Your grade: 100%

Your latest: **100%** • Your highest: **100%** • To pass you need at least 70%. We keep your highest score.

Next item →

1. Which of the following statements about model complexity is TRUE? **1 / 1 point**

   - ○ Higher model complexity leads to a lower chance of overfitting.
   - ● Higher model complexity leads to a higher chance of overfitting.
   - ○ Reducing the number of features while adding feature interactions leads to a lower chance of overfitting.
   - ○ Reducing the number of features while adding feature interactions leads to a higher chance of overfitting.

   ✓ **Correct**
   Correct! You can find more information in the Bias Trade Off lesson.

2. Which of the following statements about model errors is TRUE? **1 / 1 point**

   - ○ Underfitting is characterized by lower errors in both training and test samples.
   - ● Underfitting is characterized by higher errors in both training and test samples.
   - ○ Underfitting is characterized by higher errors in training samples and lower errors in test samples.
   - ○ Underfitting is characterized by lower errors in training samples and higher errors in test samples.

   ✓ **Correct**
   Correct! You can find more information in the Bias Trade Off lesson.

3. Which of the following statements about regularization is TRUE? **1 / 1 point**

   - ○ Regularization always reduces the number of selected features.
   - ○ Regularization increases the likelihood of overfitting relative to training data.
   - ● Regularization decreases the likelihood of overfitting relative to training data.
   - ○ Regularization performs feature selection without a negative impact in the likelihood of overfitting relative to the training data.

   ✓ **Correct**
   Correct! You can find more information in the Regularization Techniques lesson.

4. Which of the following statements about scaling features prior to regularization is TRUE? **1 / 1 point**

   - ○ Feature scaling is not recommented prior to regularization.
   - ○ Features should rarely or never be scaled prior to implementing regularization.
   - ● The larger a feature's scale, the more likely its estimated impact will be influenced by regularization.
   - ○ The smaller a feature's scale, the more likely its estimated impact will be influenced by regularization.

   ✓ **Correct**
   Correct! You can find more information in the Regularization Techniques lesson.

5. Which one of the 3 Regularization techniques: Ridge, Lasso, and Elastic Net, performs the fastest under the hood? **1 / 1 point**

   - ● Ridge
   - ○ Lasso
   - ○ Elastic Net
   - ○ None of the above

   ✓ **Correct**
   Correct. You can find more information in the Polynomial Features and Regularization Demo.

6. Which of the following statements about Elastic Net regression is TRUE? **1 / 1 point**

   - ● Elastic Net combines L1 and L2 regularization.
   - ○ Elastic Net does not use L1 or L2 regularization.
   - ○ Elastic Net uses L2 regularization, as with Ridge regression.
   - ○ Elastic Net uses L1 regularization, as with Ridge regression.

   ✓ **Correct**
   Correct! You can find more information in the Regularization Techniques lesson.

7. BOTH Ridge regression and Lasso regression **1 / 1 point**

   - ○ Do not adjust the cost function used to estimate a model.
   - ● Add a term to the loss function proportional to a regularization parameter.
   - ○ Add a term to the loss function proportional to the square of parameter coefficients.
   - ○ Add a term to the loss function proportional to the absolute value of parameter coefficients.

   ✓ **Correct**
   Correct! You can find more information in the Regularization Techniques lessons.

8. Compared with Lasso regression (assuming similar implementation), Ridge regression is: **1 / 1 point**

   - ○ Less likely to overfit to training data.
   - ○ More likely to overfit to training data.
   - ● Less likely to set feature coefficients to zero.
   - ○ More likely to set feature coefficients to zero.

   ✓ **Correct**
   Correct! You can find more information in the Regularization Techniques lessons.

9. Which of the following about Ridge Regularization is TRUE? **1 / 1 point**

   - ○ It enforces the coefficients to be lower, but not 0
   - ○ It minimizes irrelevant features
   - ○ It penalizes the size magnitude of the regression coefficients by adding a squared term
   - ● All of the above

   ✓ **Correct**
   Correct! Incorrect! For more information review the Ridge Regression lesson.

10. Whixh of the below statements are correct? **1 / 1 point**

    - ○ Neither RidgeCV nor LassoCV use L1 regularization function.
    - ○ Both RidgeCV and LassoCV use L1 regularization function.
    - ○ Only RidgeCV use L1 regularization function.
    - ● Only LassoCV use L1 regularization function.

    ✓ **Correct**
    Correct! You can find more information in the Polynomial Features and Regularization Demo.