

Lesson 12.5 - Regression Line of y on x

Finding the Regression Line (Line of Best Fit)

1. Press STAT, EDIT.
2. Type the x-values in L1 and y-values in L2.
3. Press STAT, go over to CALC.
4. SELECT LinReg (ax+b).

Example

At a local garage, Pim collected data on cars with 1.4L engines. For cars in his sample that are of the same make and model, he looked at the relationship between the age of the car and its value. He expects a negative correlation, as older cars generally cost less than newer ones.

Age of car (years)	3	5.5	4	2	6	1.5
Value of car (€)	8850	6500	7995	9150	5495	9950

Help Pim find:

(a) the product moment correlation coefficient for his data

$$\rightarrow r = -.984 \quad \text{Strong Negative}$$

(b) the equation of the regression line.

$$y = -909x + 11300$$