

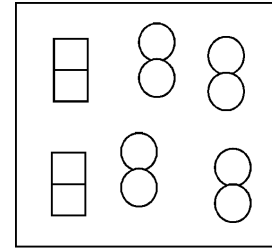
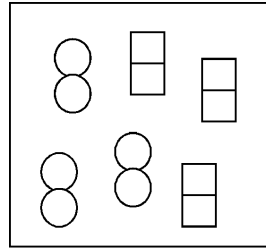
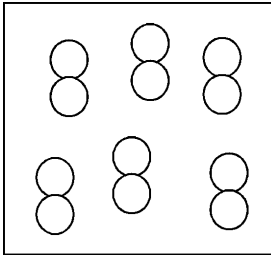
**Hill Equation:**

$$\log\left(\frac{Y}{1-Y}\right) = n_h \log[L] + \log K_D$$

$$Y = \frac{[L]}{K_D + [L]}$$

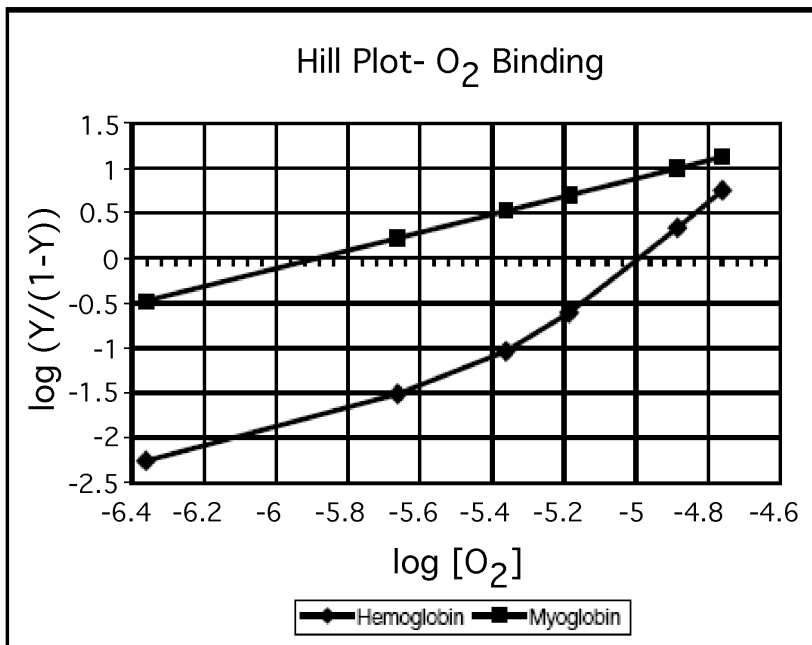
$$Y = \frac{[L]^2}{K_{D2} + [L]^2}$$

$$Y = \frac{[L]^{n_h}}{K_{Dh} + [L]^{n_h}}$$



**Analysis of O<sub>2</sub> Binding to Myoglobin and Hemoglobin**

[O <sub>2</sub> ] (μM)	log[L] (M)	Non Coop (Myo)		Cooperative (Hb)	
		Y	log(Y/(1-Y))	Y	log(Y/(1-Y))
0.43	-6.36	0.250	-0.477	0.005	-2.253
2.17	-5.66	0.625	0.222	0.029	-1.512
4.35	-5.36	0.769	0.523	0.084	-1.037
6.52	-5.18	0.833	0.699	0.198	-0.608
13.04	-4.88	0.909	1.000	0.685	0.338
17.39	-4.76	0.930	1.125	0.850	0.753



**Myoglobin:**

$n_h = \frac{\Delta y}{\Delta x} =$

$K_D =$

**Hemoglobin:**

$n_h = \frac{\Delta y}{\Delta x} =$

$K_D^{ave} =$