8.1

$$\begin{split} \frac{d[E]}{dt} &= 0\\ \frac{d[S]}{dt} &= \mathcal{R}_2 [ES] + \mathcal{R}_1 [E][S]\\ \frac{d[ES]}{dt} &= \mathcal{R}_1 [E][S] + \mathcal{R}_2 [ES] + \mathcal{R}_3 [ES]\\ \frac{d[P]}{dt} &= \mathcal{R}_3 [ES] \end{split}$$

8.2

8.3

