

Homework Set 6

**Due Wednesday, April 13, 2011, before class starts**

1. Reading: Lecture notes on model building and diagnostics (Chapter 13).
2. Exercise 13.76 (pp. 875-876).  
Hint: use correlation coefficients to answer (b).
3. Exercise 13.77 (p. 876).  
Hint 1: Use best subset regression in Minitab. Click the “Options” button and you can change the “models of each size to print” from 2 to 4.  
Hint2: Answer (c) based on (b).
4. Exercise 13.78 (p. 877).  
Typo in (b): add “variance” after “constant”.  
Change (c) to this: Find an appropriate transformation of  $Y$  so that the assumptions for regression will be satisfied. Find the “best” model using the transformed  $Y$  and the backward variable selection method.
5. Exercise 13.79 a b (p. 877).  
Note: Base your answers to the model you selected in 13.78 using transformed  $Y$ .
6. Exercise 13.80 (p. 877).  
Note: Base your answers to the model you selected in 13.78 using transformed  $Y$ .