Mathematical and Computer Modeling of Biological Processes

Practice 2

Consider the chemical reactions:

$$A+B \xrightarrow{k} C$$
, $B+C \xrightarrow{k} A$

with [A]+[C]=3 at time t=0. Show that y=[B] satisfies

$$y(t) = y_0 e^{-3kt}$$

taking into account that $y(t)|_{t=0} = y_0$.

(2 points)