Correlation & Regression (Part 3)

CREDIT: The questions on this document were written by Erik Packard, PhD, Associate Professor of Mathematics at Colorado Mesa University.

- Problem 4

  - Below are data on 23 circular plots of the same size. For each plot, the number of cottonwood stumps cut down by beavers and the number of beetle larvae clusters are given.

x = Stumps	2	2	1	3	3	4	3	1	2	5	1	3
y = Larvae	10	30	12	24	36	40	43	11	27	56	18	40

x = Stumps	2	1	2	2	1	1	4	1	2	1	4
y = Larvae	25	8	14	21	16	6	54	9	13	14	50

   G) At the 5% significance level, do the data provide good evidence that the population correlation coefficient is positive?

   H) Give a 95% CI for the number of larvae clusters in one area with 4 stumps.

   I) Give a 95% CI for the average number of larvae clusters in all areas with 4 stumps.