Personal Ethics Statement

Individual Assignment: #4, part 2

By signing this Statement, I am attesting to the fact that I have reviewed the entirety of my attached work and that I have applied all the appropriate rules of quotation and referencing in use at the Telfer School of Management at the University of Ottawa, as well as adhered to the fraud policies outlined in the Academic Regulations in the University's Undergraduate Studies Calendar.

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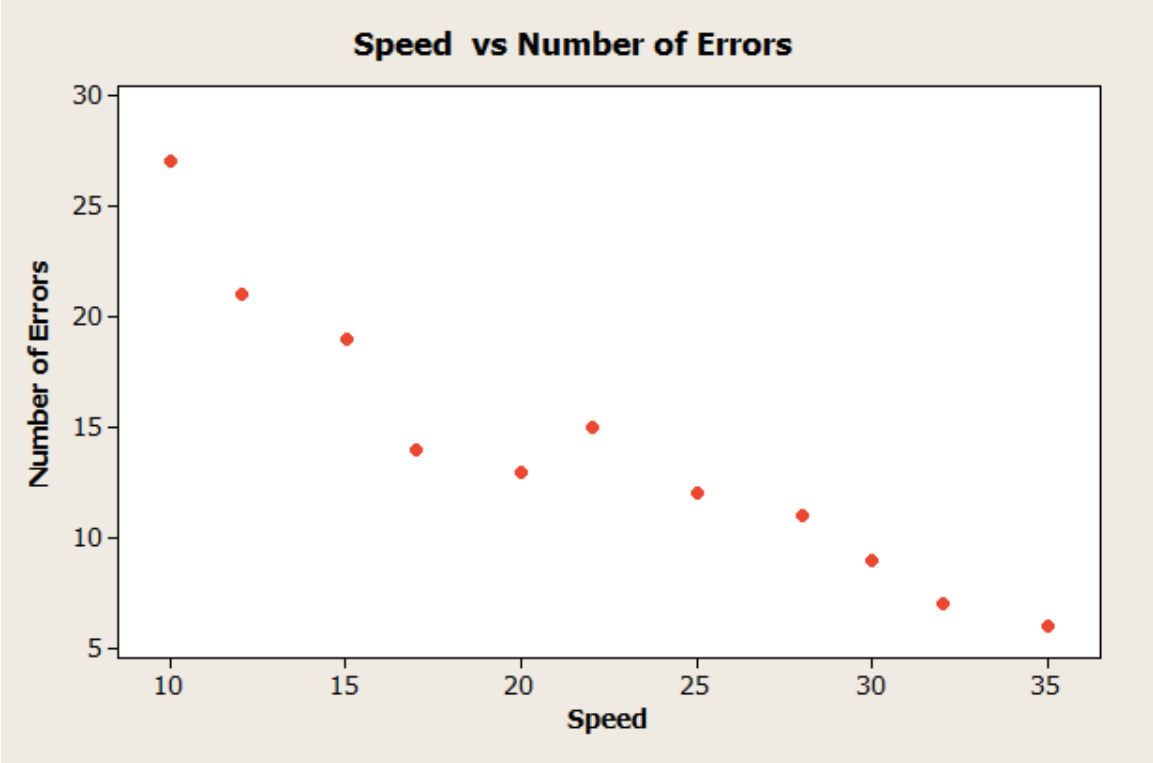
Question #1

a)



b) They have a strong negative correlation

c)

Correlations: Speed, Number of Errors

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Pearson correlation of Speed and Number of Errors = -0.945
P-Value = 0.000
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r^2= 0.8938
r= -0.945

The managements team concerns do not seem justified because in fact, the faster the conveyor belt goes, the less errors are found.

Question #2.

a) $\hat{p}$= 41/100= 0.41 p= 0.52 q= 0.48

b) z= 0.41-0.52/$\sqrt{}$0.52x0.48/100= -0.11/0.05= -2.2
z-score of -2.2= 0.0139

Question #3.

