

Assignment 1 Example

Problem 1:

The first five numbers in your Gaussian data set are:

-12.89	-5.67	-2.60	-1.54	-0.31
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Sample mean = 8.114650

Sample standard deviation = 4.812293

The five number summary is:

-12.89	5.36	7.815	11.320	20.770
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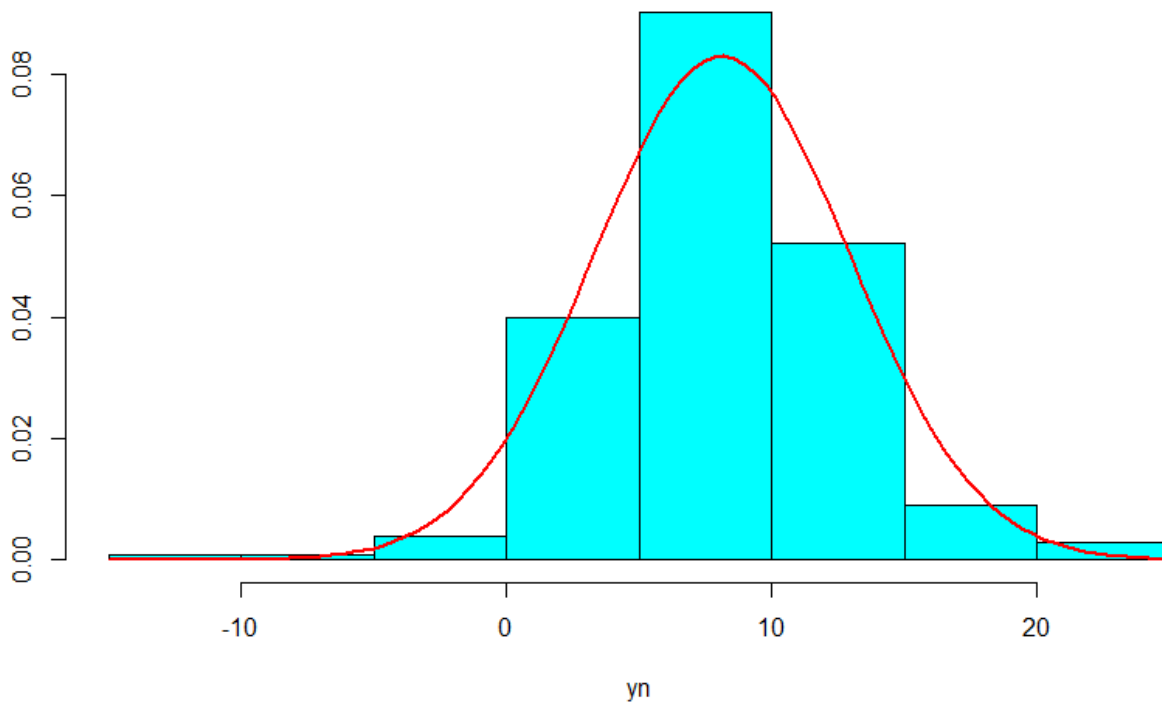
Sample median = 7.815

