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()
```

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

Correct
Correct! The `LinearRegression()` method is a constructor.

2. What steps do the following lines of code perform? **1 / 1 point**

```
Input=[('scale',StandardScaler()),('model',LinearRegression())]
pipe=Pipeline(Input)

pipe.fit(Z,y)

ypipe=pipe.predict(Z)
```

- ○ Performs a polynomial transform on the features **Z**
- ○ Calculates the Coefficient of Determination
- ○ Finds the correlation between **Z** and **y**
- ◉ Performs a prediction using a linear regression model

Correct
Correct! This code standardizes a data set, fits a linear model, and then uses the model to predict values based on **Z.**

3. What is the order of a polynomial created with this code? **1 / 1 point**

```
Pr = PolynomialFeatures(degree=2)
```

- ◉ 2
- ○ A minimum of 2
- ○ A maximum of 2
- ○ Between 0 and 2, inclusive

Correct
Correct! You can use the code `PolynomialFeatures(degree=2)` to create a 2nd-order polynomial.

4. Which statement about $\mathbf{R^2}$, the coefficient of determination, is true? **1 / 1 point**

- ○ Its value can be any positive number.
- ○ Its value can be either 0 or 1.
- ○ 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**

$$y = b_0 + b_1 x$$

The variable y is _____?

- ○ The degree of the polynomial
- ○ The predictor or independent variable

- ○ The intercept
- ◉ 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 b_0 and b_1.