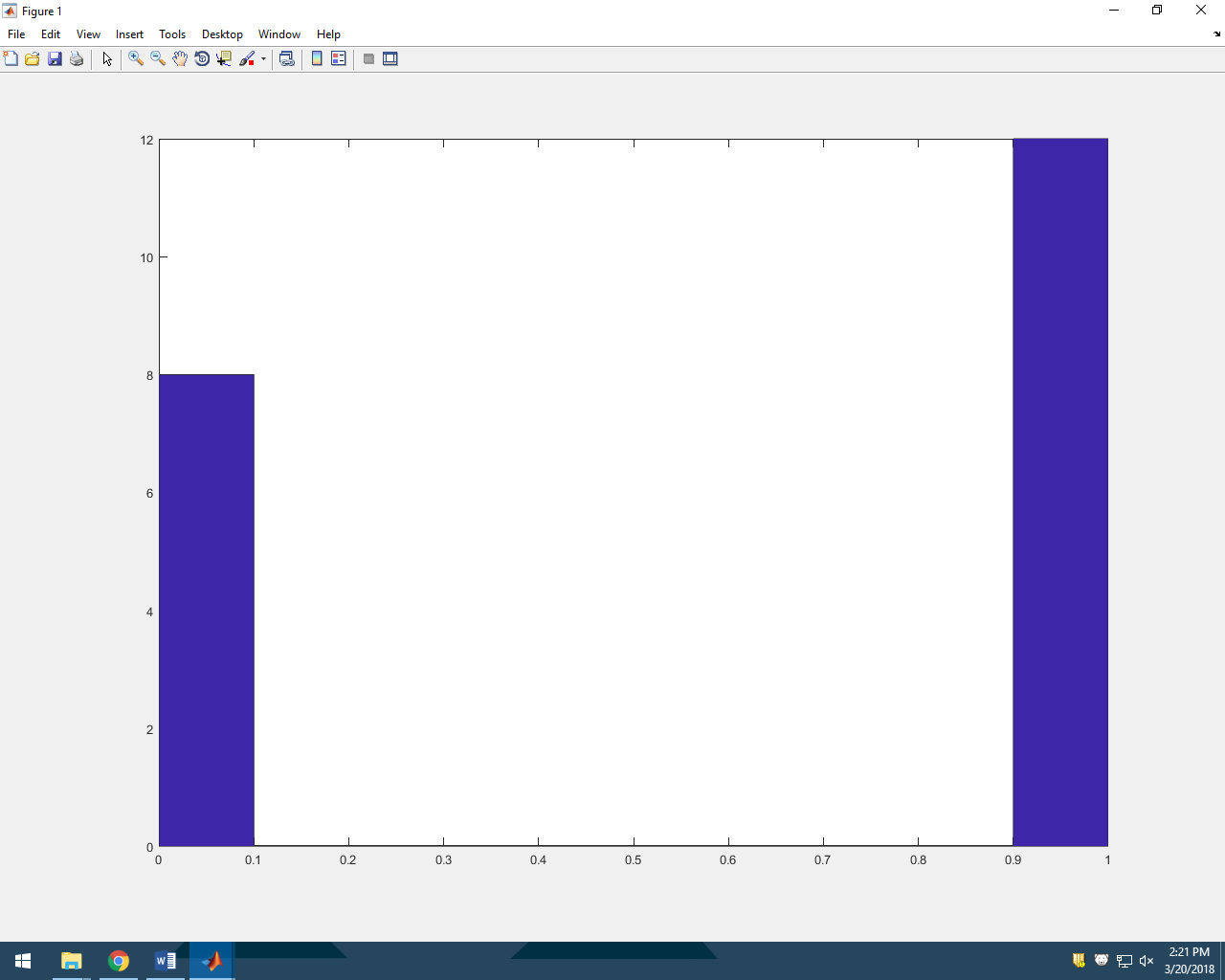
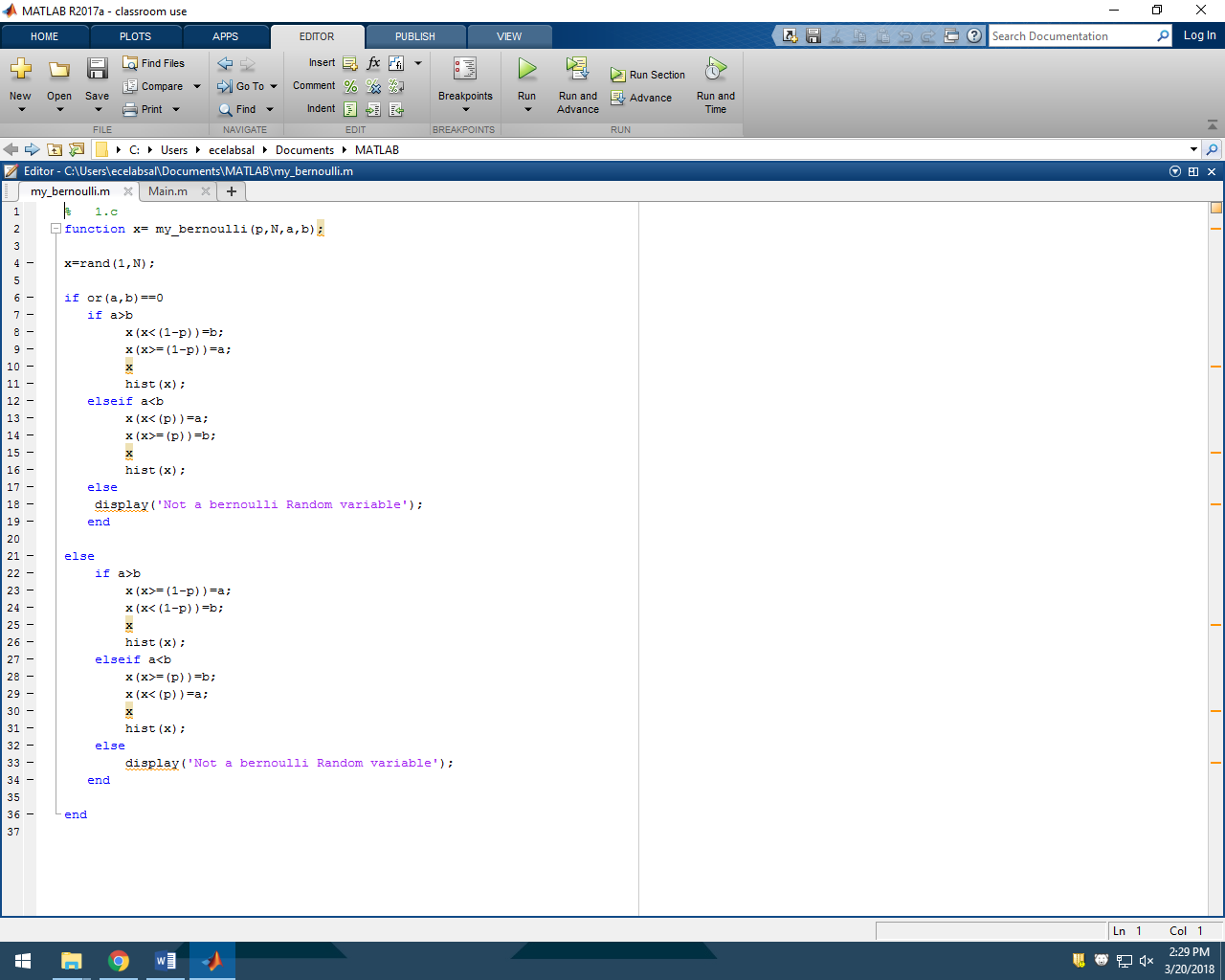
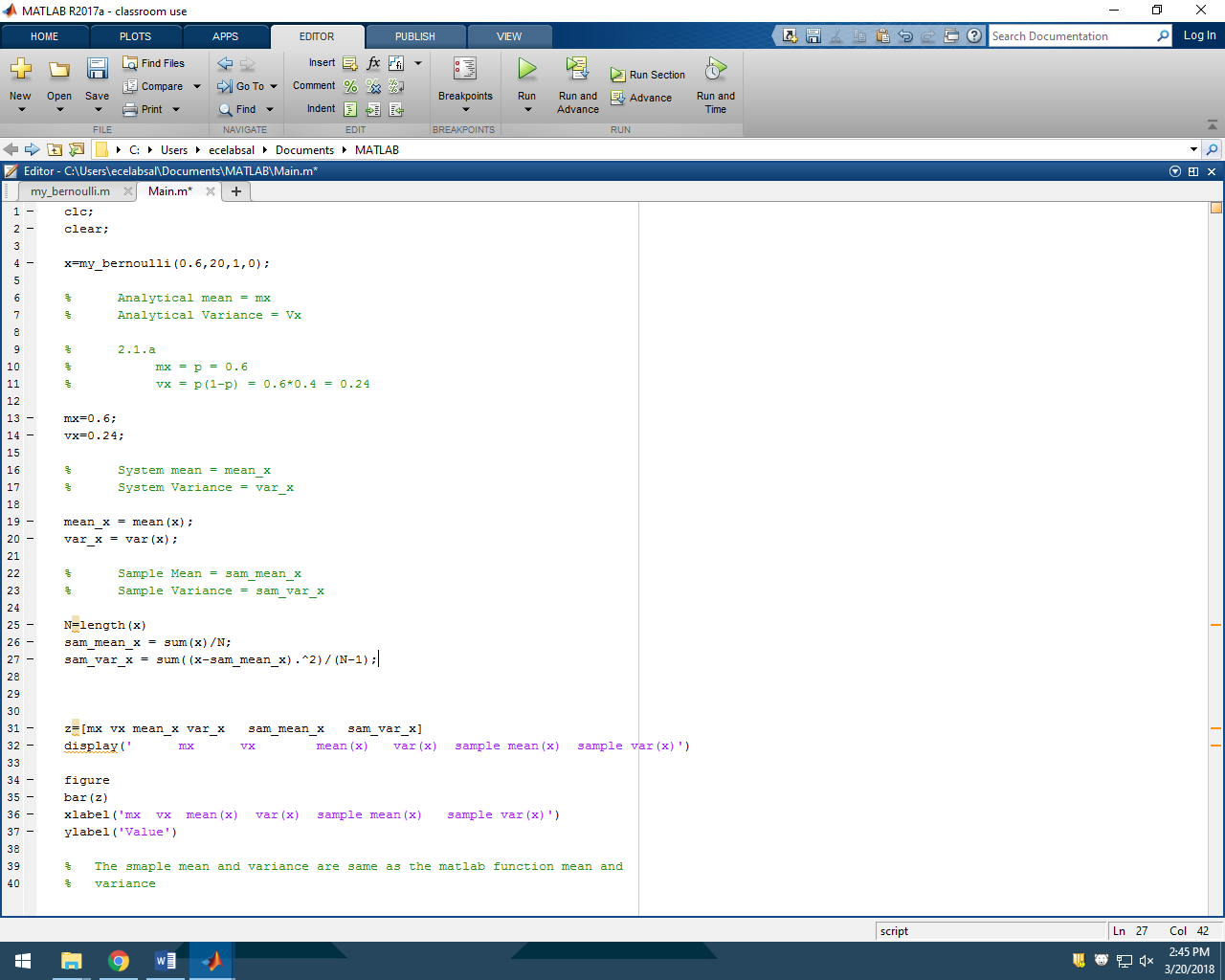
1

