

```
/*Q2.5*/
data d;
input x y;
cards;
8.3 1.3
3.4 18.3
4.5 14.4
6.0 9.0
6.1 9.5
6.4 7.9
5.8 10.2
4.8 13.9
7.1 5.5
9.1 -1.1
8.7 0.0
5.0 12.9
8.2 2.2
3.6 17.6
8.9 -0.2
5.7 10.7
6.1 9.4
5.7 10.5
4.2 15.1
4.2 15.9
;
proc reg data = d;
model y=x /alpha=0.01 clb;
run;

/* Test statistic = -97.42 and p-value < 0.0001.

Interpretation of t-test for slope:

Since the p-value < 0.0001 which is less than alpha = 0.01, we reject the null hypothesis and accept the alternative hypothesis, that is, B1 is not equal to 0. Therefore, x and y have a significant linear relationship. */
```