Objective:
- determine all equilibrium concentrations given $K_{eq}$ and initial concentrations

**Longer ICE problems**
Sample Problem: Sulfur trioxide gas breaks down in an equilibrium state to form sulfur dioxide gas and oxygen gas. At a particular temperature, the $K_{eq}$ for this reaction is $3.0 \times 10^{-6}$. If you start with 1.0 M sulfur trioxide, what are the equilibrium concentrations of all species?