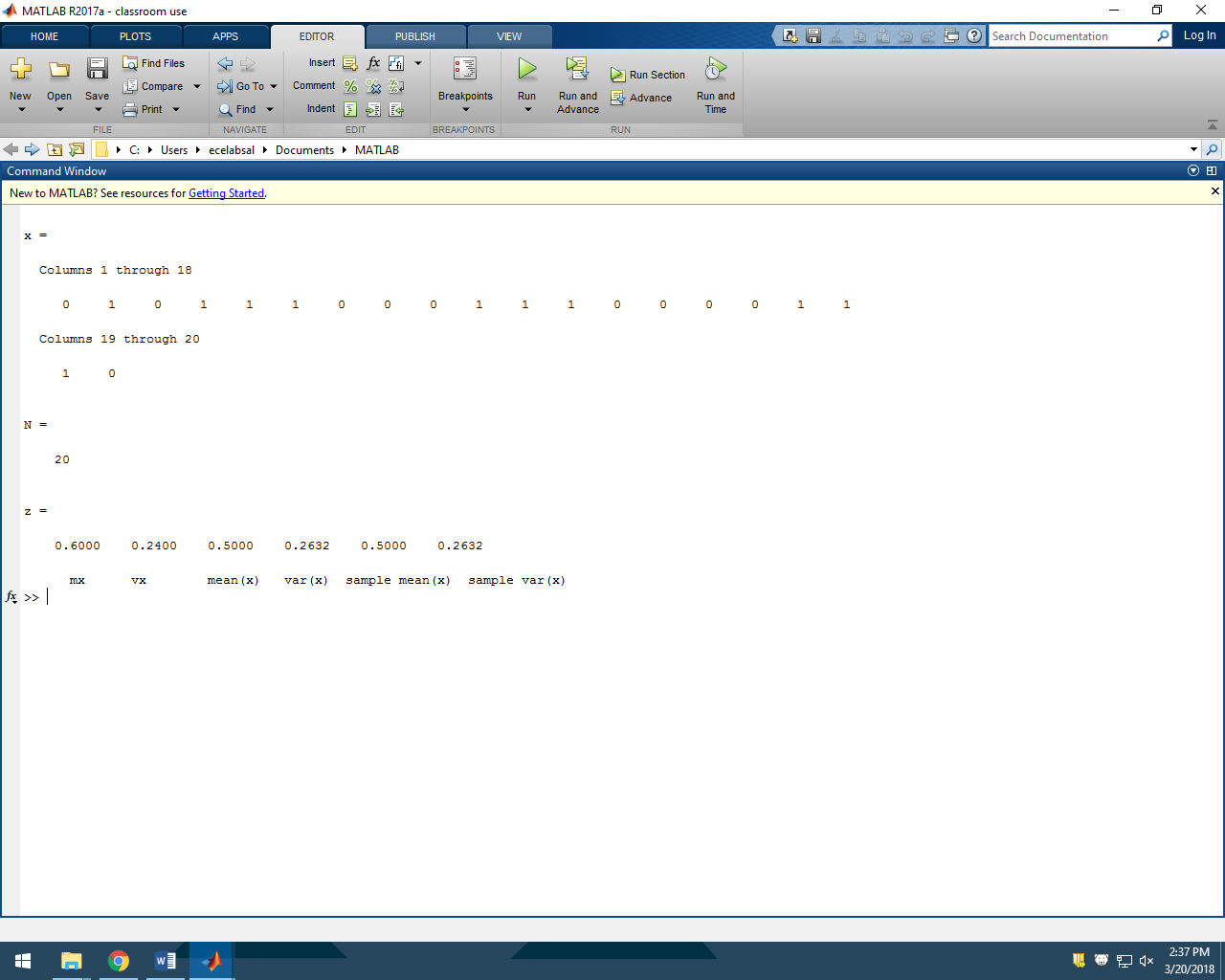






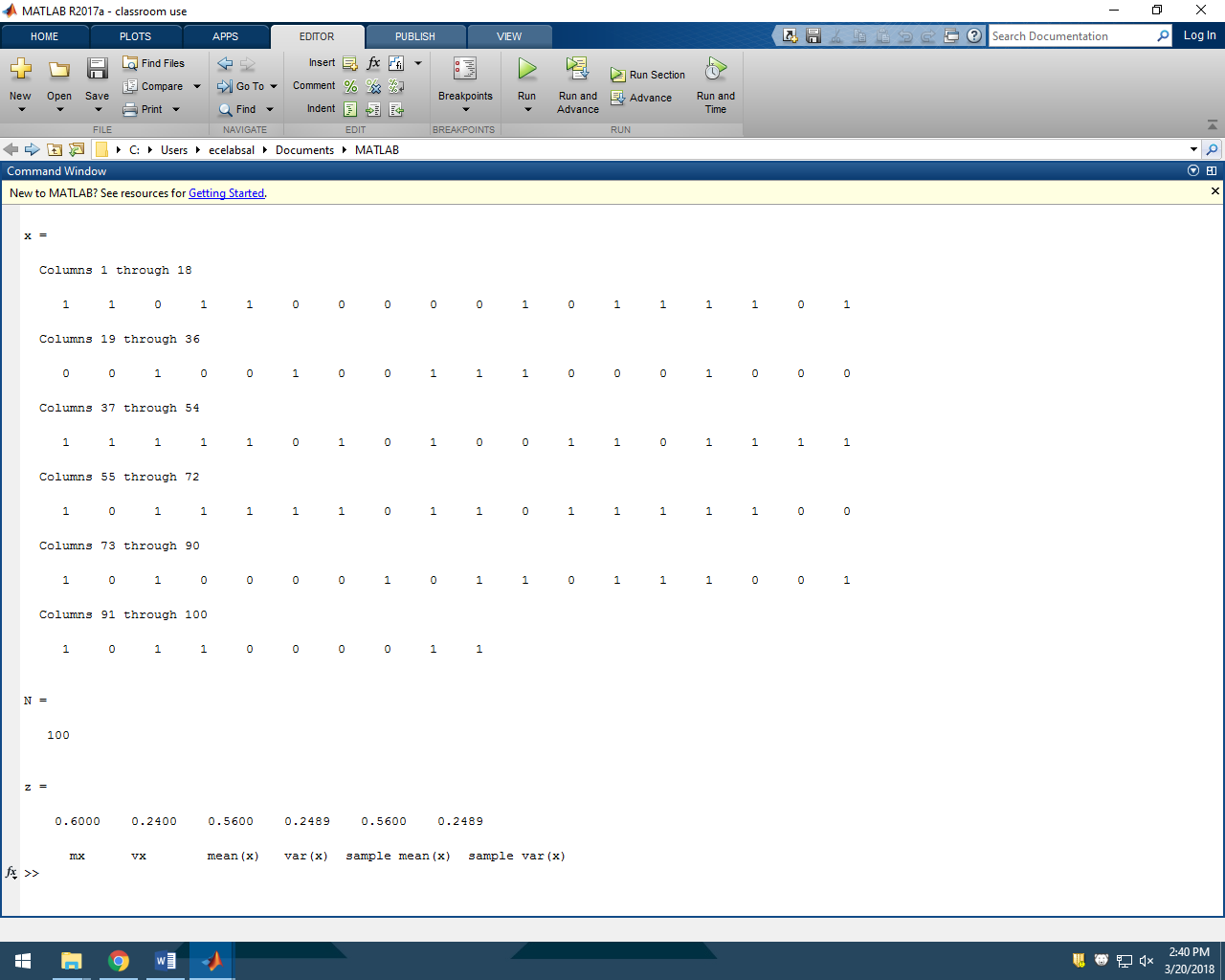


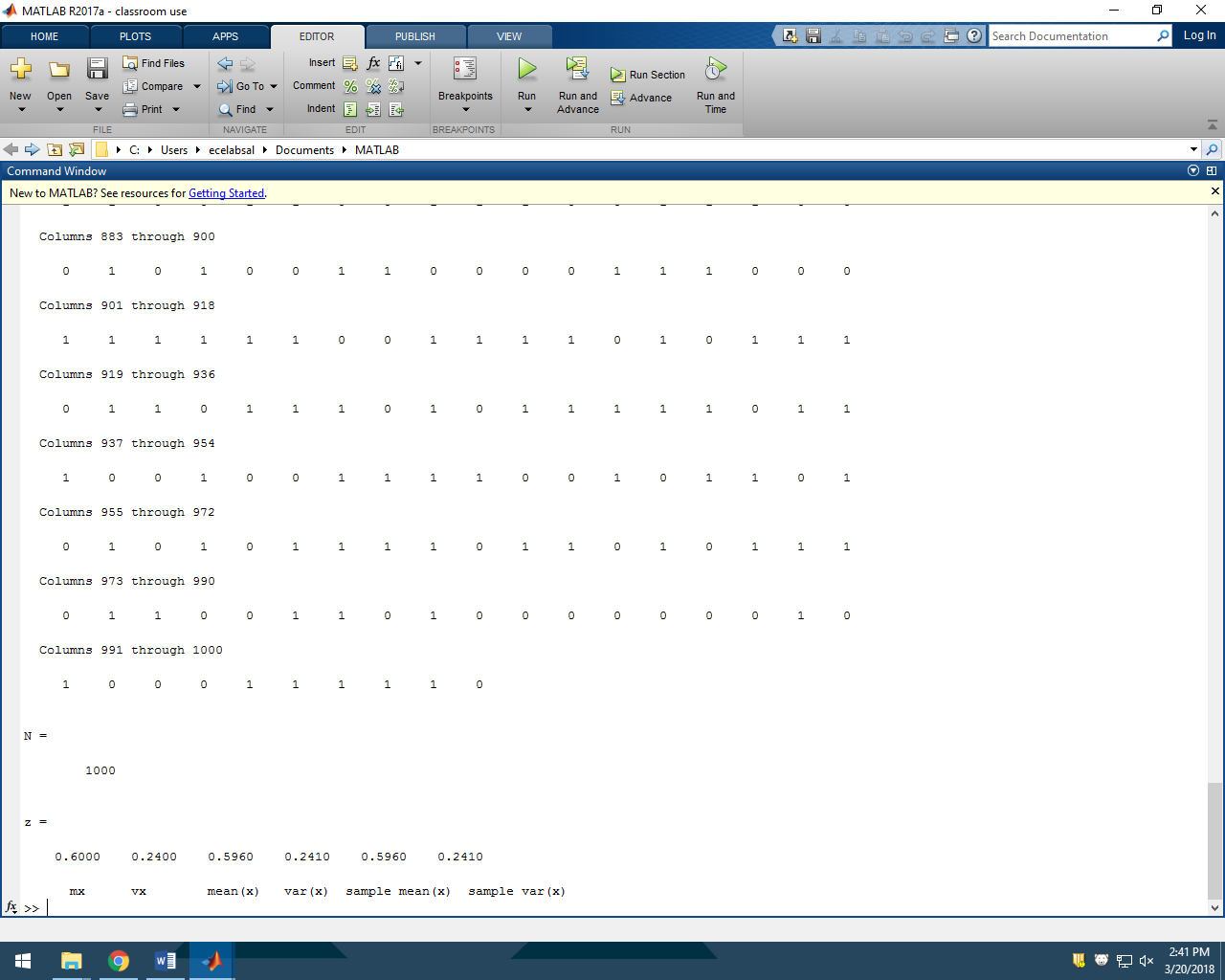
2.1.b



Yes, Sample mean and variance and Mat lab functions mean and variance are same.

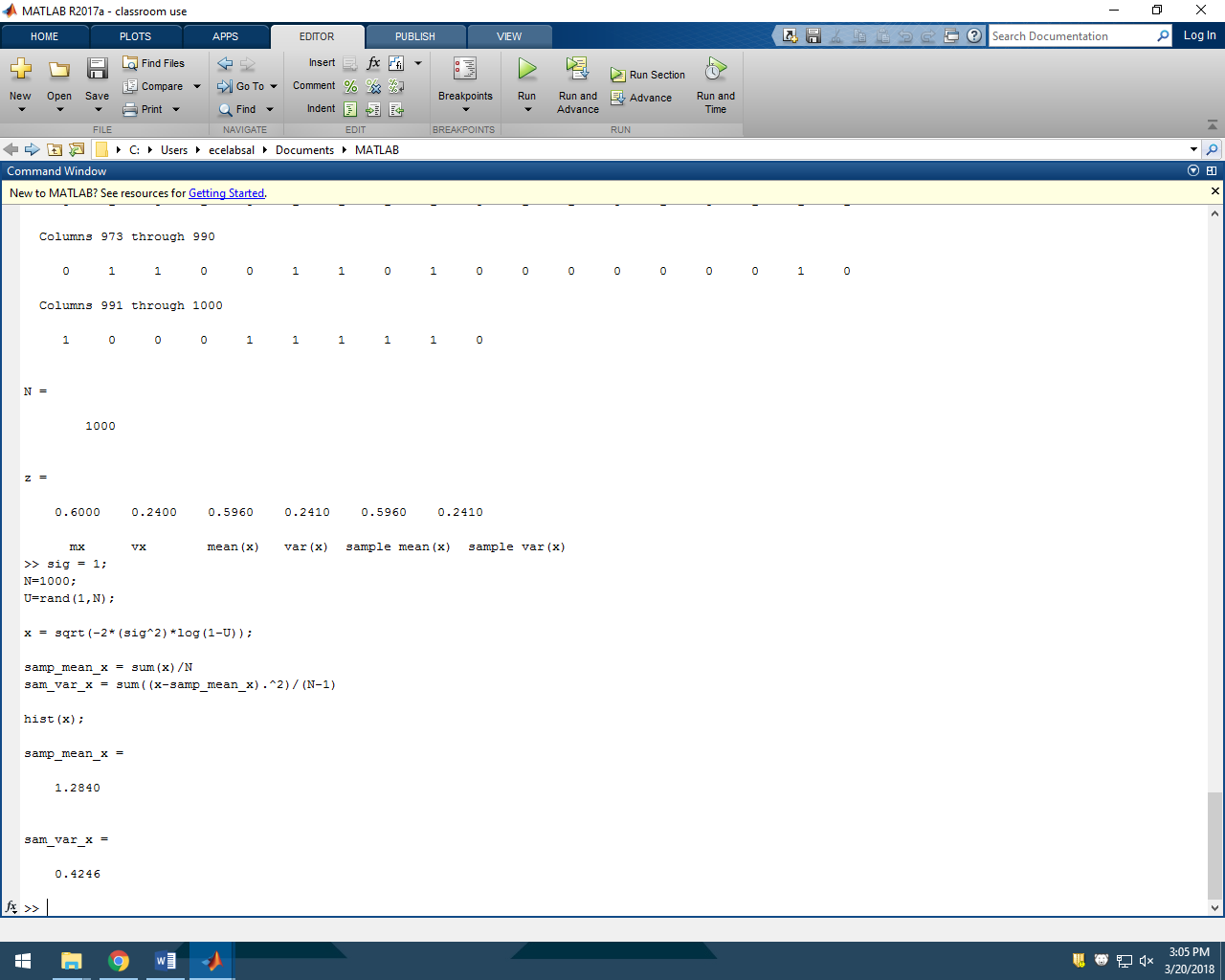
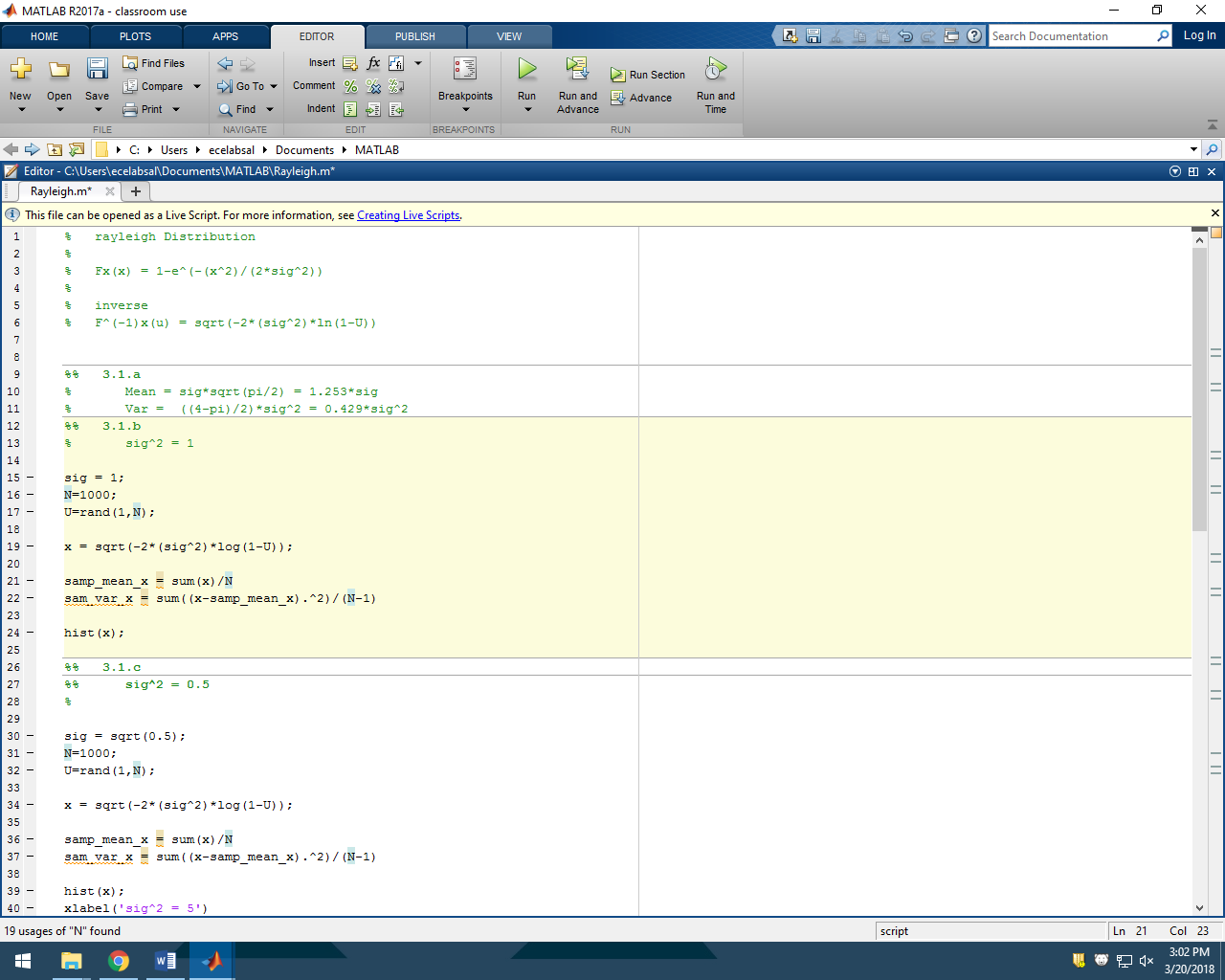
2.1.c

