

Due: Sept. 19

Based on the data provided (the workspace contains the usual x and y arrays), construct the 95% confidence intervals for the intercept, the slope, and the standard deviation of the ε_i 's.

Plot the 95% ellipse for (jointly) the slope and intercept values.

Plot the data and the fitted line (in a single graph).

Test (individually) the hypotheses that the model's slope and intercept are bigger than zero (using a 1% level of significance).

Compute the coefficient of determination.

Construct a 90% confidence interval for the $\mathbb{E}(y|x = 27)$, and a 90% prediction interval for yet another (random) observation of y , taken at $x = 27$.