

HW-9

MS -Business Intelligence & Analytics

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BIA – 654 A

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Ethics Statement

I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination. I further pledge that I have not copied any material from a book, article, the Internet or any other source except where I have expressly cited the source.

Signature Mohit Ravi Ghatikar

Date: 04/19/2016

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a)

If we take any 2 factors, say A and B. The number of runs for its factor level combinations are:

(+) (+) = 5 runs

(+) (-) = 5 runs

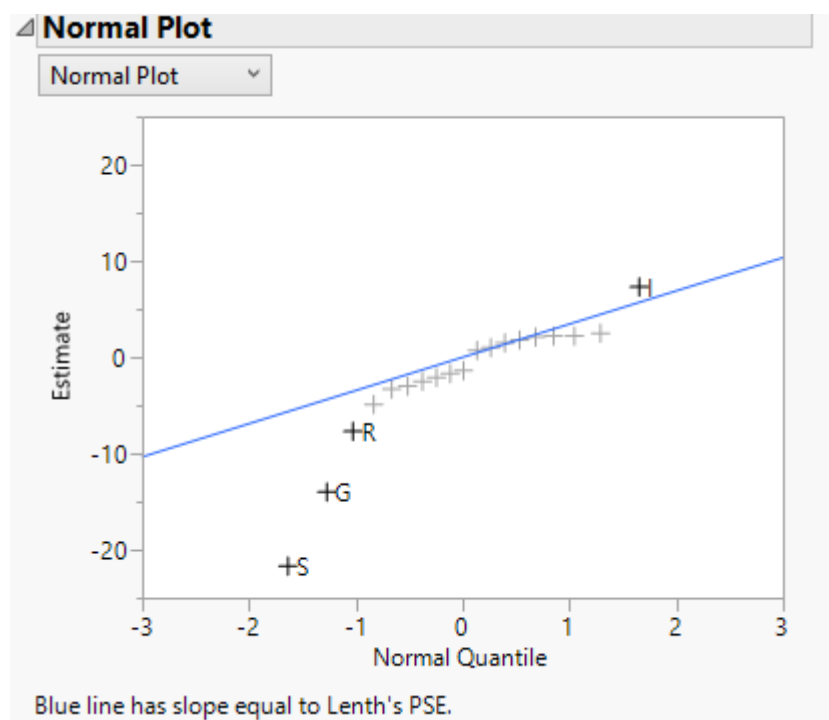
(-) (+) = 5 runs

(-) (-) = 5 runs

Thus we can see that the dot product of A and B are zero.

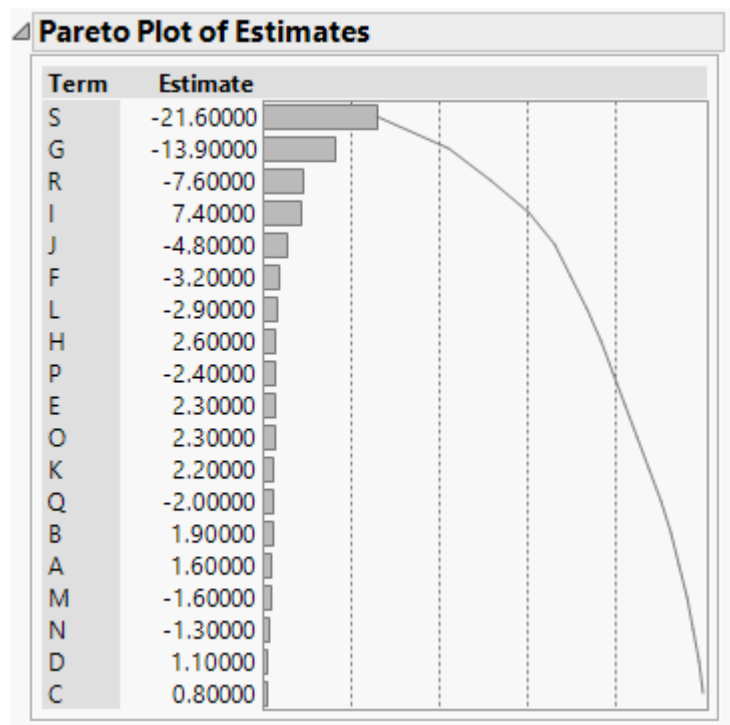
b)

1)



From the Normal probability plot, we can see that factors R, G, S and I are significant.

2)



3)

Standard error was calculated as 0.000715864.

The 95% confidence intervals are given below:

Variable	Main Factor Effect	CI - Lower	CI - Upper	Significant / Not Significant
A	0.064	-0.07631	0.204309	Not significant
B	0.076	-0.06431	0.216309	Not significant
C	0.032	-0.10831	0.172309	Not significant
D	0.044	-0.09631	0.184309	Not significant
E	0.092	-0.04831	0.232309	Not significant
F	-0.128	-0.26831	0.012309	Not significant
G	-0.556	-0.69631	-0.41569	Significant
H	0.104	-0.03631	0.244309	Not significant
I	0.296	0.155691	0.436309	Significant
J	-0.192	-0.33231	-0.05169	Significant
K	0.088	-0.05231	0.228309	Not significant
L	-0.116	-0.25631	0.024309	Not significant
M	-0.064	-0.20431	0.076309	Not significant
N	-0.052	-0.19231	0.088309	Not significant
O	0.092	-0.04831	0.232309	Not significant
P	-0.096	-0.23631	0.044309	Not significant
Q	-0.08	-0.22031	0.060309	Not significant
R	-0.304	-0.44431	-0.16369	Significant
S	-0.864	-1.00431	-0.72369	Significant

Since Factors G, I, J, R and S do not contain Zero. We can conclude that they are significant with 95% confidence.