Range = $20.770 - (-12.89) = 33.66$

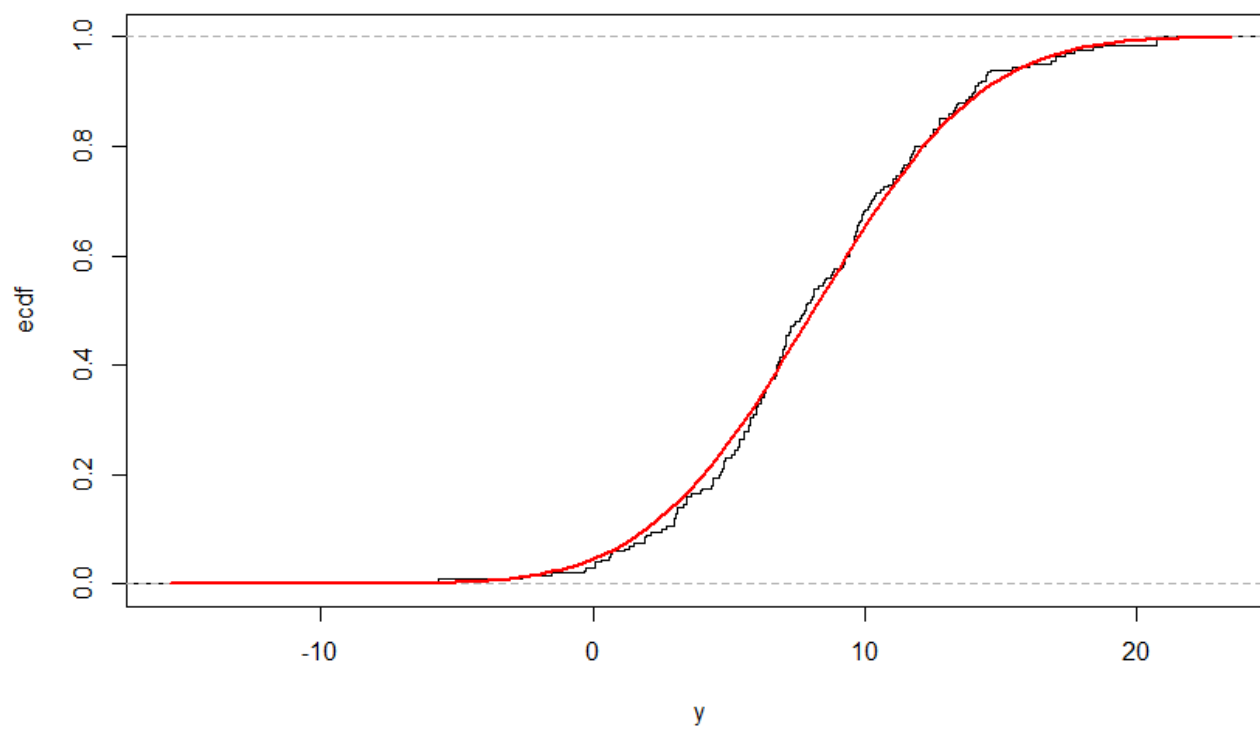
IQR = $11.32 - 5.36 = 5.96$

Sample skewness = -0.2029152

Relative Frequency Histogram of Data



Sample kurtosis = 4.486426

Empirical and Gaussian C.D.F.'s

Problem 2: The first five numbers in your Exponential data set are:

