

Homework Set 4

Due Wednesday, March 9, 2011, before class starts

1. Reading: Sections 12.6-12.7.

Analyze the data in Ex. 13.58 (p. 855) using Minitab and answer the following questions:

2. Ex. 13.58.
3. Use the regression model with all nine independent variables to test the hypotheses $H_0 : \beta_{AGE} = -2500$ vs. $H_a : \beta_{AGE} < -2500$. Use $\alpha = 0.05$ and include all steps of a hypothesis test.
4. Ex. 13.60 (p. 860). [Hint: For b, you are asked to estimate the average difference in selling price between a five-bedroom, one-garage home and a two-bedroom, two-garage home while holding all other variables constant. Write down your answer in terms of true β values. The answer will depend on AGE.]
5. Using the 9 variable model, give a 95% prediction interval for a house that has 2 baths, 3 bedrooms, 1 car garage, is 10 years old, has 2000 square feet and has been on the market for 60 days.