Your grade: 100%

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Next item →

1. The main purpose of splitting your data into a training and test sets is: 1 / 1 point

- ○ To improve accuracy
- ◉ To avoid overfitting
- ○ To improve regularization
- ○ To improve crossvalidation and overfitting

Correct
Correct! You can find more information in the Training and Test Splits lessons.

2. Complete the following sentence: The training data is used to fit the model, while the test data is used to: 1 / 1 point

- ○ measure the parameters and hyperparameters of the model
- ○ tweak the model hyperparameters
- ○ tweak the model parameters
- ◉ measure error and performance of the model

Correct
Correct! You can find more information in the Training and Test Splits lessons.

3. What term is used if your test data leaks into the training data? 1 / 1 point

- ○ Test leakage
- ○ Training leakage
- ◉ Data leakage
- ○ Historical data leakage

Correct
Correct! Data leakage is when your test data leaks into the training data

4. Which one of the below terms ***use*** a linear combination of features? 1 / 1 point

- ○ Binomial Regression
- ◉ Linear Regression
- ○ Multiple Regression
- ○ Polynomial Regression

Correct
Correct! Linear regression is the linear combinations of features. For more information please review the Polynomial Regression lesson.

5. When splitting your data, what is the purpose of the training data? 1 / 1 point

- ○ Compare with the actual value
- ◉ Fit the actual model and learn the parameters
- ○ Predict the label with the model
- ○ Measure errors

Correct
Correct! The training data is used to fit the actual model and learn the parameters

6. Polynomial features capture what effects? 1 / 1 point

- ◉ Non-linear effects.
- ○ Linear effects.
- ○ Multiple effects.
- ○ Regression effects.

Correct
Correct. You can find more information in the polynomial regression lesson.

7. Which fundamental problems are being solved by adding non-linear patterns, such as polynomial features, to a standard linear approach? 1 / 1 point

- ○ Prediction.
- ○ Interpretation.
- ◉ Prediction and Interpretation.
- ○ None of the above.

Correct
Correct! You can find out more information in the Polynomial Regression Features lesson.

8. A testing data could be also reffered to as: 1 / 1 point

- ○ Training data
- ◉ Unseen data
- ○ Corroboration data
- ○ None of the above

Correct
Correct! You can find more information in the Training and Test Splits lessons.

9. Select the correct syntax to obtain the data split that will result in a train set that is 60% of the size of your available data. 1 / 1 point

- ○ X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.6)
- ◉ X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.4)
- ○ X_train, y_test = train_test_split(X, y, test_size=0.40)
- ○ X_train, y_test = train_test_split(X, y, test_size=0.6)

Correct
Correct! You can find more information in the Training and Test Splits lessons.

10. What is the correct sklearn syntax to add a third degree polynomial to your model? 1 / 1 point

- ○ polyFeat = polyFeat.add(degree=3)
- ○ polyFeat = polyFeat.fit(degree=3)
- ◉ polyFeat = PolynomialFeatures(degree=3)
- ○ polyFeat = polyFeat.transform(degree=3)

Correct
Correct! You can find more information in the Polynomial Regression lesson.

Your grade: 100%

Your latest: **100%** • Your highest: **100%** • To pass you need at least 66%. We keep your highest score.

Next item →

1. What is the main goal of adding polynomial features to a linear regression? 1 / 1 point

- ○ Remove the linearity of the regression and turn it into a polynomial model.
- ◉ Capture the relation of the outcome with features of higher order.

  Correct! You can find more information in the Polynomial Regression lesson.
- ○ Increase the interpretability of a black box model.
- ○ Ensure similar results across all folds when using K-fold cross validation.

2. What is the most common sklearn methods to add polynomial features to your data? 1 / 1 point

Note: polyFeat = PolynomialFeatures(degree)

- ○ polyFeat.add and polyFeat.transform
- ○ polyFeat.add and polyFeat.fit
- ◉ polyFeat.fit and polyFeat.transform

  Correct! You can find more information in the Polynomial Regression lesson.
- ○ polyFeat.transform

3. How can you adjust the standard linear approach to regression when dealing with fundamental problems such as prediction or interpretation? 1 / 1 point

- ○ Create a class instance
- ◉ Add some non-linear patterns, i.e., polynomial features

  Correct! You can adjust the standard linear approach to regression by adding polynomial features when dealing with fundamental problems such as prediction or interpretation.
- ○ Import the transformation method
- ○ By transforming the data

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Your grade: 100%

Your latest: **100%** • Your highest: **100%** • To pass you need at least 66%. We keep your highest score.

Next item →

1. What is another term for the testing data: 1 / 1 point

- ○ Training data
- ◉ Unseen data

  Correct! You can find more information in the Training and Test Splits (Part 1) lesson.
- ○ Corroboration data
- ○ Cross validation data

2. (True/False) The ShuffleSplit will ensure that there is no bias in your outcome variable. 1 / 1 point

- ○ True
- ◉ False

  Correct! It is the Stratified ShuffleSplit that will ensure that there is no bias in your outcome variable and not the ShuffleSplit. You can find more information in the Training and Test Splits (Part 2) lesson.

3. Select the option that has the syntax to obtain the data splits you will need to train a model having a test split that is a third the size of your available data. 1 / 1 point

- ○ X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.5)
- ◉ X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.33)

  Correct! You can find more information in the Training and Test Splits (Part 2) lesson.
- ○ X_train, y_test = train_test_split(X, y, test_size=0.33)
- ○ X_train, y_test = train_test_split(X, y, test_size=0.5)

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