Create a Gaussian Random Number Generator in Excel

This model will have two inputs: *s* and *m*. Use the inverse transform method to create a

series of normal variables with a mean of *m* and standard deviation of *s*. Use the Histogram

tool in the Data Analysis toolbox of Excel to create a density function for one static example

*or* use the Excel array function “**FREQUENCY**(data array, bin array)” and **CTRL-SHIFTENTER** to create a density function for dynamic data.

* Make sure to normalize the histogram-generated density function.
* Choose the bins and bin sizes carefully (try different ranges). They will depend

on the mean and *s*. Start by getting the MIN and MAX points of the generated

random numbers and then divide the space in between them into a certain

number of bins (say, 40). See equations.

* Generate at least 65,000 random numbers.
* Calculate the mean, standard deviation, and kurtosis of the generated random

numbers. Compare them to the inputs. Did the process converge?