

# Relationship between $K_{eq}$ and $DG^{0'}$

$$DG^{0'} = - [1372] \lg_{10} K_{eq}$$

<u>Products</u> <u>Reactants</u>	$K_{eq}$		$\lg_{10}$	$DG^{0'}$ cal/mole* [ $\lg_{10} \times -1372$ ]	
1/1000	.001	$10^{-3}$	<b>-3</b>	<b>+ 4116</b>	<b>[R] &gt; [P]</b>
1/100	.01	$10^{-2}$	<b>-2</b>	<b>+ 2744</b>	
1/10	.1	$10^{-1}$	<b>-1</b>	<b>+ 1372</b>	
1/1	1.0	0	0	0	
10/1	10	$10^{+1}$	<b>+1</b>	<b>- 1372</b>	<b>[P] &gt; [R]</b>
100/1	100	$10^{+2}$	<b>+2</b>	<b>- 2744</b>	
1000/1	1000	$10^{+3}$	<b>+3</b>	<b>- 4116</b>	