Week 4 - Check Your Understanding

1. Longitudinal data are data ordered by time while cross-sectional data are not.

   *a. True

   b. False

2. A time series can usually be decomposed into two components: Time trend component and and seasonal component.

   a. True *b. False

3. Time series regression is to model y_t as a polynomial function of the time t and an error.

   *a. True

   b. False

4. A white-noise can be considered as an identically independently distributed from a specific distribution

   *a. True

   b. False

5. A stationary time series has the mean function change over time

   a. True *b. False

6. A stationary time series has a constant variance over time.

   *a. True

   b. False

7. A white noise is a stationary time series.

   *a. True

   b. False

8. A random walk is always non-stationary.

   a. True *b. False

9. In simple moving average, the smaller the value k, the smoother the averages.

   a. True *b. False

10. Autoregression models of level 1, AR(1), includes both white-noise process and random walk process.

    *a. True

    b. False