

MS Module 17: Regression analysis confidence intervals and hypothesis testing – homework assignment

(The attached PDF file has better formatting.)

Homework assignment:

Solve either one of the following end of chapter problems, showing all work. The numerical answers are in the appendix to the textbook; for the homework assignment, show how the answer is derived.

- Problem 31 (a) and (b) on page 638 (1st ed) / page 651 (2nd ed).
 - The problem gives β_1 and σ . Show how to derive S_{xx} and the standard deviation of the estimate of β_1
 - This problem gives the x -values; you don't need the corresponding y -values, since you are given β_1 and σ .
- Problem 35 (a) and (b) on page 638 (1st ed) / page 652 (2nd ed).
 - Part (a): show how to derive an estimate of β_1 and its standard deviation.
 - Part (b): show how to derive the p value for the estimate of β_1 to test the null hypothesis $H_0: \beta_1 = 0$