ANSWER TO "TRY YOURSELF" PROBLEM FROM STUDY SECTION 7.4

Try Yourself 7.4 a

The reaction $N_2(g) + O_2(g) \rightleftharpoons 2NO(g)$ contributes to air pollution whenever a fuel is burned in air at high temperature. At 1500 K, K = 1.0×10^{-5}. Suppose a sample of air has $[N_2] = 0.80$ M and $[O_2] = 0.20$ M before any reaction occurs. Calculate the equilibrium concen-trations of reactants and products at 1500 K.