a) μ= 25ng SD= 12ng n= 100

Normally distributed population= normally distributed sample

b) z= $\bar{x}$-μ/σ(x)/$\sqrt{}$n

$\bar{x}$= 29 μ= 25

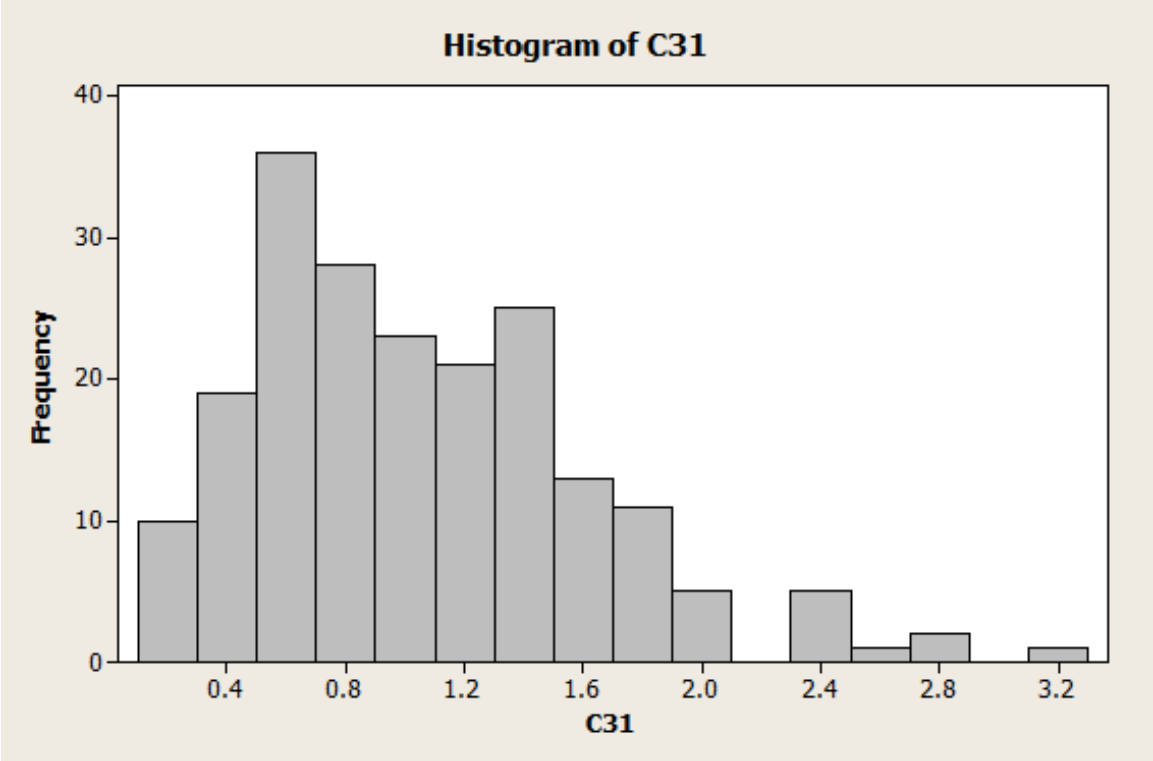
z= 29-25/12/$\sqrt{}$100 = 4/12/$\sqrt{}$100= 4/1.2

=3.33 z-score= 0.9996 1-0.9996= 0.0004

c) z= 29-25/10/$\sqrt{}$25

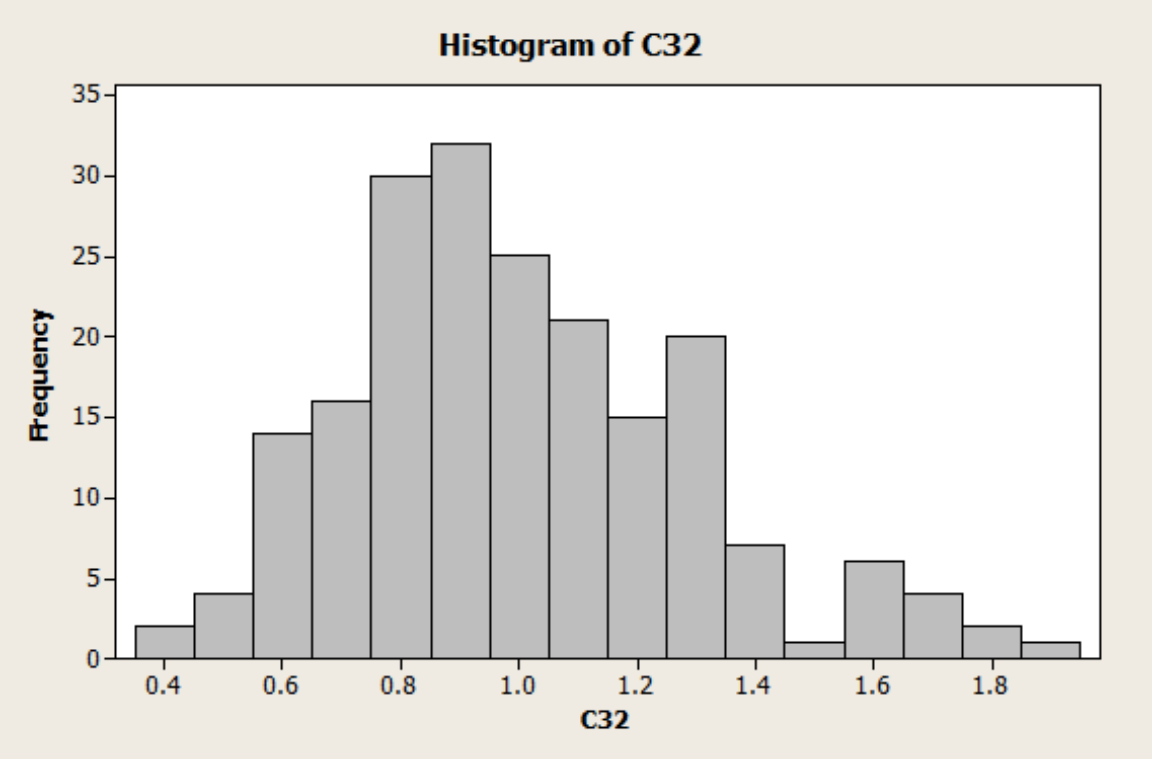
= 4/10/$\sqrt{}$25 = 4/2= 2
z-score of 2= 0.9772 1-0.9772= 0.228