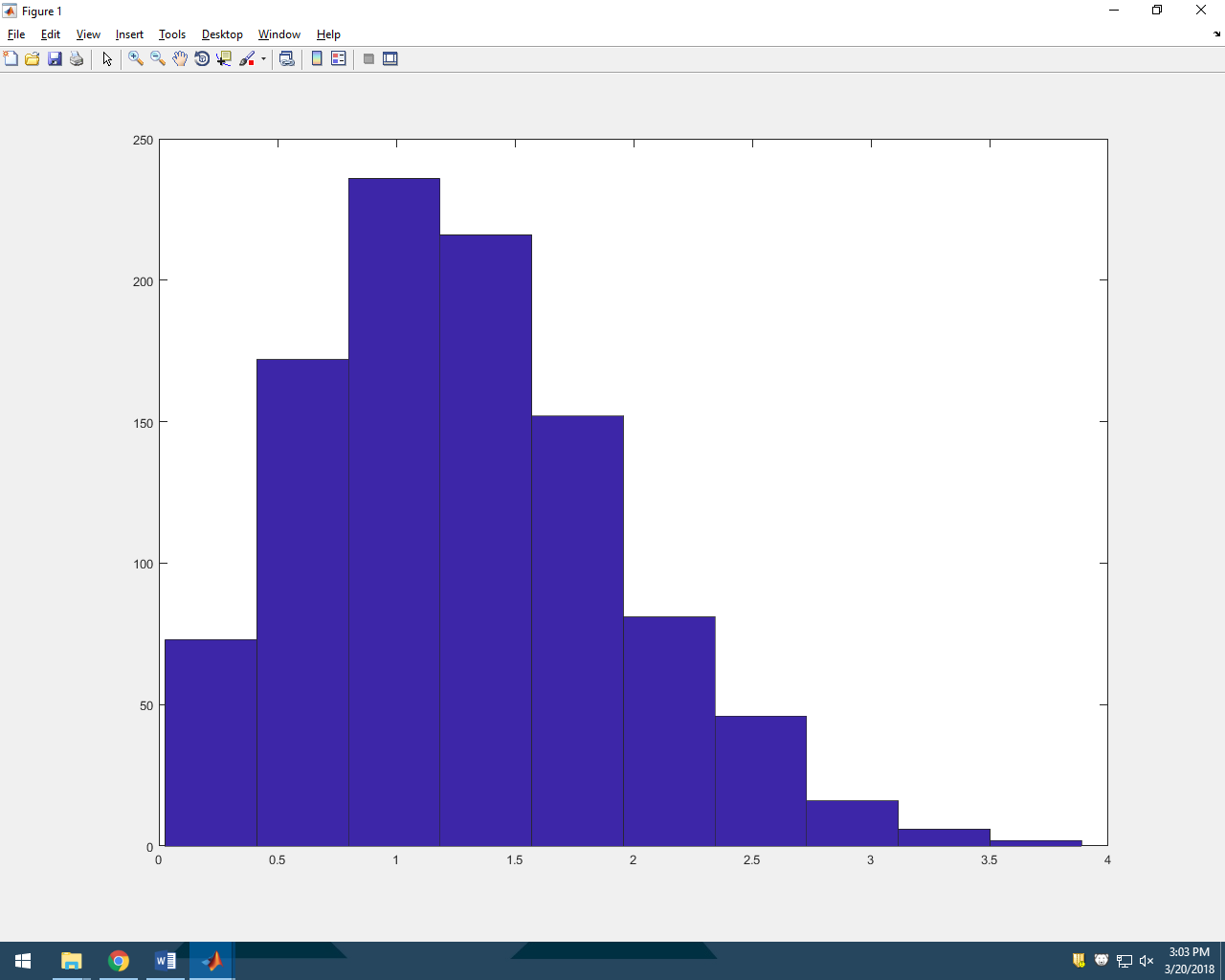


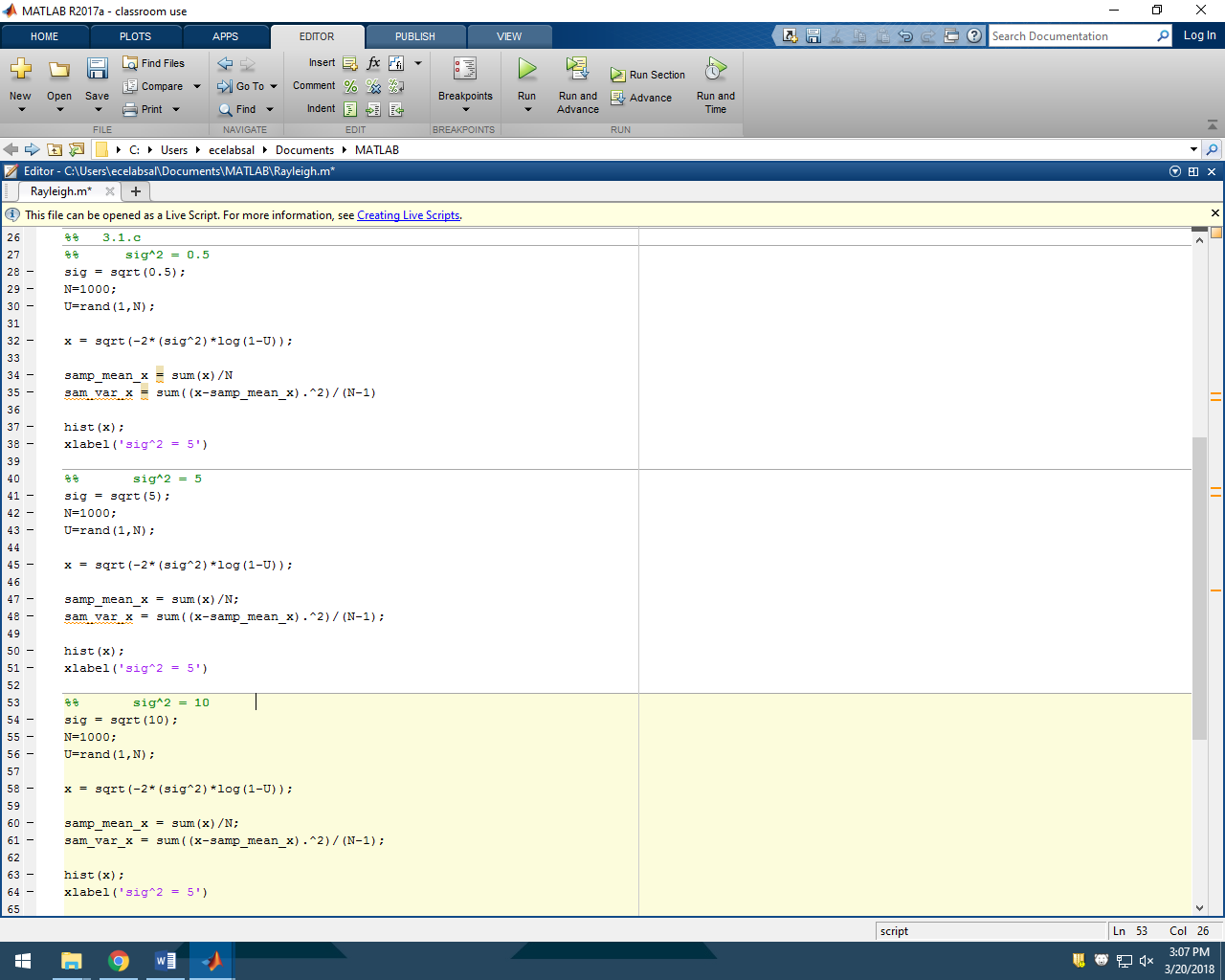
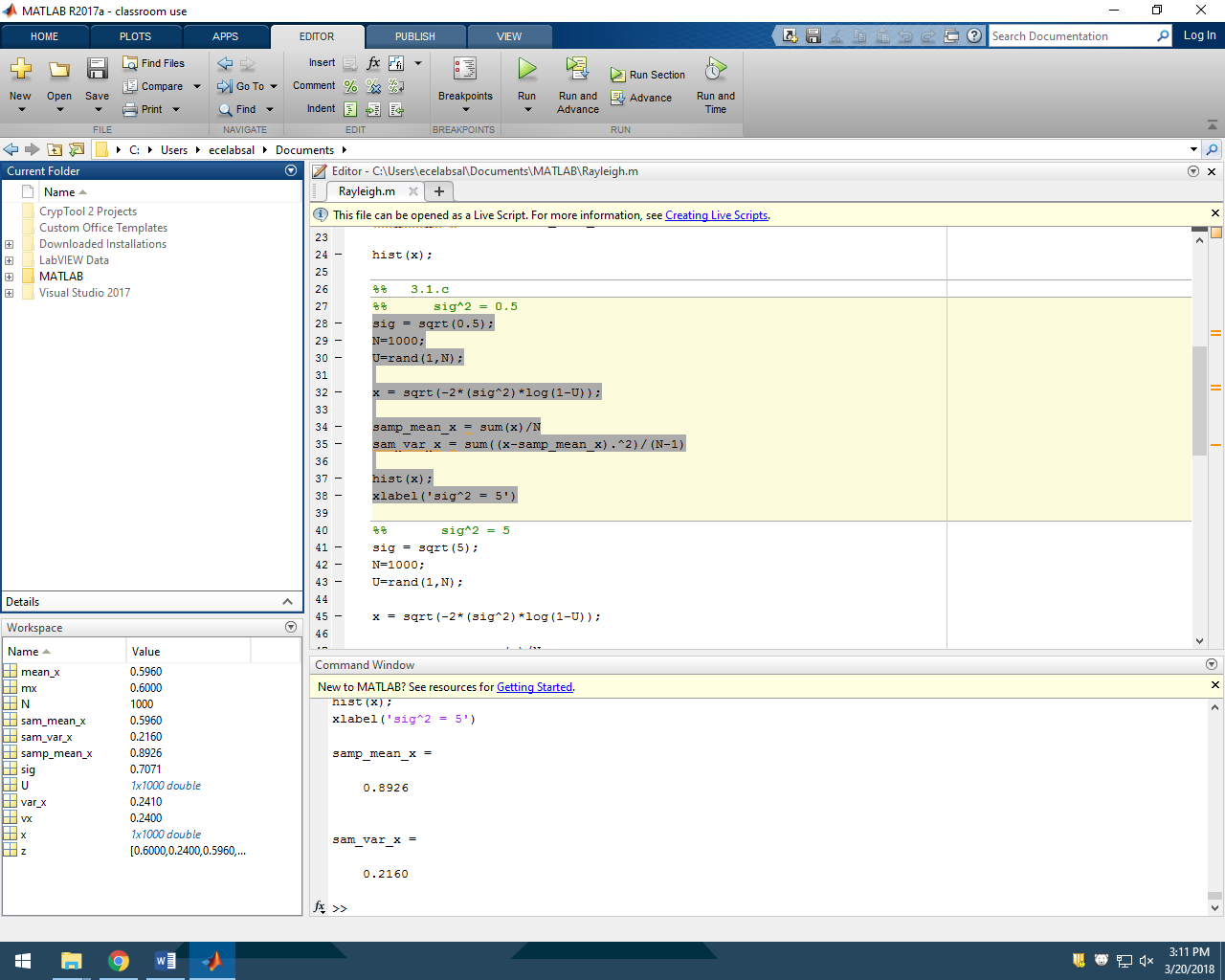
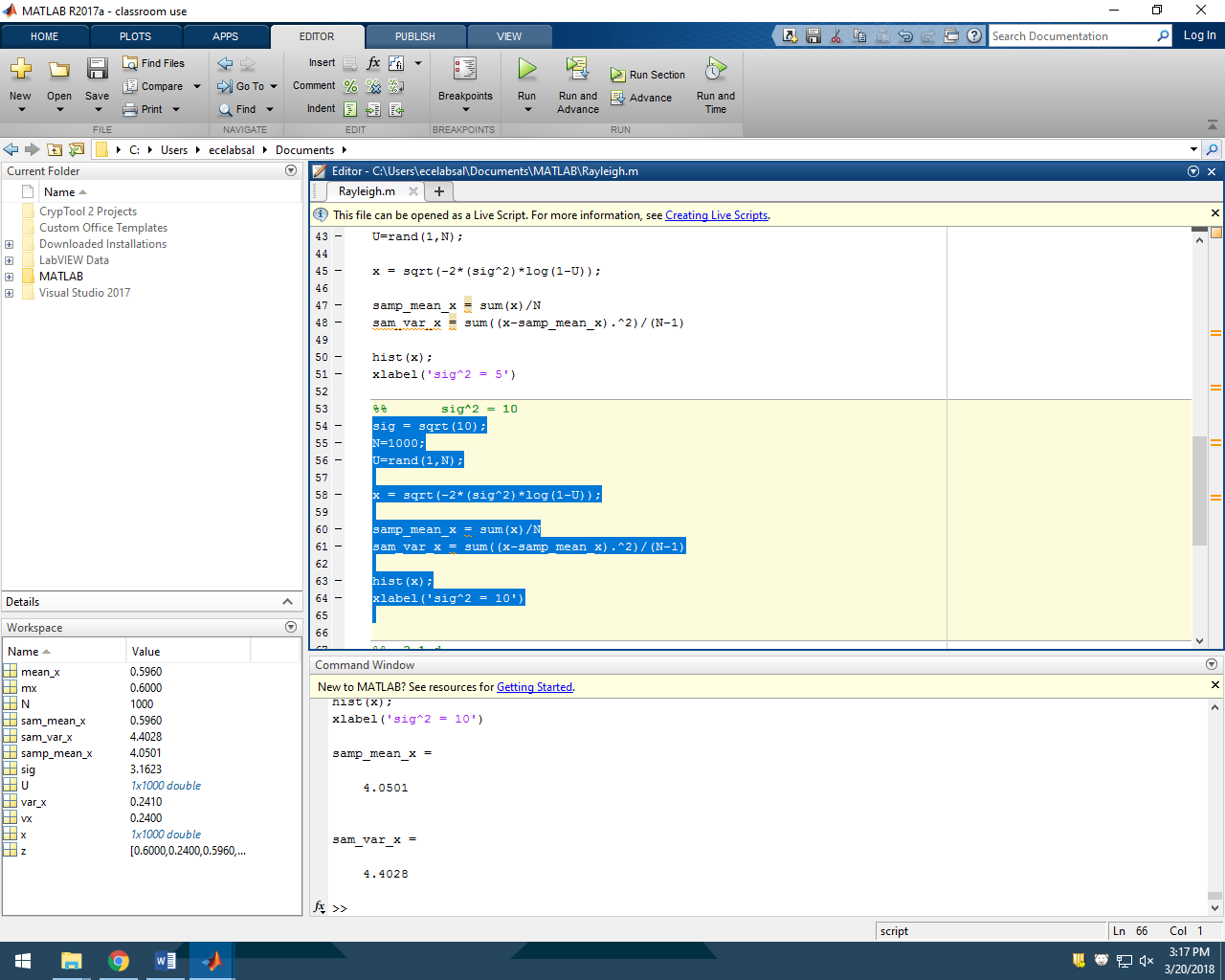
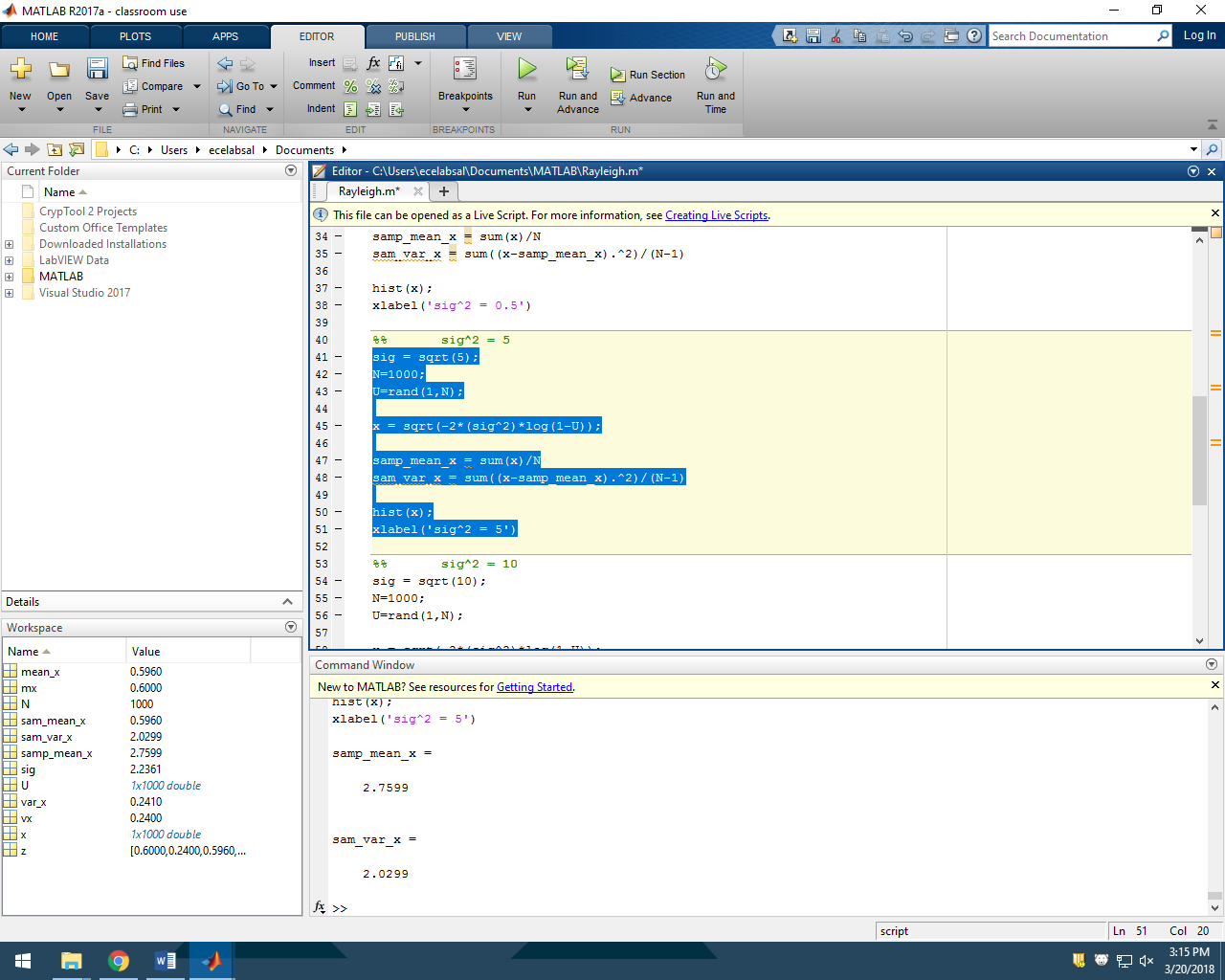


