

8,1

$$\text{rate } [P] = k_3 [ES]$$

$$\text{rate } [E] = k_2 [ES] - k_1 [E][S]$$

$$\text{rate } [S] = k_2 [ES] - k_1 [E][S]$$

$$\text{rate } [ES] = k_1 [E][S]$$