

# Participation Assignment

## CHEM 1100-General Chemistry II

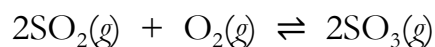
Name:

#8

Section: 31, TR

Due Date: Tuesday 2/5/2019

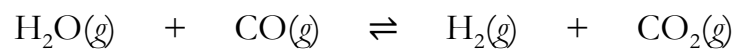
1. At 800 K, equilibrium concentrations for the formation of sulfur trioxide,  $\text{SO}_3$ , were:



$$[\text{SO}_2]_{\text{eq}} = 0.0030 \text{ M} \quad [\text{O}_2]_{\text{eq}} = 0.0035 \text{ M} \quad [\text{SO}_3]_{\text{eq}} = 0.050 \text{ M}$$

Calculate the equilibrium constant.

2. At 800 K, a mixture of 0.250 M  $\text{H}_2\text{O}$  and 0.250 M  $\text{CO}$  is allowed to come to equilibrium. Calculate the equilibrium concentrations of all the chemical species.  $K_c$  is 4.11 at 800 K.



3. At 430 °C, 0.600 mol of HI is added to a 2.00 L container and allowed to come to equilibrium. Calculate the equilibrium concentrations of all the chemical species.  $K_c$  is 54.3 at this temperature.

