

### Unit 37. Pre-Class Quiz Questions

1. True or false? In Example 37.1, the porous solid could not be modeled as a CSTR or well-mixed stagnant zone because the reactants and products are not perfectly mixed within the porous solid.
2. Which of the following reactors always combine reaction and separation (select all that apply)
  - a. spray tower reactors
  - b. membrane reactors
  - c. reactive distillation columns
  - d. slurry reactors
  - e. none of the above
3. Which of the following reactors are particularly well-suited to gas-liquid reactions (select all that apply)
  - a. laminar flow reactors
  - b. trickle bed reactors
  - c. riser reactors
  - d. bubble column reactors
  - e. spray tower reactors
4. True or false? When modeling a multi-phase reactor, design equations are typically written for each phase that is present.
5. True or false? A laminar flow reactor model might be useful in systems where the Reynolds number is greater than 2100.