

**Correlation & Regression (Part 1)**

**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

- A) Make a scatterplot of the data.
- B) Find the value of  $r$ .
- C) Find the least squares line and graph it on the scatterplot.