Your grade: 100%

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

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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 recommended 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.