2.1

$$d_E/d_t = -k_1[E][S] + k_2[ES] + k_3[ES]$$

$$d_S/d_t = k_2[ES] - k_1[E][S]$$

$$d_{ES}/d_t = -d_E/d_t = k_1[E][S] - k_2[ES] - k_3[ES]$$

$$d_P/d_t = k_3[ES]$$

2.2, 2.3:

Please refer to 'RK4.py'