

Correlation & Regression (Part 2)

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.

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

$x = \text{Stumps}$	2	1	2	2	1	1	4	1	2	1	4
$y = \text{Larvae}$	25	8	14	21	16	6	54	9	13	14	50

D) Predict the number of larvae clusters in an area with 4 stumps.

E) Interpret the slope of the least squares line.

F) What percent of the differences in larvae clusters is due to the regression line on stumps?