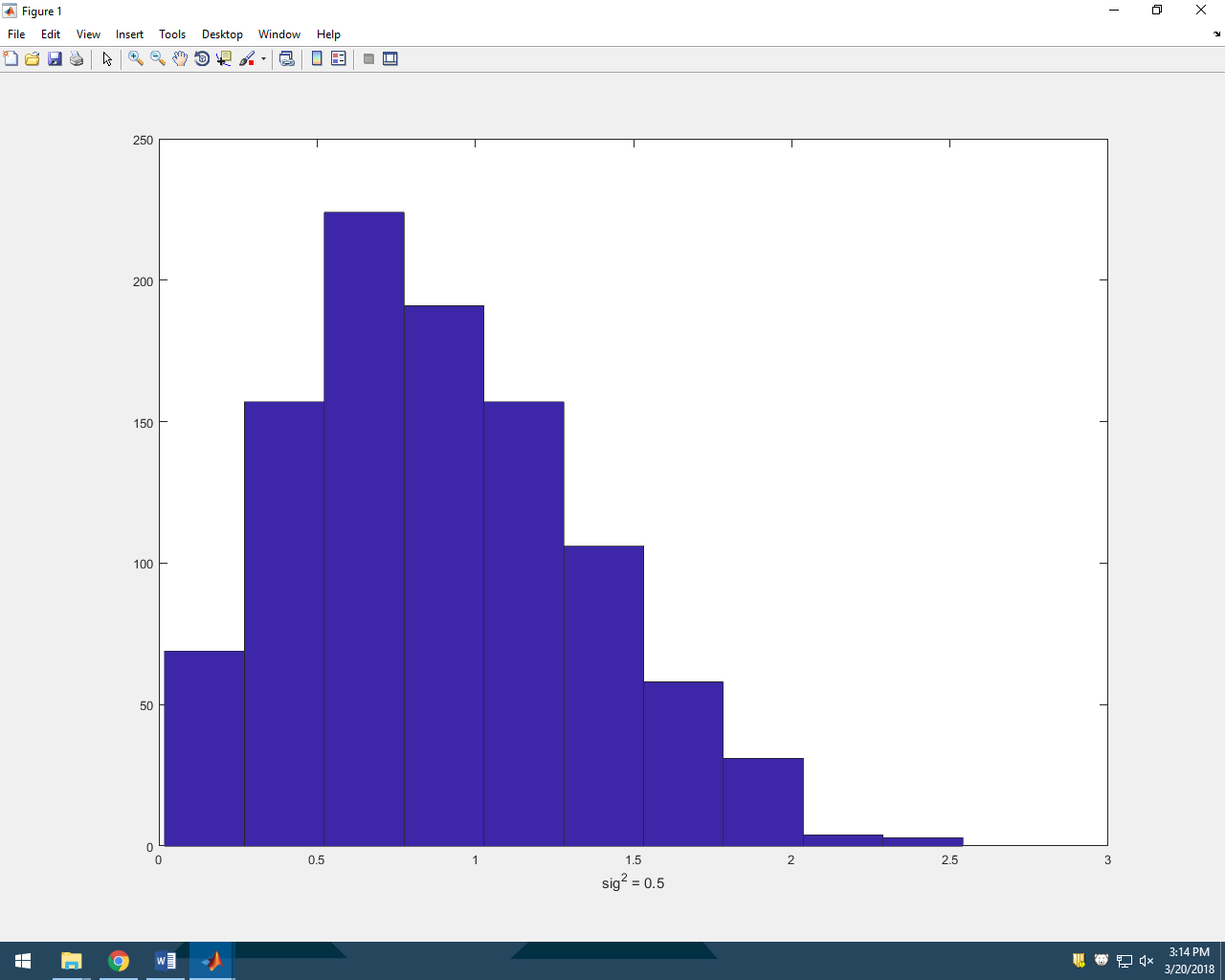
Yes, sample mean and variance changes with the value of N.

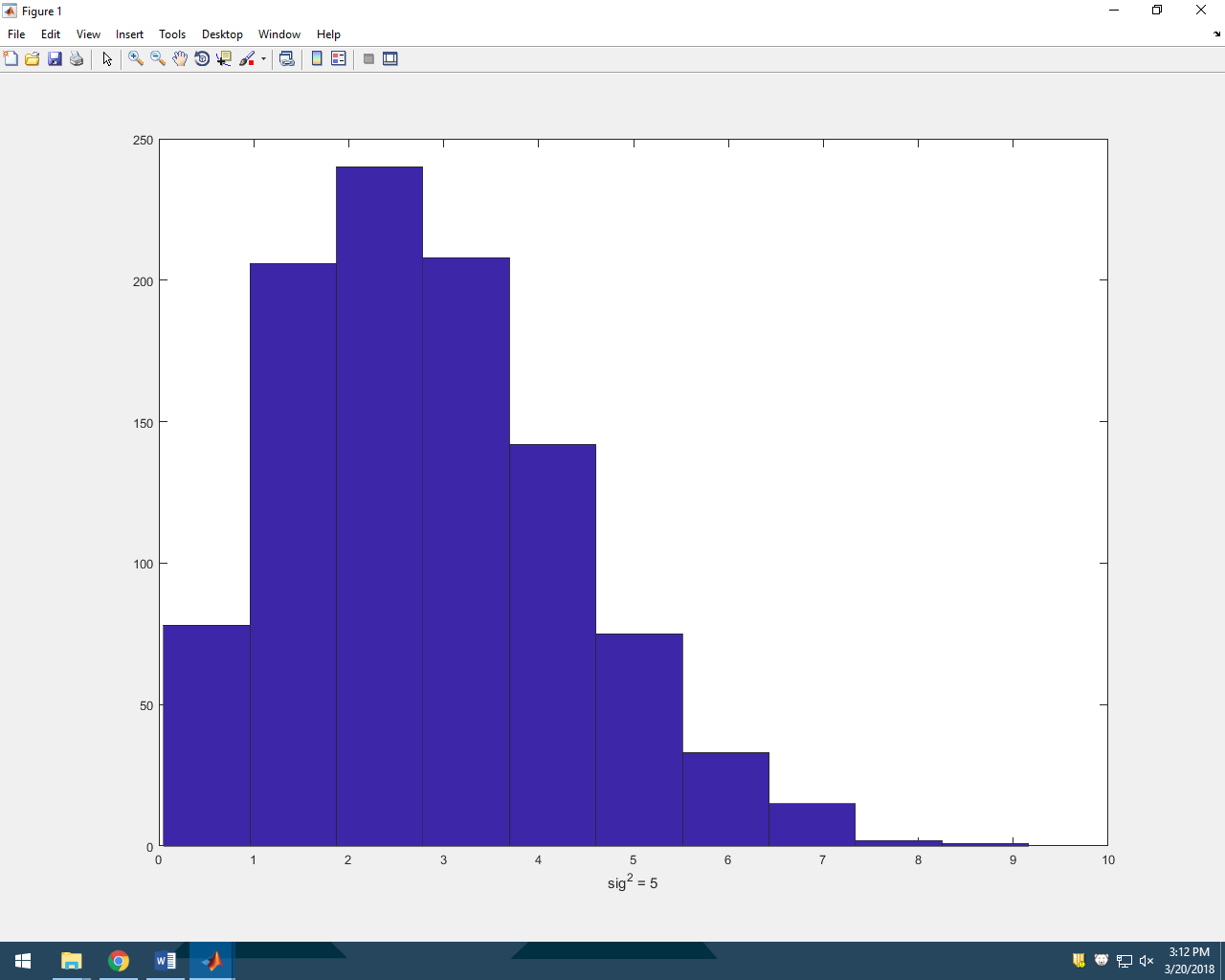
Yes, they are closer to the analytical values. More the N, closer to the analytical values.