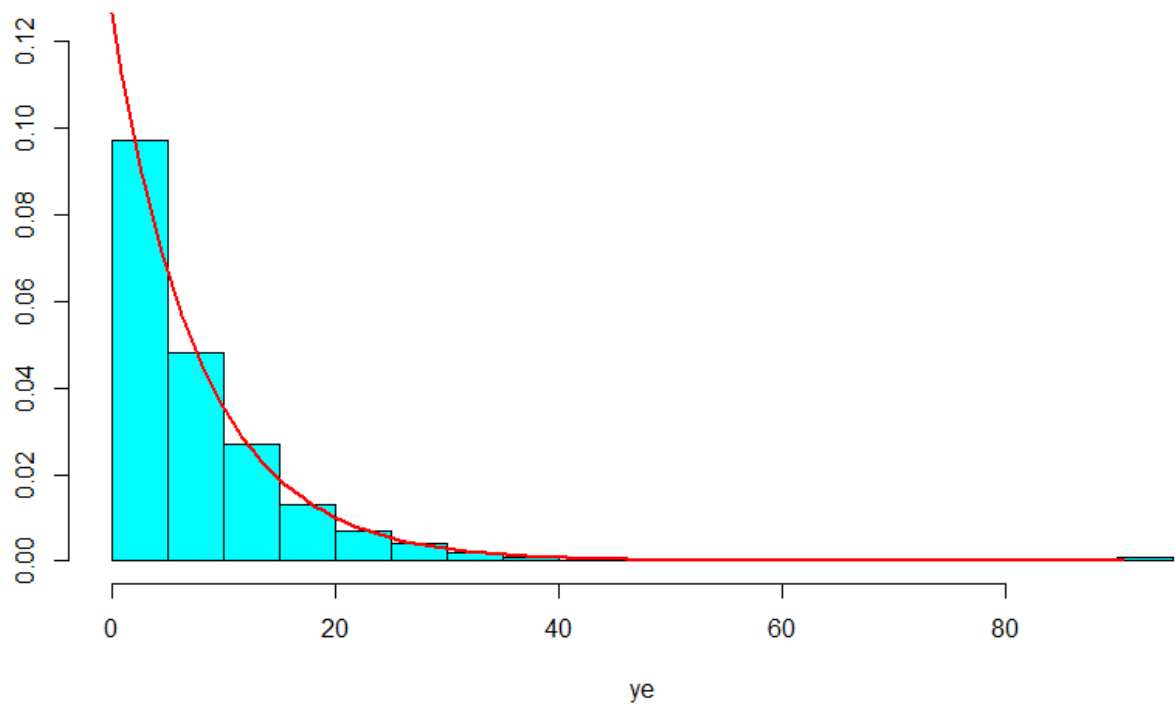
0.01	0.13	0.18	0.24	0.26
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Sample mean = 7.916900**Sample standard deviation = 9.249768****The five number summary is:**

