

Chapter 15 Practice Quiz D

Name : _____

Question 1. (2 points) The value of K_c for a reaction is equal to 1.03. What does this tell you about the relative amounts of reactants and products?

Question 2. (2 points) The reaction quotient (Q) is larger than the equilibrium constant (K_c). In which direction will the reaction precede? **Explain.**

Question 3. (2 points) The reaction: $3H_{2(g)} + N_{2(g)} \rightleftharpoons 2NH_{3(g)}$ $\Delta H = -91.9$ KJ is at equilibrium. State four ways that you could shift the equilibrium to the right. **Be specific.**

a)

b)

c)

d)

Question 4. (4 points) For the reaction: $CO(g) + H_2O(g) \rightarrow CO_2(g) + H_2(g)$ $K_c = 0.58$.

Determine the equilibrium concentrations of all the species after 0.0200 moles of $CO_{(g)}$ and $H_2O_{(g)}$ are allowed to come to equilibrium in a 1.00L flask. (Use an icebox.)

(Answer: $[CO] = [H_2O] = [0.0114]$; $[CO_2] = [H_2] = [8.6 \times 10^{-3}]$)