

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 referred 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.