1. If the Durbin-Watson test shows that the Durbin-Watson statistic is 2.0. What can you infer about the time series property of the residuals from an OLS regression?

   Answer: There is no serial correlation in the residuals of 1 lag.

2. What is the difference between the Breusch-Godfrey test and the Durbin-Watson test?

   Answer: Breusch-Godfrey test is more general, being able to test for serial correlation of multiple lag. Moreover, the Breusch-Godfrey test statistic follows the chi-square distribution. By contrast, the Durbin-Watson test statistic is limited to one lag; does not have a known distribution, and at times the inference cannot be made.

3. What is the Goldfeld-Quandt (GQ) test for?

   Answer: The Goldfeld-Quandt (GQ) tests whether the sample variances from two samples are equal. The test statistic follows the F distribution.

4. What is the degrees of freedom of the χ^2 statistic in White's test?

   Answer: It is the number of regressors in the auxiliary regression excluding the constant term.

5. White's heteroscedasticity consistent standard error tends to be larger than the usual OLS standard error. True or false?

   Answer: True

6. What is the test statistic for testing that the appropriate functional form is linear?

   Answer: Ramseys RESET test statistic, which follows the chi-square distribution.

7. Omission of an important variable is more serious a problem than the commission error. Yes or no?

   Answer: Yes

8. What is the consequence of errors-in-variables problem?

   Answer: The parameter estimates will be biased and inconsistent.

9. What is the purpose of Chow's test?

   Answer: It tests whether the parameter is stable or constant across the entire sample period.

10. What is the test statistic of a predictive failure test?

    Answer: The test statistic follows the F distribution.

11. What are your takeaways (new things learned and new insights and doubts)?