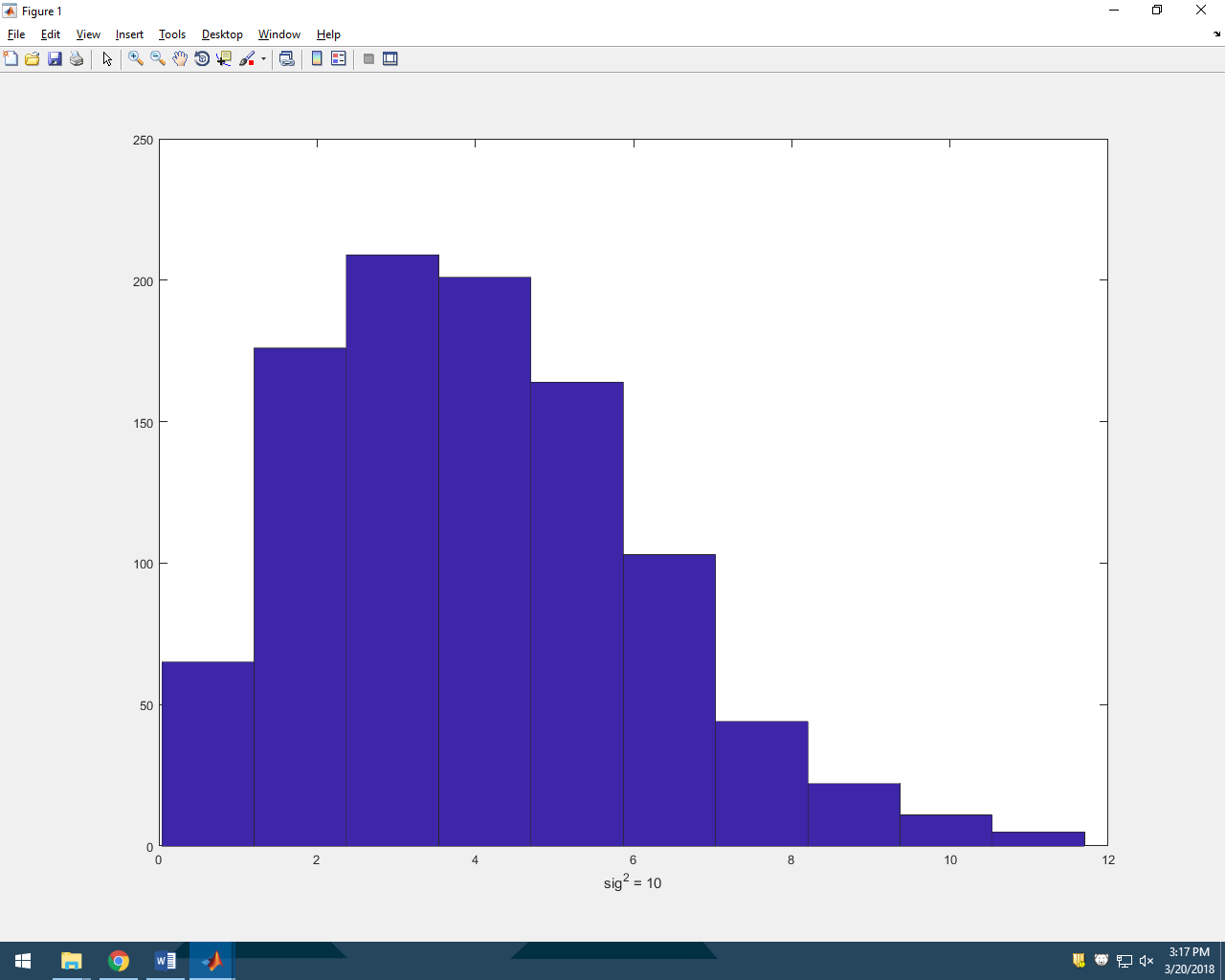


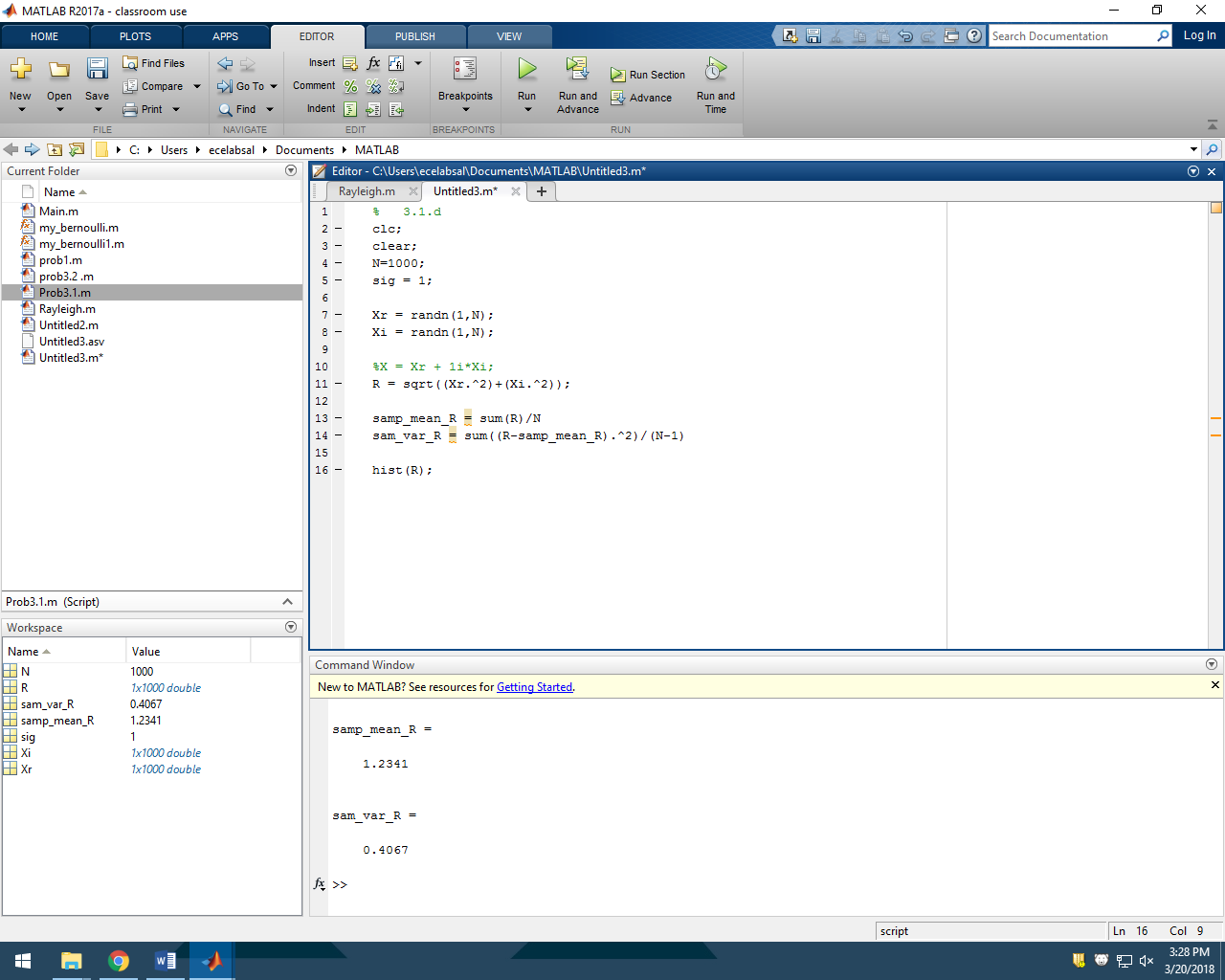
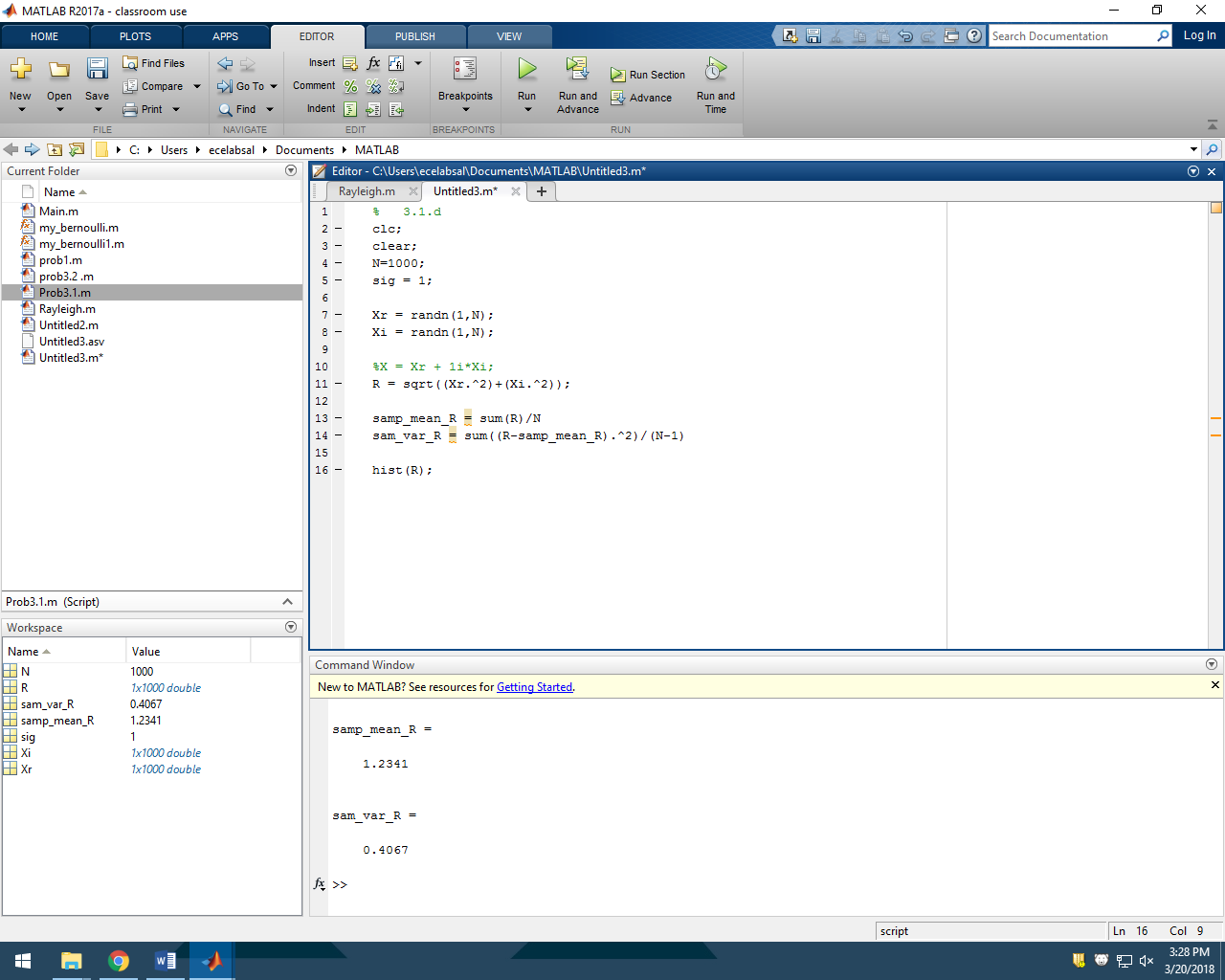


