An investigator has reported the data (provided in the data.txt file) for an experiment to determine the growth rate of bacteria *k*, as a function of oxygen concentration *c*. It is known that such data can be modeled by the following equation:

$$k = \frac{k_{max} c^2}{c_s + c^2}$$

Here, k_{max} and c_s are two constants.

You are provided with **data.txt** file where each line contains a value of *c* and the corresponding value of *k*.

i. Compute the values of c_s & k_{max} so that the corresponding curve best fit the data provided in the data.txt file. **(15)**
ii. Plot the provided data points as well as the computed curve **in a single plot with different colors**. **(5)**