Try again once you are ready

Grade received 68.75%
Latest Submission Grade 68.75%
To pass 80% or higher

Try again

1. What is the difference between observed or actual values and the predicted values of a regression line? **1 / 1 point**

- Slope
- Beta
- Parameter
- Residual (selected)

Correct

2. A data professional minimizes the sum of squared residuals to estimate parameters in a linear regression model. What method are they using? **1 / 1 point**

- Residual coefficients
- Mean absolute error
- R squared
- Ordinary least squares (selected)

Correct

3. A data professional testing for linear regression assumptions notices that their visualization appears with a downward curve. Which model assumption does this invalidate? **1 / 1 point**

- Independent observation
- Normality
- Linearity (selected)
- Homoscedasticity

Correct

4. FIll in the blank: A scatterplot matrix is a series of scatterplots that show the relationships between pairs of _____. **1 / 1 point**

- variables (selected)
- models
- lines
- coordinates

Correct

5. A data professional at a toy manufacturer checks model assumptions while working on a project about potential new game concepts. They find no clear pattern in their scatterplot and can confirm constant variance along the values of the dependent variable. What does this scenario describe? **1 / 1 point**

- Normality
- Homoscedasticity (selected)
- Linearity
- Independent observation

Correct

6. Fill in the blank: A confidence band is the area surrounding a line that describes the _____ around the predicted outcome at every value of X. **0 / 1 point**

- uncertainty
- certainty (selected)

- accuracy
- inaccuracy

Incorrect
Review the video about uncertainty in regression analysis.

7. What measures the proportion of variation in the dependent variable Y explained by the independent variable X? **0 / 1 point**

- (•) Mean squared error (MSE)
- ( ) P-value
- ( ) R squared
- ( ) Mean absolute error (MAE)

Incorrect
Review the video about model evaluation metrics.

8. Which of the following statements accurately describe running a randomized, controlled experiment? Select all that apply. **0.5 / 1 point**

- [ ] To be successful, data professionals must control for every factor in the experiment.
- [x] It is typically used when arguing for causation between variables.

Correct

- [x] It is a study design that systematically and methodically assigns participants into groups.

This should not be selected
Review the reading about correlation versus causation.

- [x] The differences between the control and treatment groups must be observable and measurable.

Correct