

**Figure 1: Hyperparameter Selection on Fixed Validation Set**

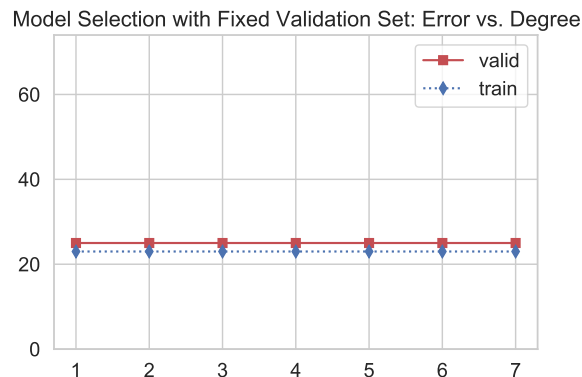


Figure 1: A good professional caption goes here. Describe figure contents. Describe main takeaway.

**1a: Which degree would you select? Would others give similar performance?**

Based on Figure 1, I would recommend degree \_\_\_\_\_ because \_\_\_\_\_.  
Regarding similar performance, I would say \_\_\_\_\_ was observed.

**1b: When does training error approach zero? Why?**

The training error drops to zero at degree \_\_\_\_\_ because \_\_\_\_\_.  
We understand this is true because \_\_\_\_\_. That's all folks.

**1c: Why is preprocessing necessary?**

For this dataset, preprocessing is necessary because \_\_\_\_\_.  
Without preprocessing,  
This is because \_\_\_\_\_  
That is my answer.

**1d: Inspect weights and intercept for model with degree 6**

We notice that the weights have value like \_\_\_\_\_ and the intercept has values like \_\_\_\_\_.  
These values occur because \_\_\_\_\_. That is my answer.