

Quiz 2 - Regrade Submission 1

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October 10, 2018

3. If the variables in X refer to time periods, then to test the linear trend over time requires defining an appropriate row in the M matrix.

Original answer: True

Explanation: Trick question. You could say that testing the linear trend requires defining the row appropriately (rather than the appropriate row) because you are defining a trend. For example a linear trend across three time periods would be a row vector:

$$-1 \quad 0 \quad 1$$

4. Under the null hypothesis, the numerator and denominator of the F ratio estimate the same thing.

Original answer: True

Explanation: Under the null hypothesis, the variability in the linear combination is no larger than the variability within the linear combination.