

Practice Problem

Problem 11.7:

An equal number of families from eight different cities of various sizes were asked how much money they spend for food, clothing, and housing per year. The city sizes and average family responses are summarized below. (City size in 1000s, expenditure in \$1000s.)

City Size (x)	30	50	75	100	150	200	175	120
Expenditure (y)	65	77	79	80	82	90	84	81

We know that $SS_{xx} = 25300$, $SS_{yy} = 355.50$, $SS_{xy} = 2670.04$ and $SSE = 73.77$.

Compute r and r^2 . Interpret the results.