8.1

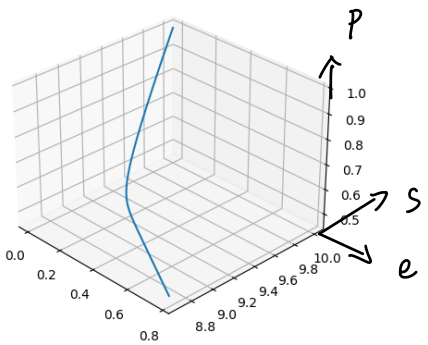
$$\frac{d[P]}{dt} = k_3[ES]$$

$$\frac{d[ES]}{dt} = k_1[E][S] - k_2[ES] - k_3[ES]$$

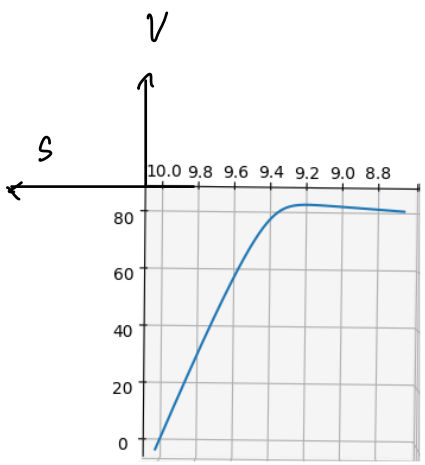
$$\frac{d[S]}{dt} = k_2[ES] - k_1[E][S]$$

$$\frac{d[E]}{dt} = -k_1[E][S] + k_2[ES] + k_2[ES]$$

8.2



8.3



from the plot when concentration of S is large V perform linear but when S is smaller than 8.8 , V saturate to 80