## Statistical Learning - Homework 6 (Conceptual)

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## Chapter 7 - Exercise 5

- a)  $\hat{g}_2$  will have a smaller training RSS since the model has more degrees of freedom, thus producing a more flexible model.
- b)  $\hat{g}_1$  will probably have a smaller test RSS since  $\hat{g}_2$  might overfit due to its high flexibility.
- c) They'll have the same training and test RSS since  $\lambda$  will be so small that both  $\hat{g}_1$  and  $\hat{g}_2$  will be nearly identical.