ECON107: Lab Assignment1

April 16, 2024

Suppose we are examining two variables, TestScore and STR, where TestScore represents the student-teacher ratios (STR) and one represents test scores.

	1	2	3	4	5	6	7
TestScore	680	640	670	660	630	660.0	635
STR	15	17	19	20	22	23.5	25

Q1. Report means and variances for STR and TestScore.

Q2. Report covariance and correlation coefficient.

Q3. Report estimators of β_0 and β_1 for simple linear regression, $TestScore = \beta_0 + \beta1 STR + u$.

Q4. Calculate the total sum of residuals.

Q5. Create a scatter plot with a fitted line.