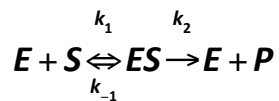


Quiz 22

NAME: _____



$$k_1 = 11 \text{ uM}^{-1} \text{ s}^{-1}$$

$$k_{-1} = 13 \text{ s}^{-1}$$

$$k_2 = 9.8 \text{ s}^{-1}$$

1. Determine the value for the equilibrium dissociation constant for ES (K_D). Show your work and include units.
2. Determine the value of K_M . Show your work and include units.
3. Draw a sketch of what you expect to observe for a plot of initial rates versus [substrate]. Make sure to label the axes and include numerical values.
4. Draw a Gibbs Free Energy (G) Diagram for this process.