

Your grade: 100%

Your latest: 100% • Your highest: 100% • To pass you need at least 60%. We keep your highest score.

Next item →

1. What does the following line of code do?

1 / 1 point

`lm = LinearRegression()`

- ☐ Predicts output values of a linear regression object.
- ☒ Creates a linear regression object and stores it in the **lm** variable.
- ☐ Fits a regression object to the variable lm.
- ☐ Assigns a linear regression model to the lm variable.

✔ **Correct**
Correct! The **LinearRegression()** method is a constructor.

2. What is the maximum value of **R²** that you can obtain?

1 / 1 point

- ☐ 10
- ☐ 0
- ☒ 1
- ☐ Any positive number

✔ **Correct**
Correct! The largest value of the coefficient of determination is 1.

3. If **X** is a data frame with 100 rows and 5 columns, and **y** is the target with 100 samples, and assuming you have imported all the relevant libraries and data have, and executed the following line of code:

1 / 1 point

`LR = LinearRegression()`

`LR.fit(X, y)`

`yhat = LR.predict(X)`

How many samples does **yhat** contain?

- ☐ 500
- ☐ 5
- ☐ 20
- ☒ 100

✔ **Correct**
Correct! The variable yhat contains the predicted values from a linear regression model using the array X as its input.

4. Which statement about **R²**, the coefficient of determination, is true?

1 / 1 point

- ☐ Its value can be either 0 or 1.
- ☐ Its value can be any positive number.
- ☐ Its value can be in the range of -1 to 1, inclusive.
- ☒ Its value can be between 0 and 1 inclusive.

✔ **Correct**
Correct! The coefficient of determination can be a minimum of 0 and a maximum of 1.

5. Consider the following equation:

1 / 1 point

$y = b_0 + b_1x$

The variable **y** is _____?

- ☐ The predictor or independent variable
- ☐ The intercept
- ☐ The degree of the polynomial
- ☒ The target or dependent variable

✔ **Correct**
Correct! The variable **y** is the output variable, which depends on the values of the other variable **x** and parameters **b₀** and **b₁**.