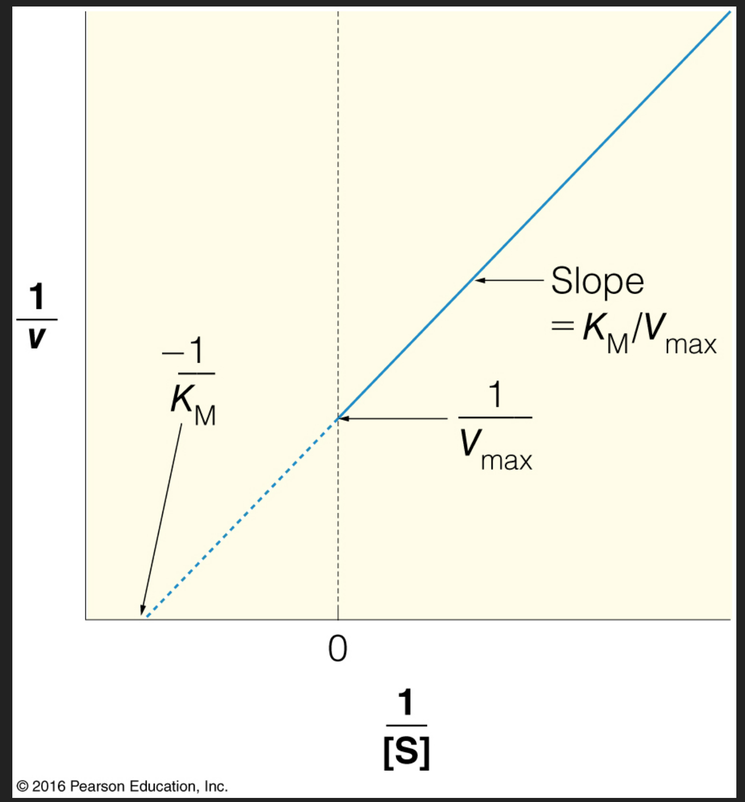
CALCULATING K_M AND V_{MAX}

- When $\frac{1}{[S]} = 0$, or at the y=intercept
  - Substrate Concentration = Infinite
  - Reaction is at its maximum velocity

- K_M can be calculated using the slope of the line

$$Slope = \frac{K_M}{V_{max}}$$

- Since only initial velocities are used to make this graph, it can be highly error prone
  - Non-Linear Curve fitting software is used to study these values
  - It is still useful in enzyme inhibition studies



MULTI-SUBSTRATE REACTIONS

- So far, we have only considered simple enzymatic reactions
  - AKA , one substrate interacting with the enzyme

- Reactions that involve multiple substrates are way more common
  - In general, these types of reactions can be classified into one of three categories
    - Random Substrate Binding
    - Ordered Substrate Binding
    - The Ping-Pong Mechanism
  - We will not cover these in this class, but be aware they exist