Question #4. a) i)



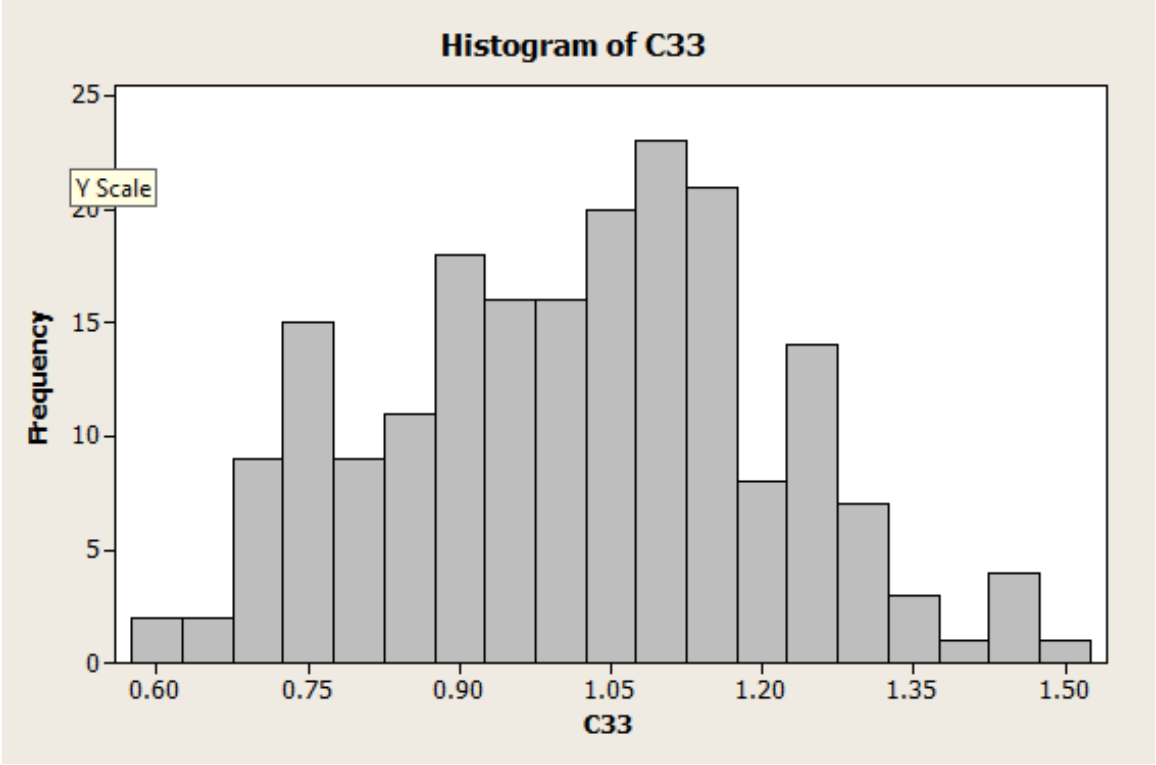
This histogram does not look normally distributed. It is skewed to the left.

ii).



This histogram seems slightly more normally distributed and is not skewed as much as the one depicted in 4a) i).

iii)



This histogram seems much more normally distributed when compared to the other two and it does not seem to be skewed very much at all.

I noticed that as the histograms have more and more data in then, they become much more uniform in bar height and placement.

4. b) This procedure proves that as more data is put into tables, the more precise the tables will become.