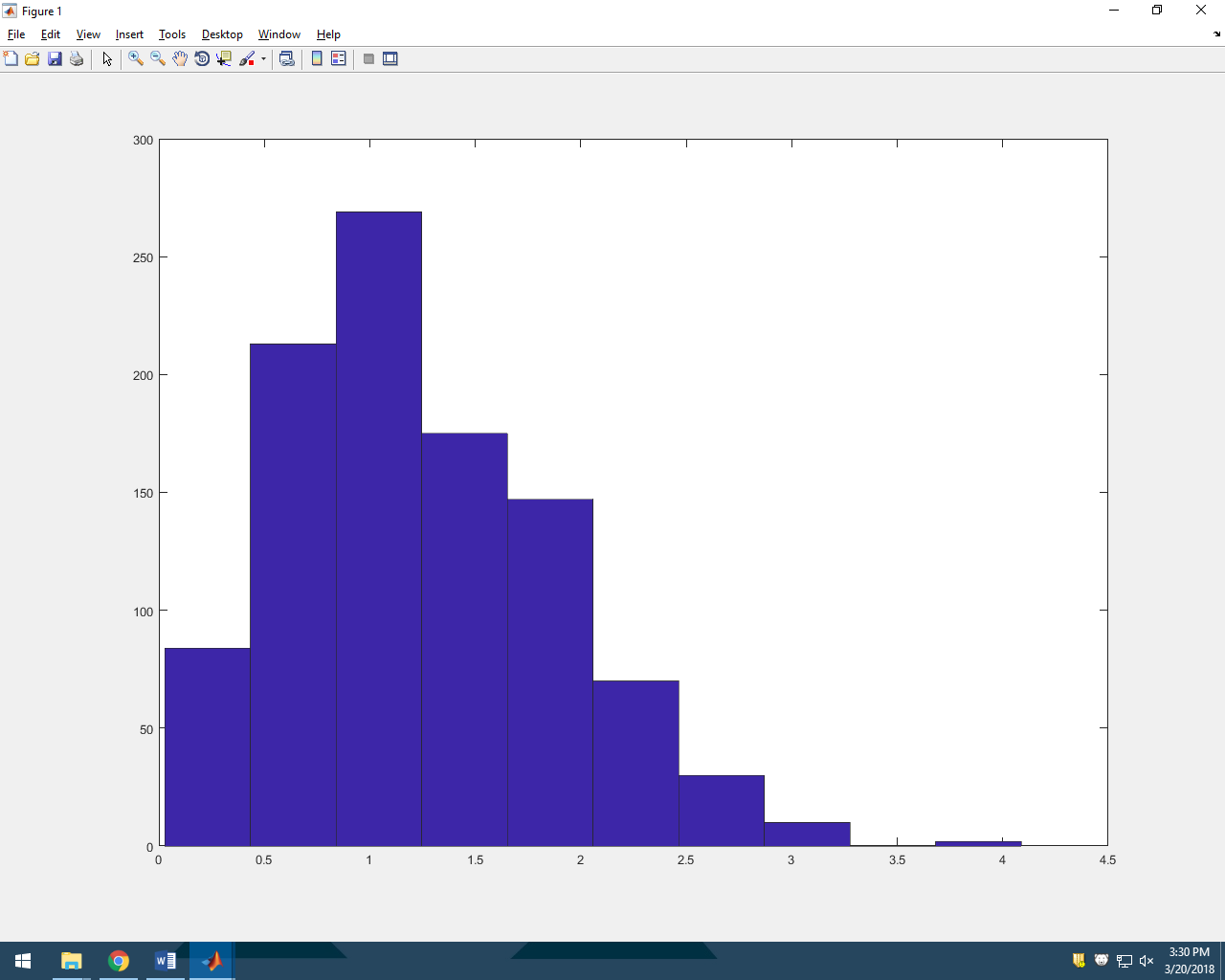








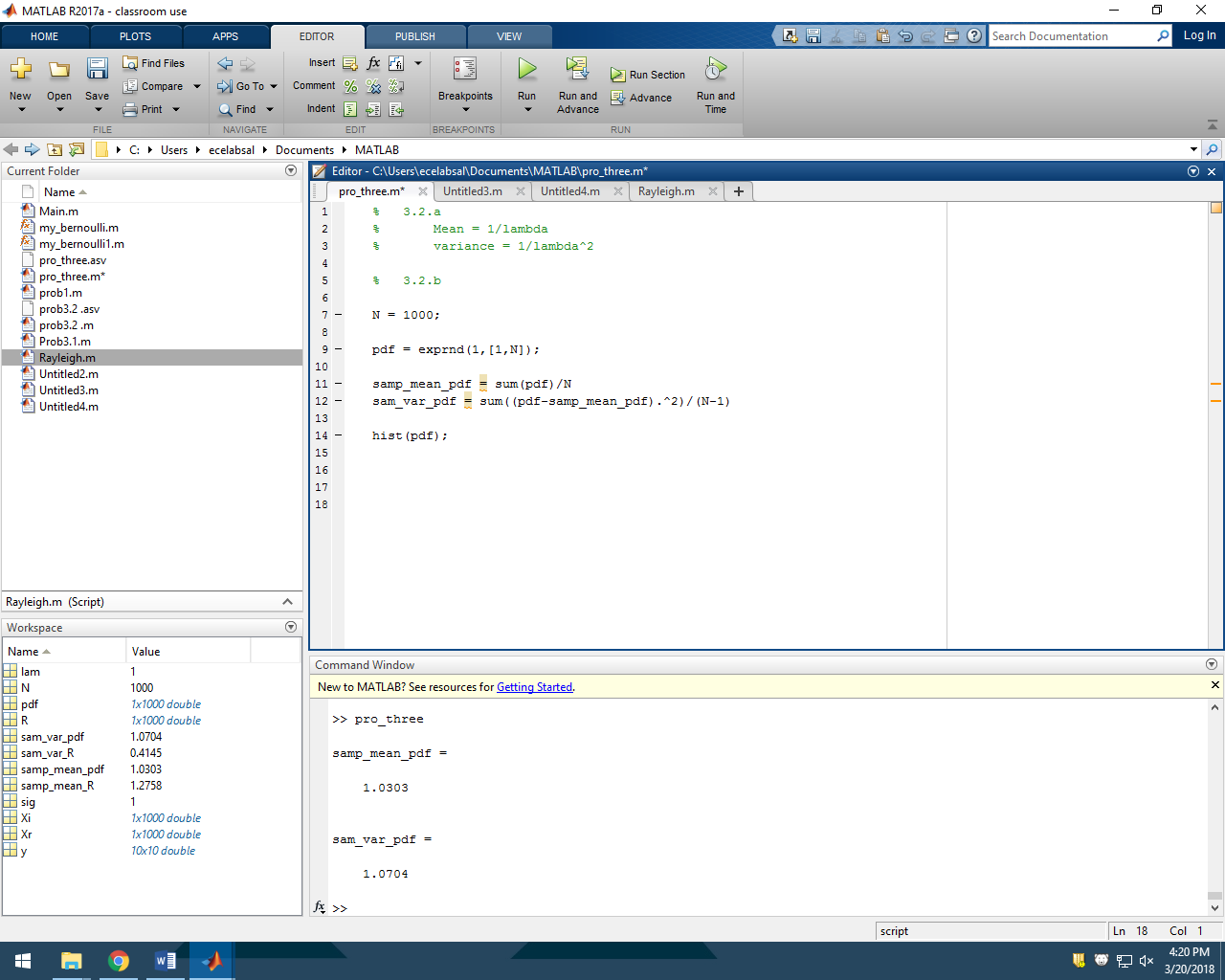
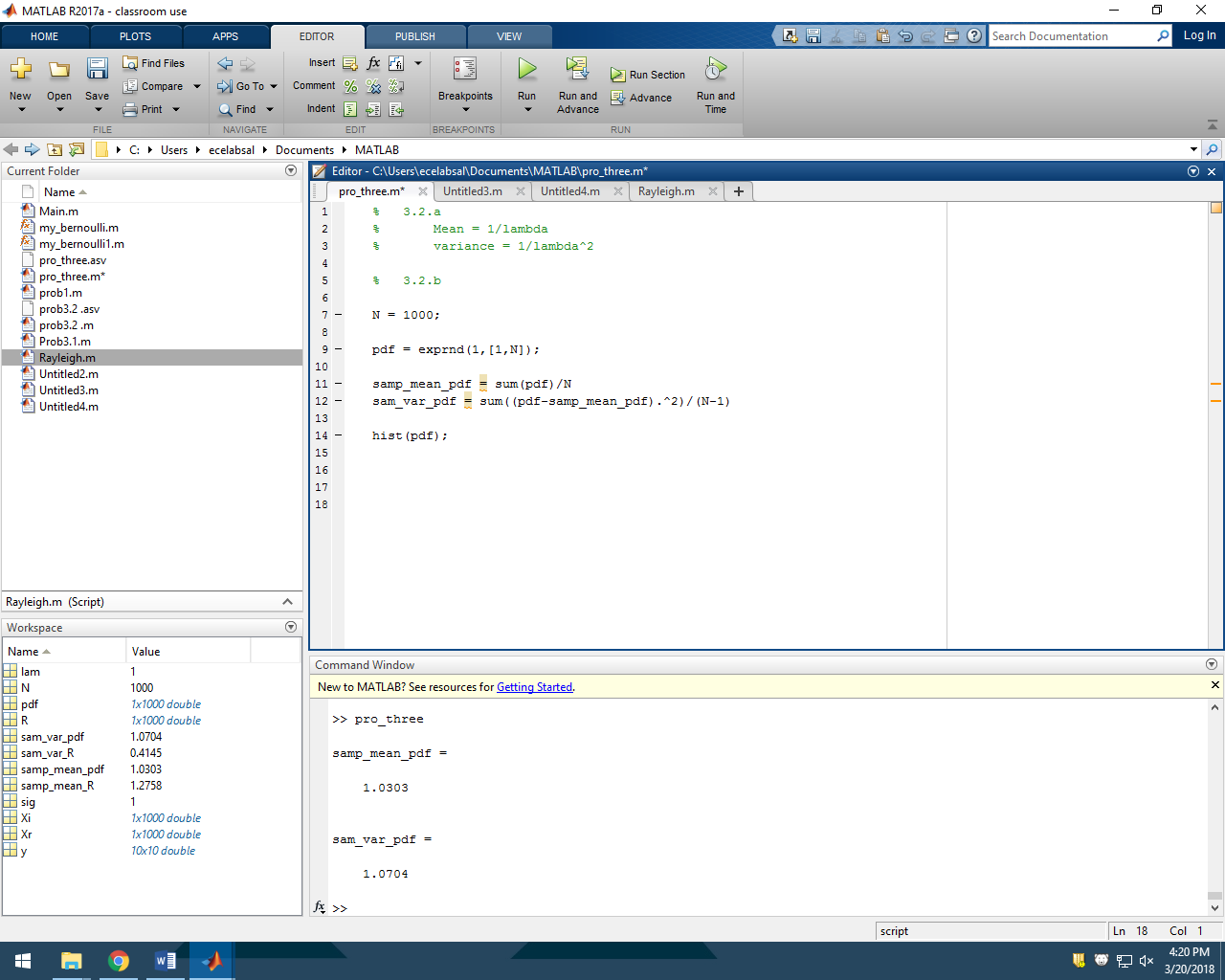


