

MS Module 18: Regression analysis: Fitted values and predictions – homework assignment

(The attached PDF file has better formatting.)

Homework assignment:

Solve any 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 45 (b) and (c) on page 646 (1st ed) / page 660 (2nd ed), which is Problem 43 on page 743 (3rd ed).
 - " Part (b): show how to derive the confidence interval.
 - " Part (c): show how to derive the prediction interval.
- ! Problem 47 (a), (b), (c) and (d) on page 646 (1st ed) / page 660 (2nd ed), which is Problem 45 on page 743 (3rd ed)
- ! Problem 51 (b), (c), (d), and (e) on page 647 (1st ed) / page 661 (2nd ed), or Problem 49 on page 744 (3rd ed) [different numbers but the same questions].
 - " The problem gives summary statistics and estimate of the regression parameters. Show how to derive the three confidence intervals in Parts (b), (c), and (d).
 - " Part (e): explain how the distance of the x value from the mean x value gives the solution.