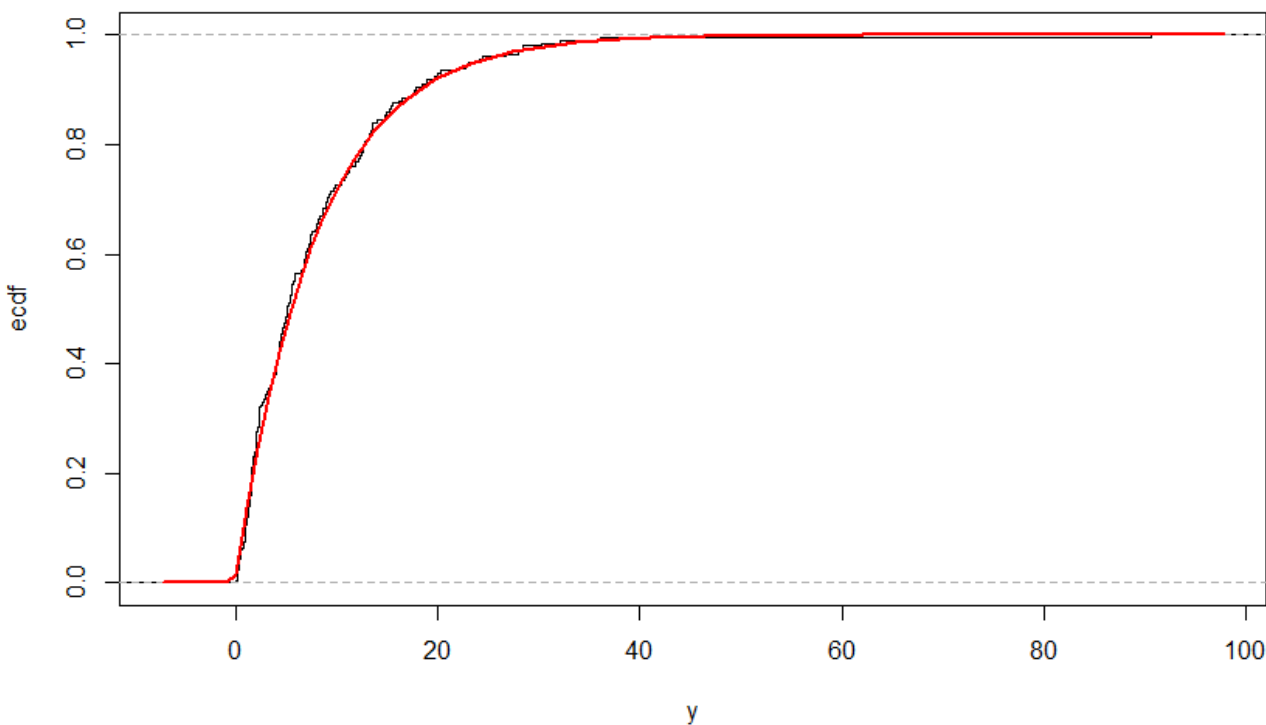
0.010	2.070	5.095	11.120	90.520
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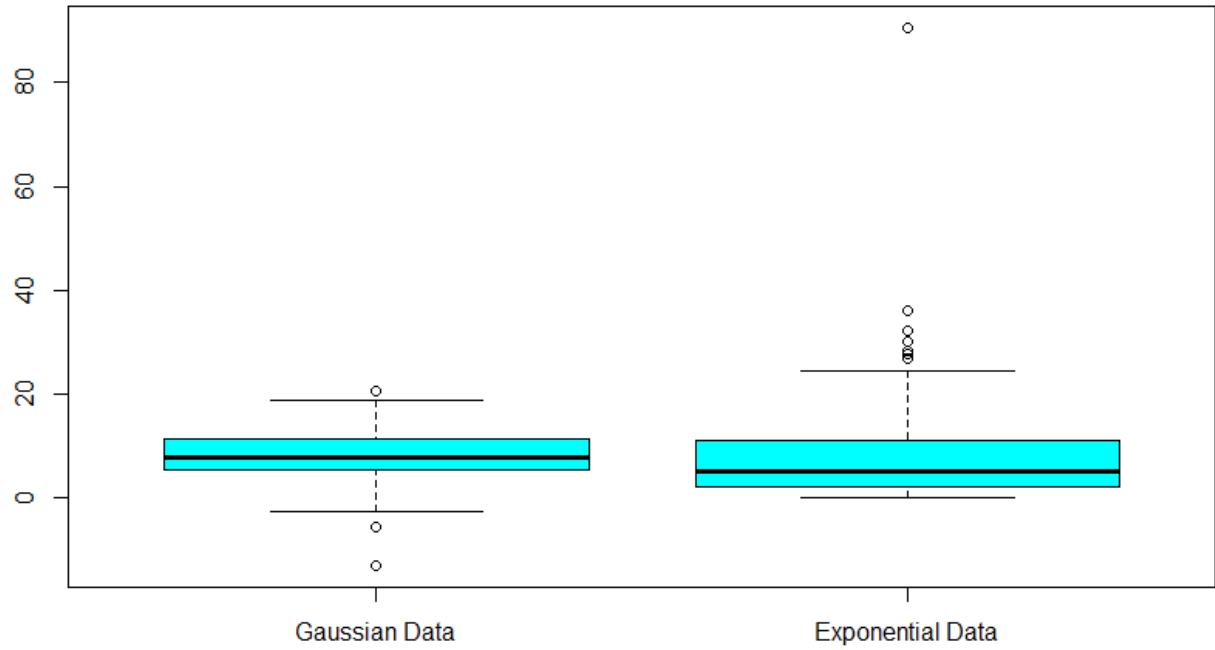
Sample median = 5.095**Range = 90.520 – 0.010 = 90.51****IQR = 11.120 – 2.070 = 9.05****Sample skewness = 4.198336****Sample kurtosis = 33.82573**

Relative Frequency Histogram of Data



Empirical and Exponential C.D.F.'s





Problem 3:**Alpha = 8.11465****Beta = 7.9169****The first five pairs of numbers in your bivariate data set are:**

x	y
1.1	24.1
1.9	14.9
8.5	64.1
15.5	136.9
19.6	156.0

Sample Correlation = 0.9365159**Scatterplot of Data**