Q2(14 points) For the following data.

x	y
2.29	-16.55
2.79	-19.62
2.42	-17.25
1.74	-12.80
1.35	-8.00
2.87	-19.75
1.03	-6.83
1.79	-12.02
1.68	-11.91
2.74	-19.93
0.09	-1.33
1.70	-20.00
4.00	-28.00
4.30	-15.00

Apply SAS to work on the following, code and output and explanation all requested.

1. (2 points) plot the scatter plot y vs x, and specify suspect outliers and/or influential points on the plot.
2. (2 points) detect any outliers with respect to x using the leverage value.
3. (2 points) detect any outliers with respect to y using the R student. Use the criterion $t_{0.025}^{(n-k-1)}$.
4. (1 points) Is there any points, x_i, which would substantially change the point prediction $\hat{y}_i$ if it is removed from the data set? Use the larger criterion 2.
5. (3 points) detect any influential points using Cook's distance measure.
6. (1 points) Is there any points which would substantially change the β_1 if it is removed from the data set? Use the larger criterion 2.
7. (3 points) Is there any points which would significantly damage or enhance the precision of the least square estimates?