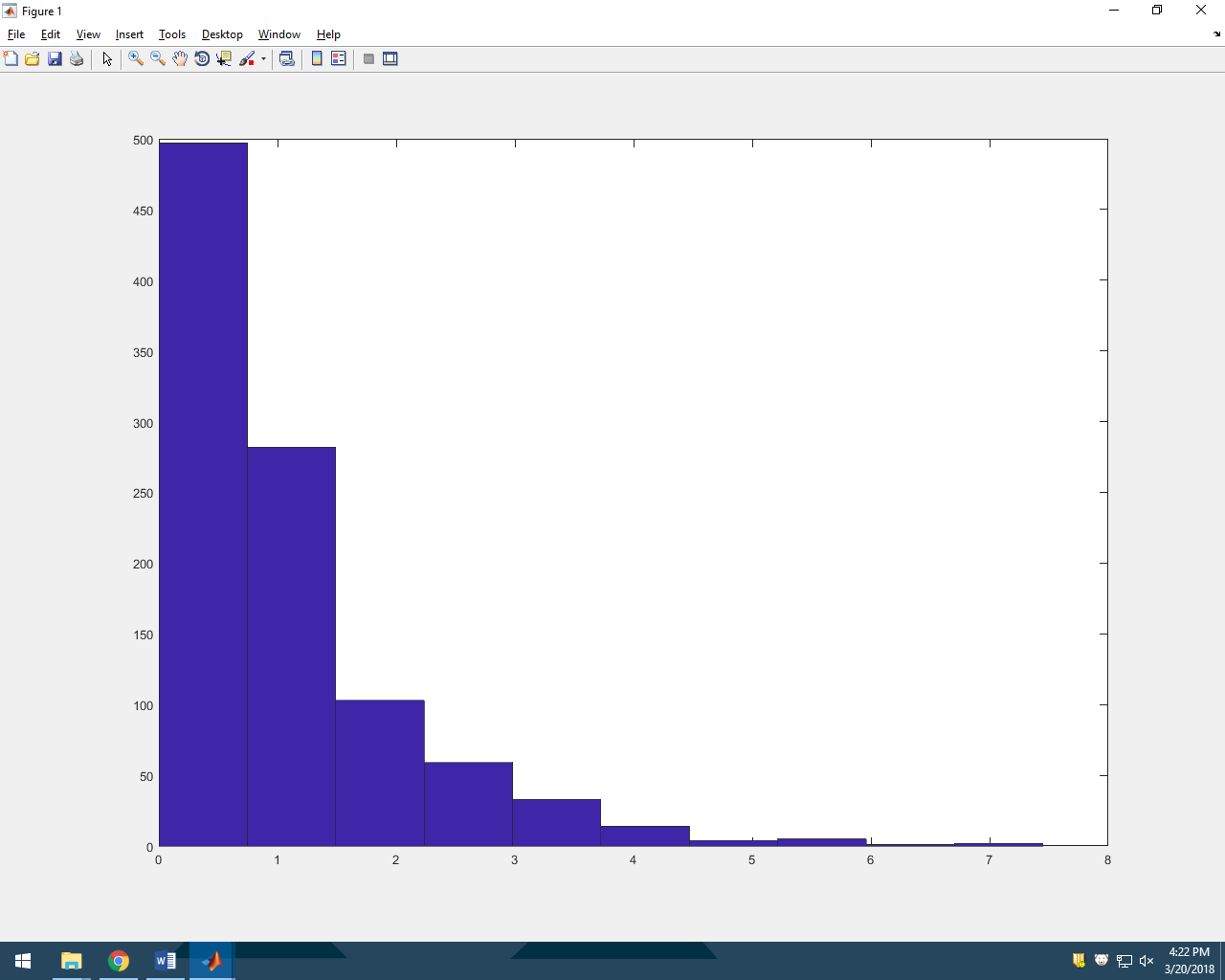


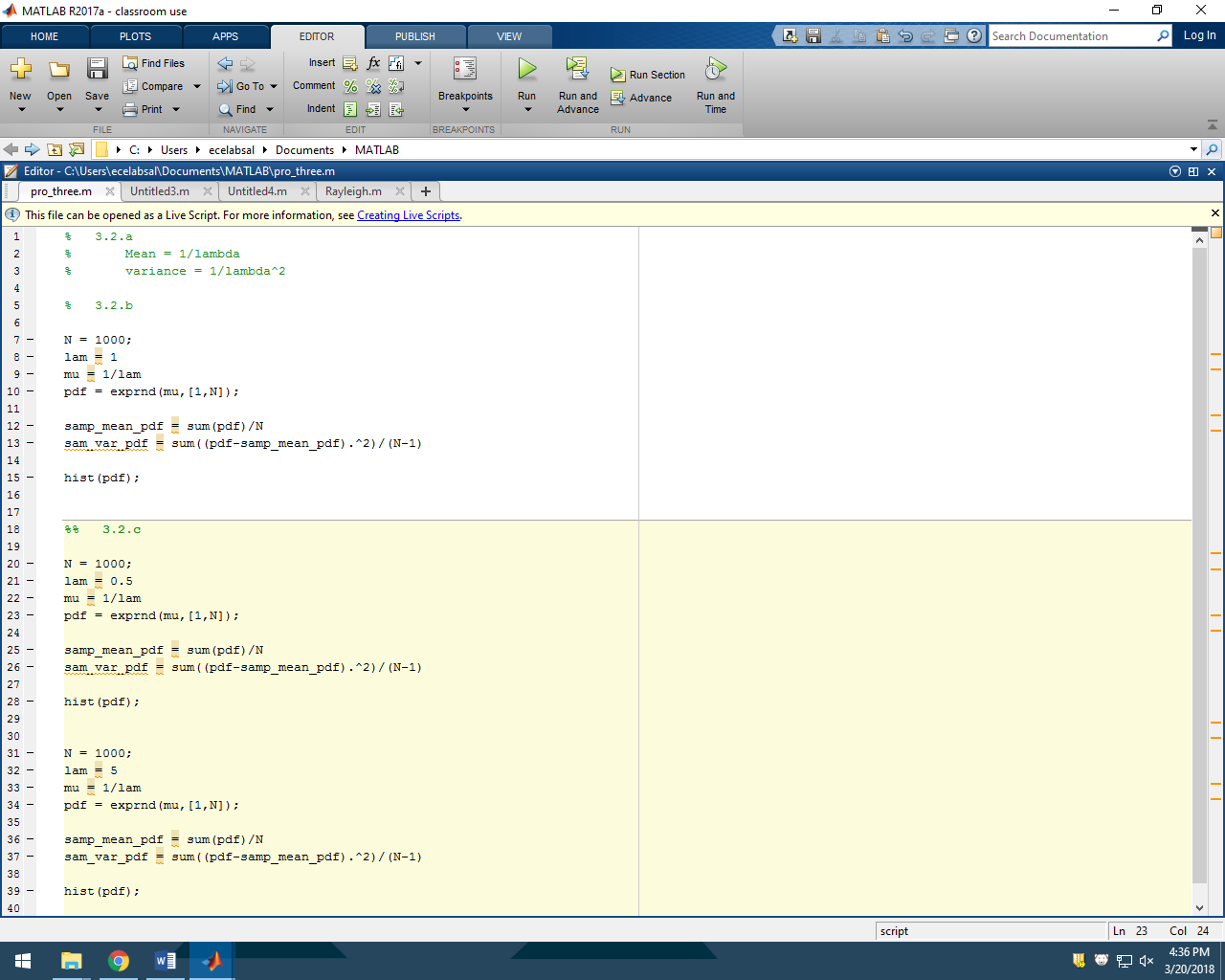
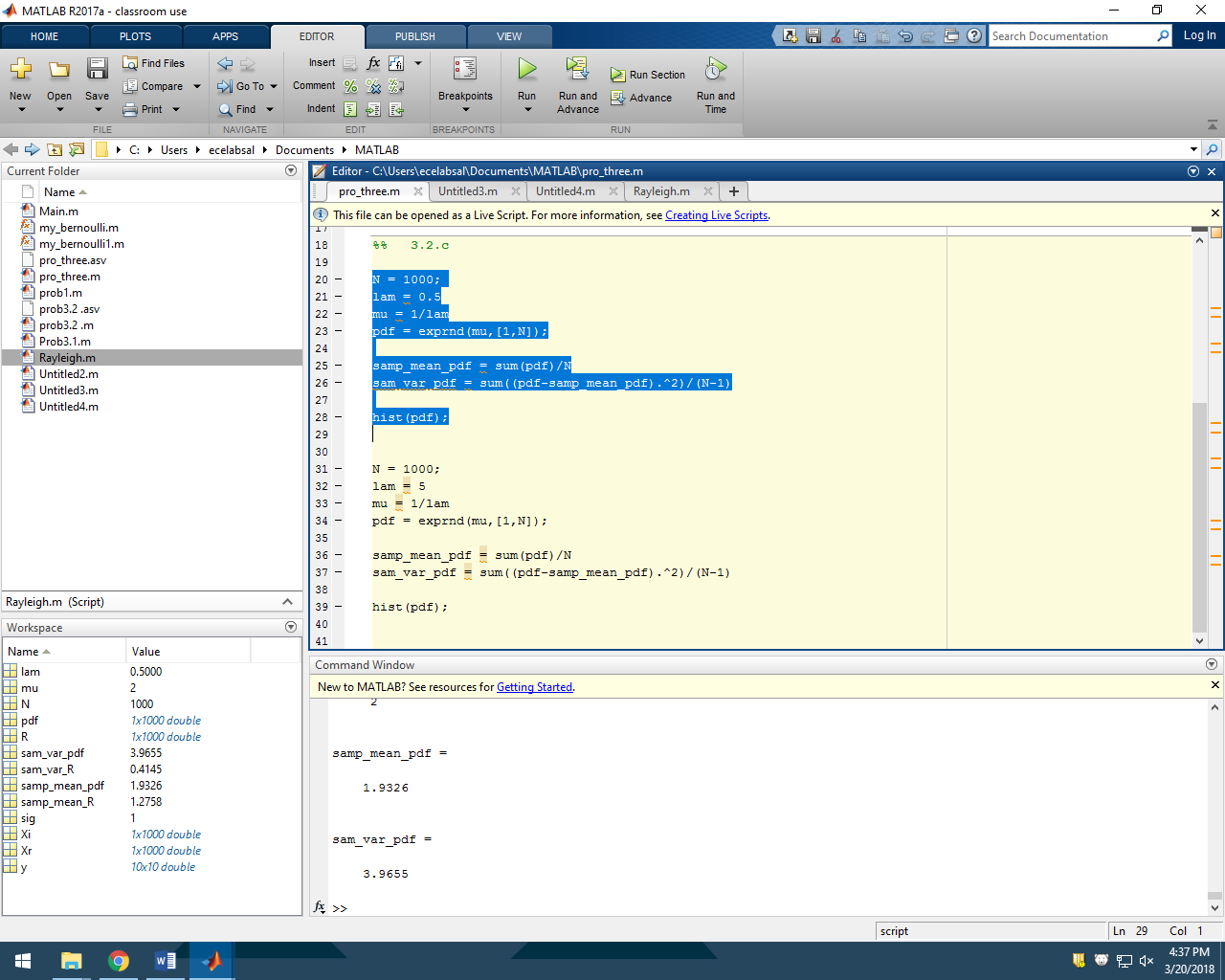
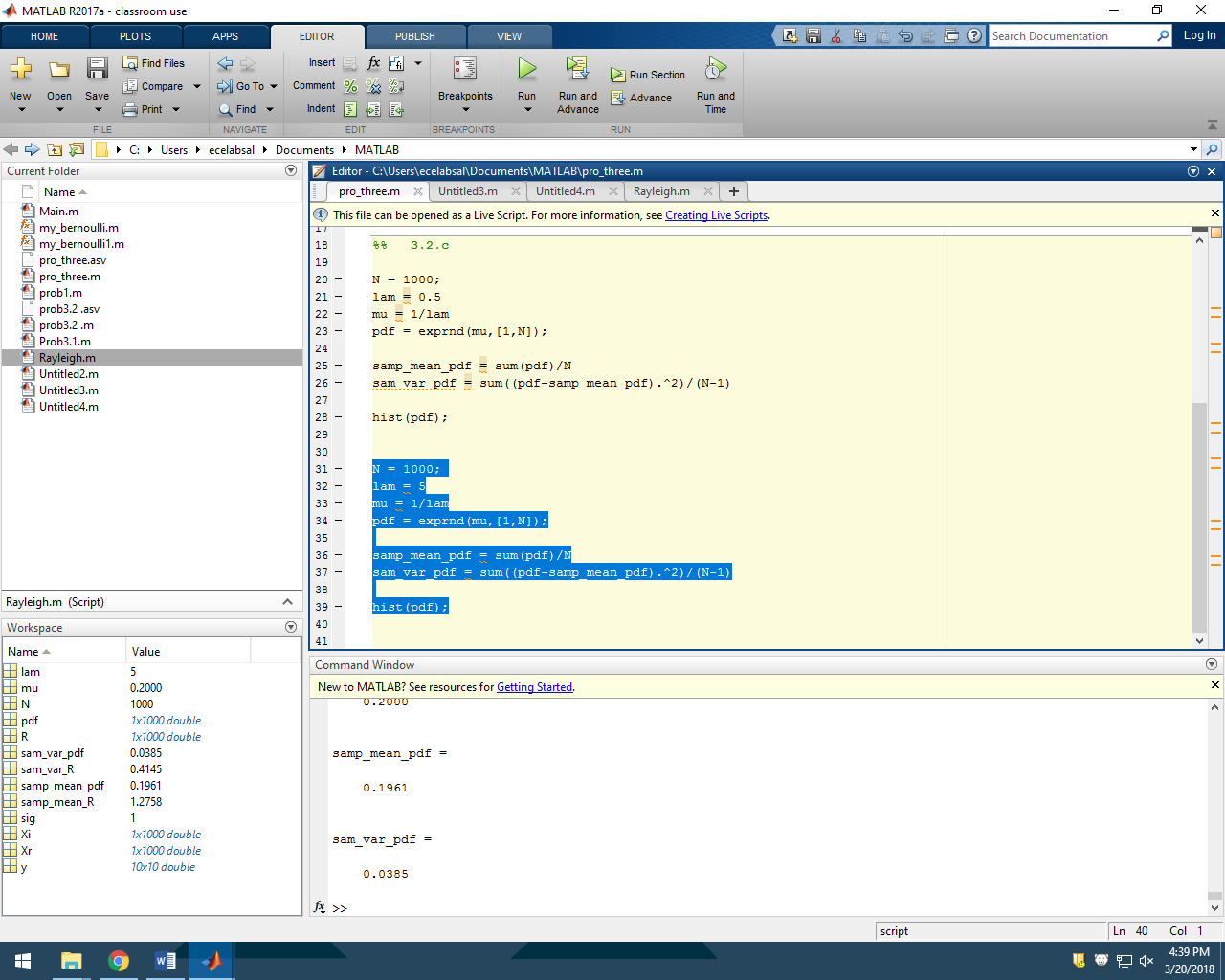
3.1.e

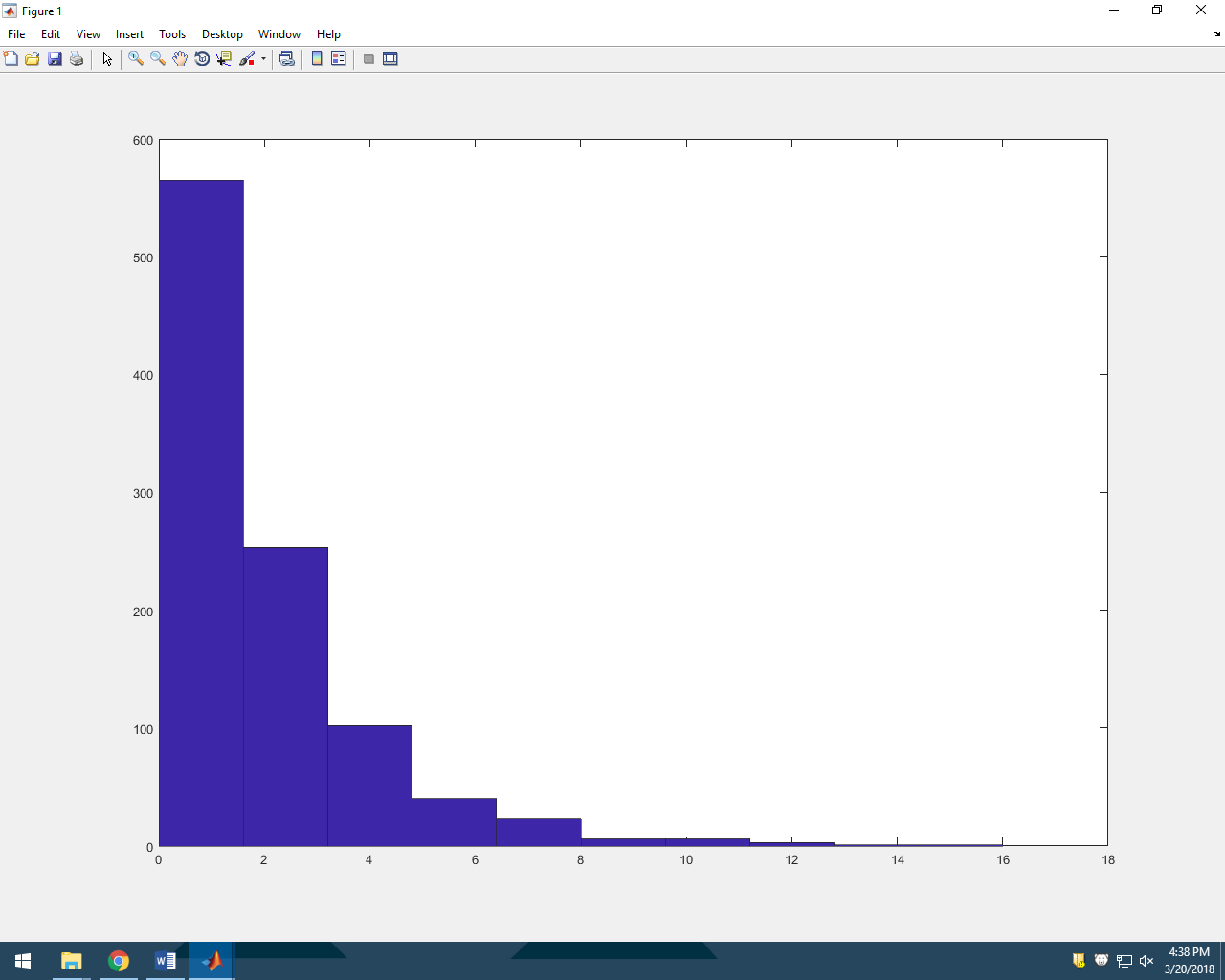
Rayleigh function and Rayleigh distribution from Gaussian samples gives almost same result.

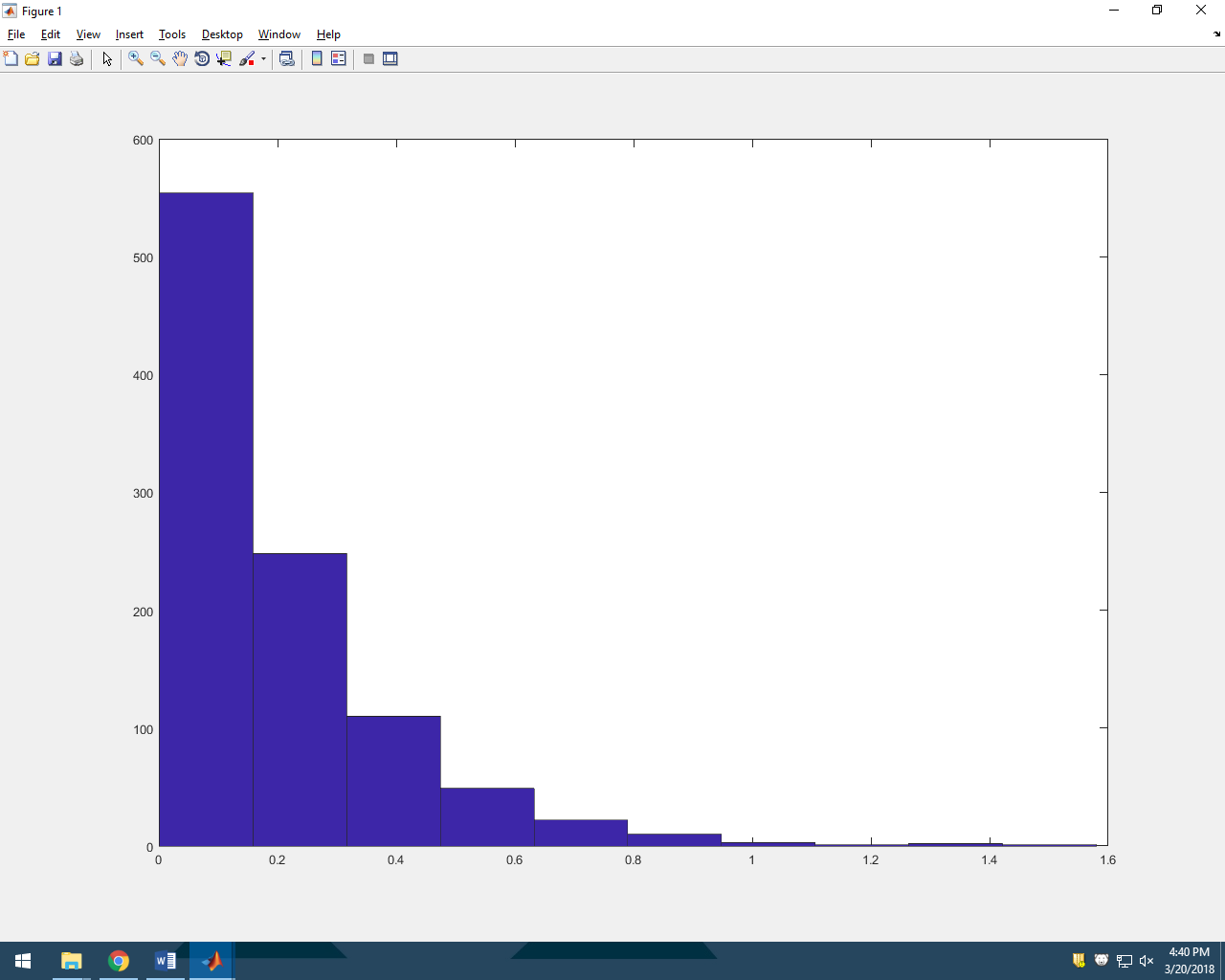
Sample Mean and variance also lies in the same range.





