

### Unit 13. Pre-Class Quiz Questions

1. The number of data points that can be obtained from a single isothermal CSTR experimental run is
  - a. 0
  - b. 1
  - c. 2
  - d. 3
  - e. as many as the experimenter wants
2. Head space in a CSTR is
  - a. volume at the top of a reactor that is created so that workers can stand up while cleaning the reactor
  - b. a small volume of fluid used to get the reactor started
  - c. the top one-third of the reactor
  - d. any reactor volume that is not filled with a reacting liquid phase
  - e. a small chamber with a porthole that permits observation of space
3. The space velocity and the space time are
  - a. both related to the fluid volume and the outlet volumetric flow rate
  - b. both related to how long it takes to fill the head space
  - c. equal to each other
  - d. reciprocals of each other
  - e. NASA terms that are used when a CSTR is used to model the combustion of rocket fuel
4. True or false? Before steady state CSTR kinetic data analysis can begin, one needs to decide whether to perform a differential analysis or an integral analysis.
5. True or false? The inlet and outlet volumetric flow rates are always equal to each other when a steady state CSTR is used to generate kinetic data.