

## 1 Spring 2016: Problem 2

2.1)  $\hat{\theta} = 0$ .

**Explanation:** We are applying infinite regularization, so all we care about is that  $\|\hat{\theta}\|$  is as small as possible. **Explanation:**

2.2) You only need to have the right shape of your plot.

**Explanation:** Training error is smallest when  $\lambda = 0$  and increases with  $\lambda$ .

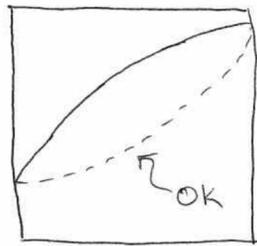


Figure 1: Problem 2.2