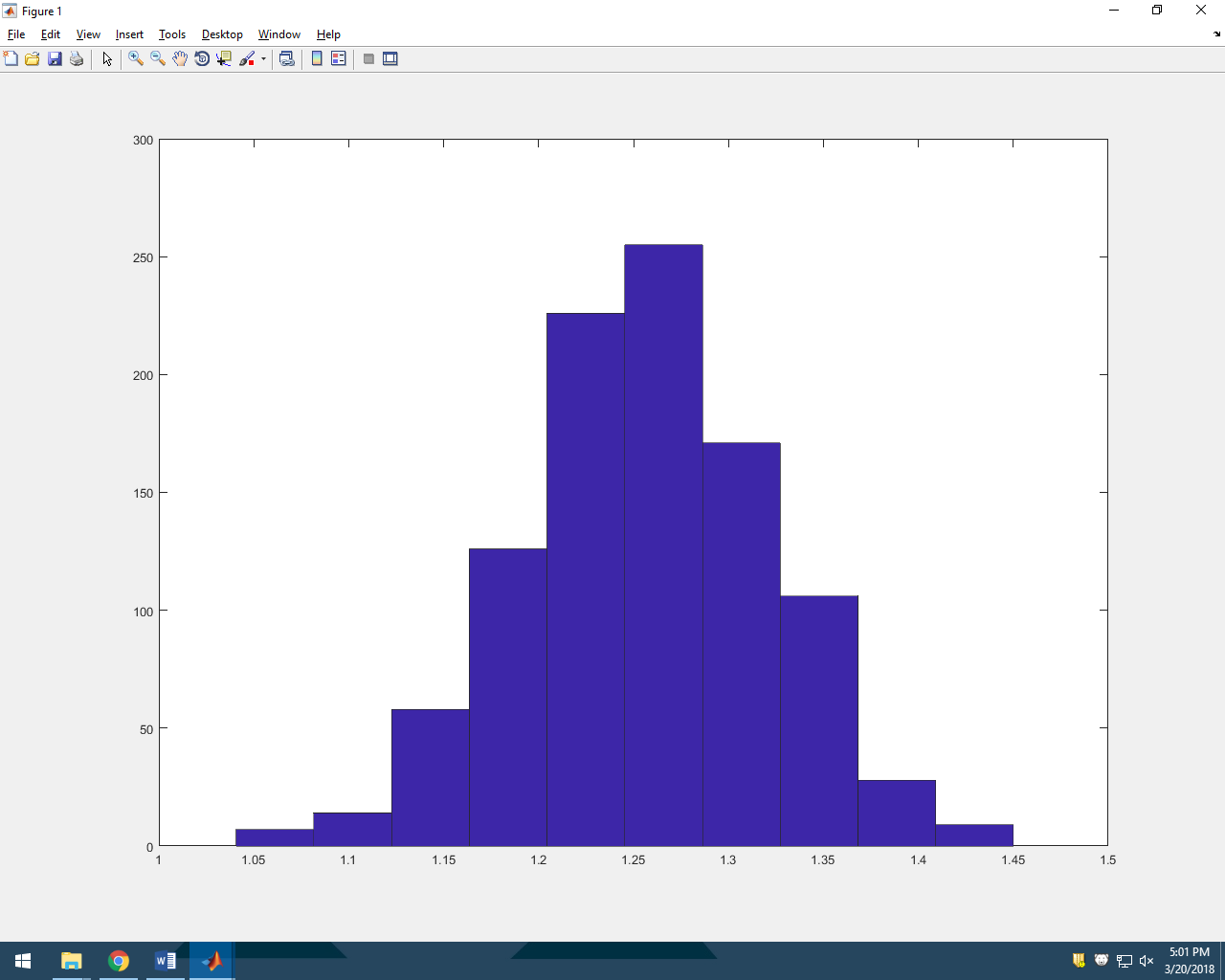
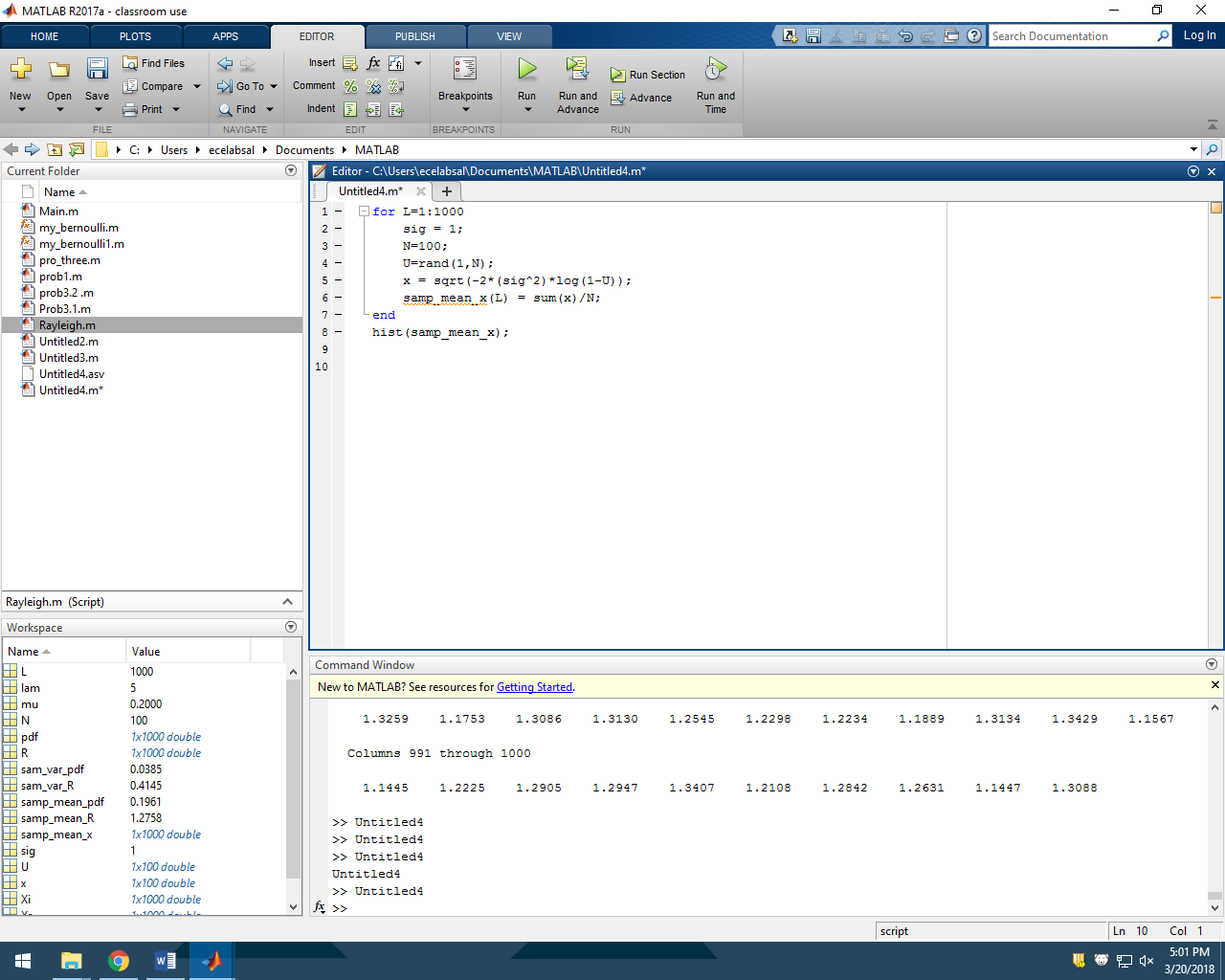




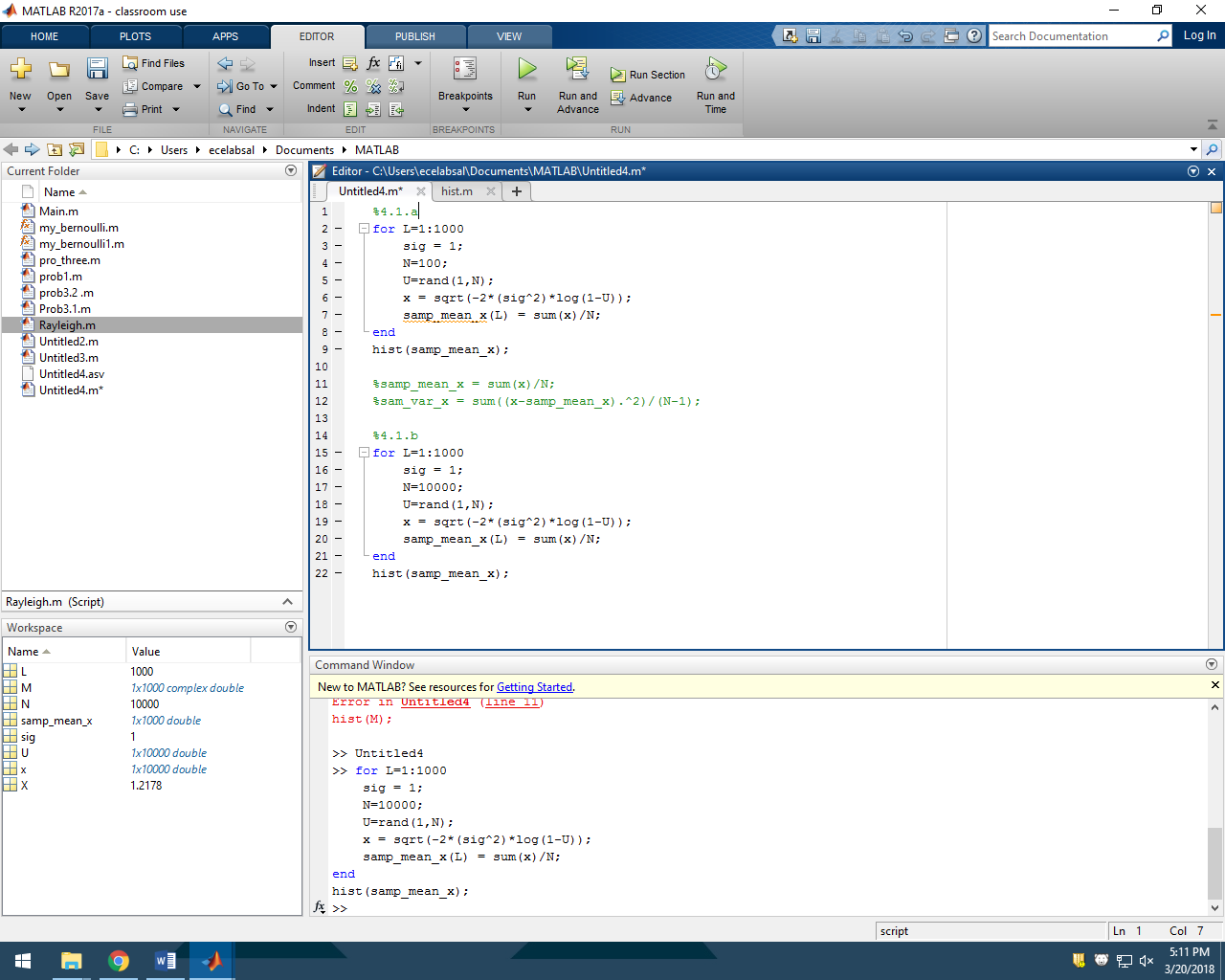


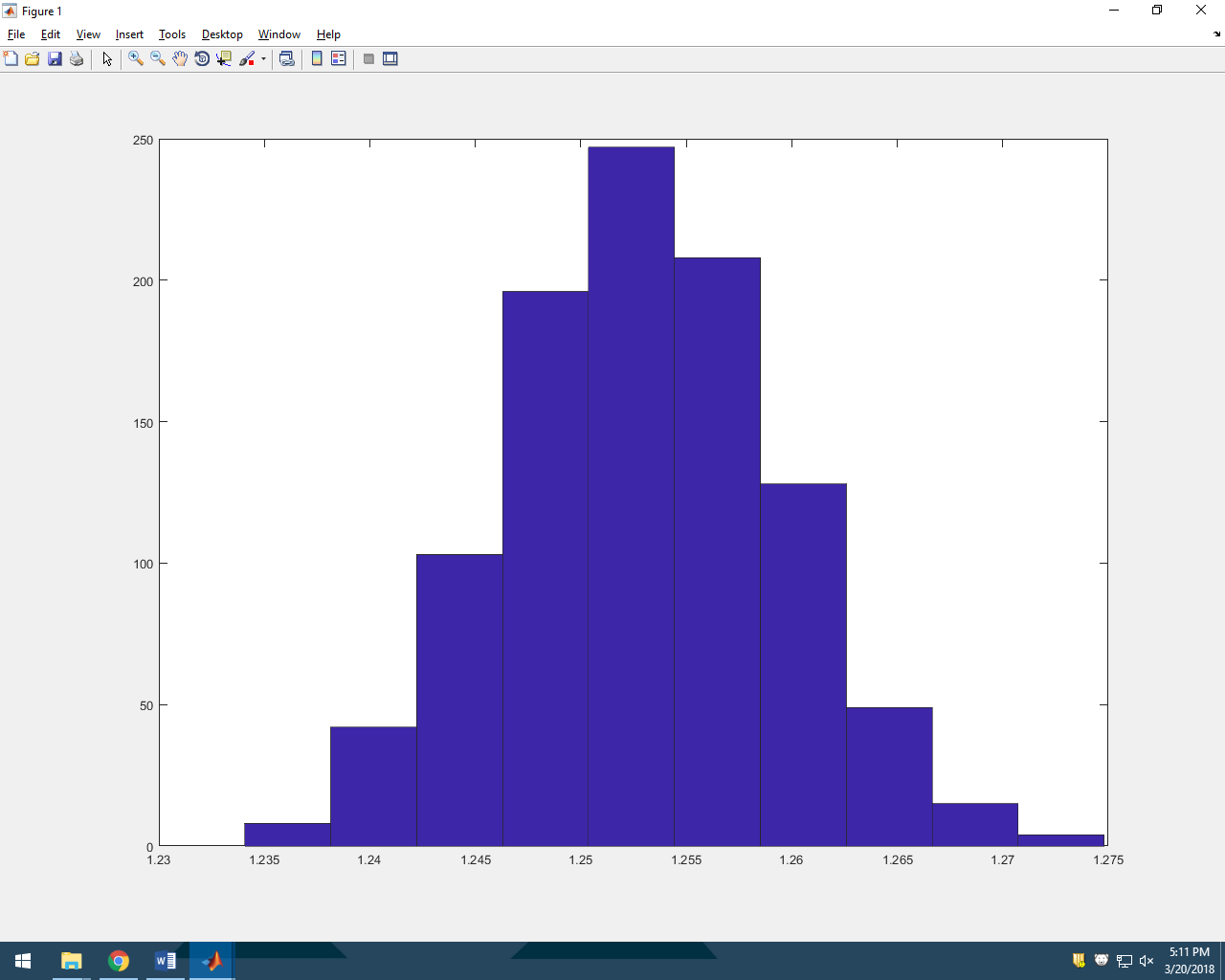
3.2.d: More the λ value small the variance and mean.

4.1.a.



Yes, from the histogram, it is well approximated to Gaussian pdf.





Yes, I think this can also be well approximated to Gaussian pdf.

When compared with the above one this can be approximated more.

