Name:	SB#:
-------	------

1. Write the oxidation number for each element on the reactant and product side of this chemical equation. (Phase labels are omitted for clarity.)

$$2 \text{ KMnO}_4 + 16 \text{ HCl} \rightarrow 2 \text{ MnCl}_2 + 8 \text{ H}_2\text{O} + 5 \text{ Cl}_2 + 2 \text{ KCl}$$

reactant side

K	
Mn	
О	
Cl	

product side

K	
Mn	
О	
Cl in MnCl ₂	
Cl in Cl ₂	
Cl in KCl	

What element was	oxidized?	

What element was reduced?

2. Write the equilibrium constant expression for the following reaction.

$$2 SO_2(g) + O_2(g) \rightleftharpoons 2 SO_3(g)$$