3.4 Reconsider the National Football League data from Problem 3.1. Fit a model to these data using only x_7 and x_8 as the regressors.

a. Test for significance of regression.

b. Calculate R^2 and R^2_{Adj}. How do these quantities compare to the values computed for the model in Problem 3.1, which included an additional regressor (x_2)?

c. Calculate a 95% CI on β_7. Also find a 95% CI on the mean number of games won by a team when $x_7 = 56.0$ and $x_8 = 2100$. Compare the lengths of these CIs to the lengths of the corresponding CIs from Problem 3.3.

d. What conclusions can you draw from this problem about the consequences of omitting an important regressor from a model?