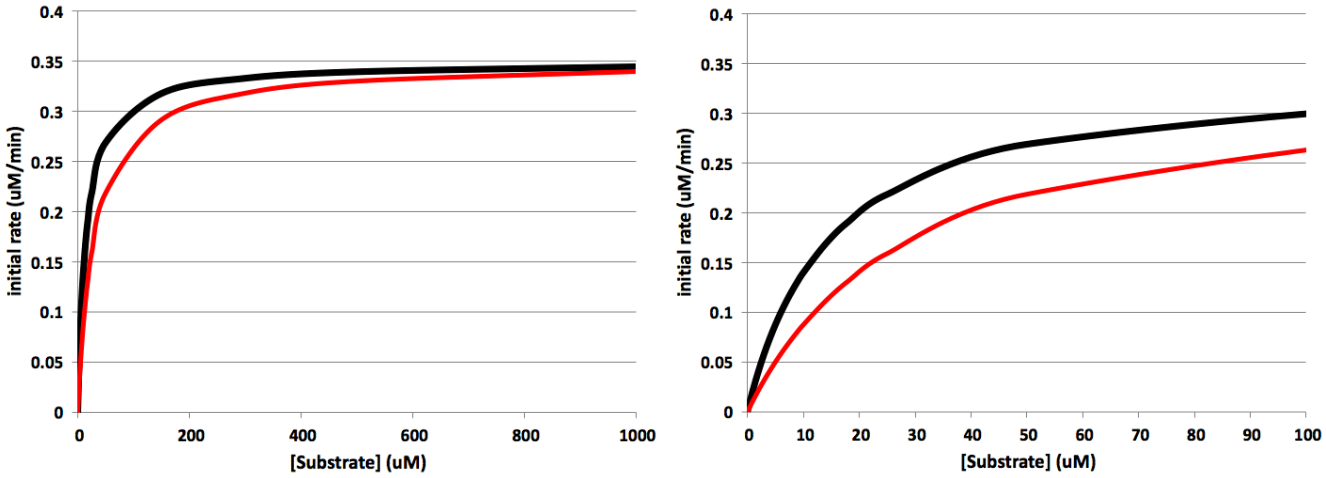
Name: _____ Quiz 22

Image that you collect the following kinetic data in the absence of inhibitor (black line) and in the presence of 1 mM inhibitor (red line). The two graphs are the same data which vary only in the scale of the x-axis.



1. What is the V_{max} in the absence of inhibitor? Include units.

2. What is the V_{max} in the presence of 1 mM of inhibitor? Include units.

3. What is the K_M in the absence of inhibitor? Include units.

4. What is the K_M in the presence of 1 mM of inhibitor? Include units.

5. The inhibitor is competitive and follows the equation: $v_0 = \frac{V_{max}[S]}{K_M\left(1+\frac{[I]}{K_I}\right)+[S]}$. What is the K_I for the inhibitor? Include units.