AFCoKaRE Practice Problem 18.2

Purpose: This problem will allow you to practice the qualitative analysis of a batch reactor.

Problem Statement: Consider the exothermic, reversible reaction A → B. The reaction is first order in both directions. Suppose the reaction was run isothermally at each of two different temperatures. The initial concentration of A was the same in both runs and there was no B present initially in either run. (a) Sketch the concentration of A as a function of time for both runs on the same set of axes. (b) Sketch the fractional conversion of A as a function of time for both runs on the same set of axes.