1. What is the area surrounding a regression line, which describes the uncertainty around the predicted outcome at every value of X? 0 / 1 point

- (●) Confidence interval
- ( ) R squared
- ( ) Ordinary least squares
- ( ) Confidence band

⊗ Incorrect
The confidence band is the area surrounding a regression line, which describes the uncertainty around the predicted outcome at every value of X. The confidence band reveals the confidence interval for each point on a regression line. A confidence interval is a range of values that describes the uncertainty surrounding an estimate.

2. Fill in the blank: R squared measures the _____ in the dependent variable, Y, that is explained by the independent variable, X. 1 / 1 point

- ( ) proportion of accuracy
- ( ) coefficient of accuracy
- ( ) coefficient of variation
- (●) proportion of variation

✓ Correct
R squared measures the proportion of variation in the dependent variable, Y, that is explained by the independent variable, X. It is calculated by subtracting the sum of squared residuals (explained variance) divided by the total variance from 1.

3. Which linear regression evaluation metric is sensitive to large errors? 1 / 1 point

- ( ) Adjusted R squared
- ( ) Mean absolute error (MAE)
- ( ) The coefficient of determination
- (●) Mean squared error (MSE)

✓ Correct
Mean squared error (MSE) is sensitive to large errors. The MSE is the average of the squared difference between the predicted and actual values.