

# Preclass Assignment

## CHEM 1100-General Chemistry II

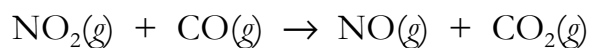
Name:

#5

Section: 31, TR

Due Date: Tuesday 1/29/2019

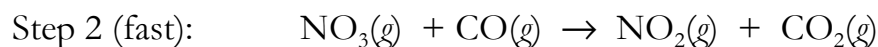
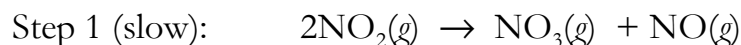
1. The overall reaction between nitrogen dioxide and carbon monoxide may be written as follows:



Below 225 °C, the rate law is:

$$\text{rate} = k[\text{NO}_2]^2$$

You will verify that the following mechanism is consistent with the rate law:



a. Add up both of the elementary steps and show that this equals the overall chemical equation.

b. Write the rate law based on the slow step. Is it the same as the experimental rate law?