

Quiz 6 - Regrade Submission 1

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4. According to the illustrated model, X_1 and X_4 should be correlated.

Original answer: False

Explanation: This is true because residuals of the indicators are uncorrelated after conditioning on the latent variable

5. According to the illustrated model, ξ_1 and δ_3 are correlated.

Original answer: True

Explanation: This is false because residuals are independent of latent variable.

9. If a nested model test is significant, the simpler model is the better approximation of the data.

Original answer: True

Explanation: This is false because the nested model test tests whether the difference in deviations from the individual model fits from the null model are significantly different than one another. If the χ^2 value is significant, this indicates that the more complex model is a significant improvement over the simpler model.

10. The maximum number of parameters that can be estimated given the number of measured variable sin the illustrated model is 10.

Original answer: True

Explanation: This is false because the total number of possible parameters is equal to $5(5-1)/2 + 5 = 15$.