

8.1.

$$d[E]/dt = (k_2 + k_3)[ES] - k_1[E][S]$$

$$d[S]/dt = k_2[ES] - k_1[S][E]$$

$$d[ES]/dt = k_1[E][S] - (k_2 + k_3)[ES]$$

$$d[P]/dt = k_3[ES]$$