

### STA 477 Concept Problems 3

1. Describe how various methods can be used to estimate parameters in a time series model. Which method does JMP use?
2. What does the PACF of  $\{X_t\}$  at lag  $k$  measure? Please explain.
3. Explain how hypothesis tests may be used to help select an appropriate model for a time series realization.
4. What are the strengths and weaknesses of AIC as a criterion to select models?
5. Explain how you would go about fitting a seasonal ARIMA to a time series realization.
6. What is the purpose of residual diagnostics?
7. Is forecasting in time series equivalent to predicting in regression? What is the difference between a prediction interval and a confidence interval?