1. **What is the correct use of the "train_test_split" function suc that 40% of the data samples will be utilized for testing, the parameter "random_state2 is set to zero, and the input variables for the features and targets are x_data, y_data respectively? (1 Point)**

   Train_test_split(x_data, y_data, test_size=0.4, random_state=0)

2. **What is the output of the following code? (1 Point)**

```
cross_val_score(lre, x_data, y_data, cv=2)
```

   The average R^2 on the test data for each of the two folds

3. **What is the code to create a ridge regression object RR with an alpha term equal to 10?(1 Point)**

```
RR=Ridge(alpha=10)
```

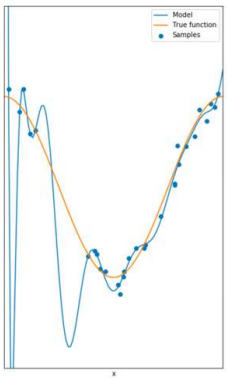
4. **What dictionary value would we use to perform a grid search to determine if normalization should be used and for testing the following values of alpha? 1, 10, 100 (1 Point)**

```
[{'alpha':[1,10,100],'normalize':[True,False]} ]
```

5. **You have all linear model; the average R^2 value on your training data is 0.5, you perform a 100th order polynomial transformation on your data then use these values to train another model. After this step your average R^2 is 0.99; which of the following comments is correct (1 Point)**

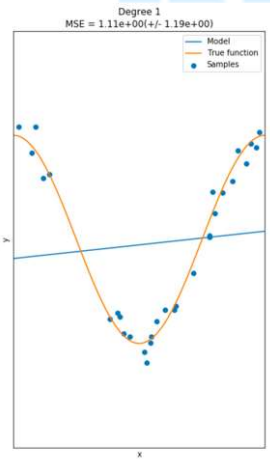
   100th order polynomial will work better on unseen data

6. **The following is an example of what? (1 Point)**



overfitting

7. **The following is an example of what? (1 Point)**



Underfitting