

$$\frac{dl}{dt} = k_p$$

When
 $\Delta t \rightarrow 0$

$$\frac{\Delta l}{\Delta t} = k_p$$

$$\Delta t = 0.1 \text{ sec}$$

$$\Delta l = k_p \cdot 0.1$$

$$\Delta l = 10 \times 0.1 = 1$$

$$\frac{dx}{dt} = k_p$$

$$\frac{dy}{dx} = m$$

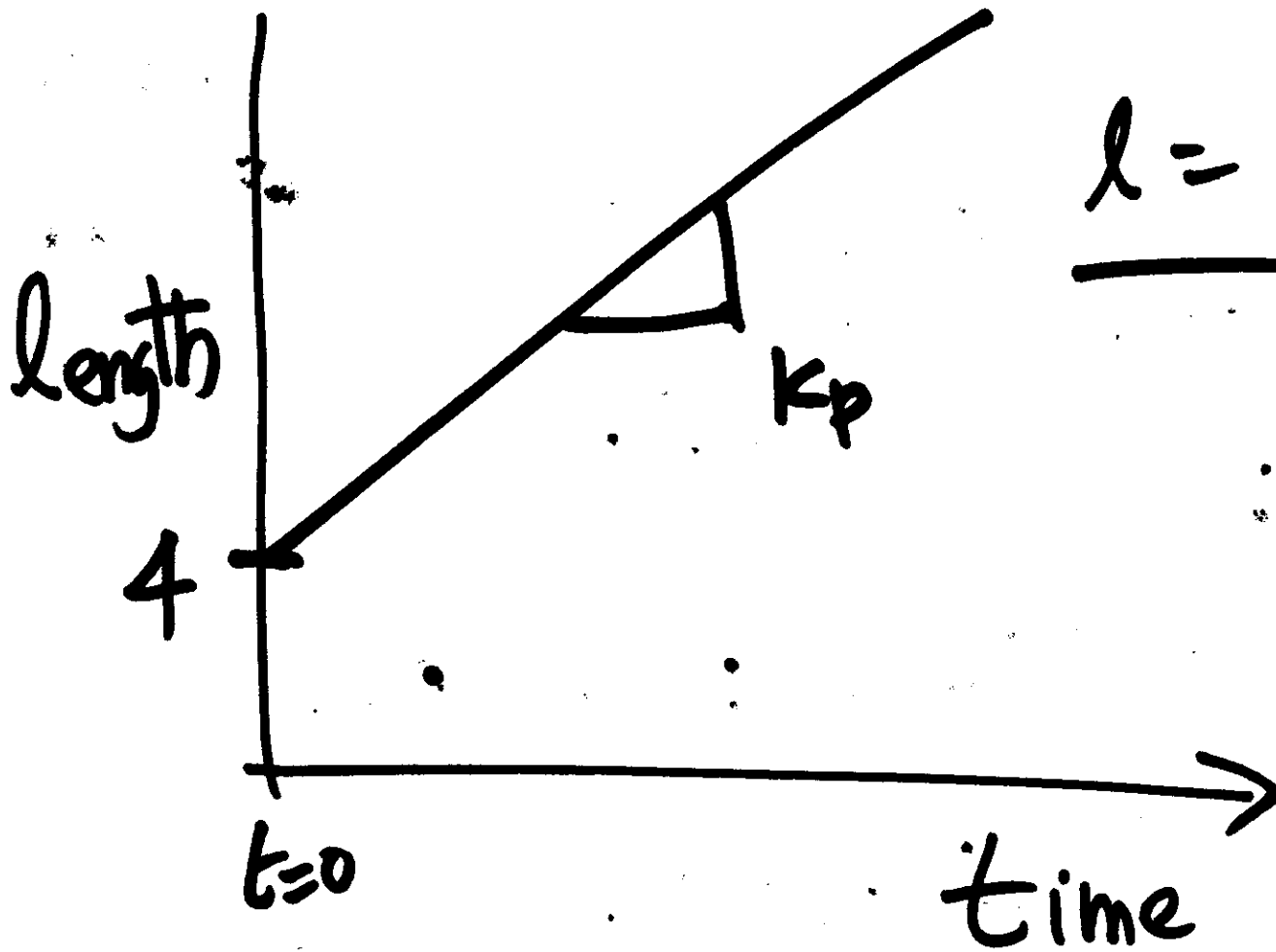


t	λ
1	5
2	6
3	7
\vdots	
10	14

$$\lambda(t) = \underline{k_p} t + \underline{\lambda_0}$$

$$\lambda_0 = 4 \text{ monomers}$$

$$\lambda(t) = \underline{1 \cdot t} + 4$$



$$\underline{l = k_p t + 4}$$

$$l(t) = -k_d t + C$$

when $t = 0$

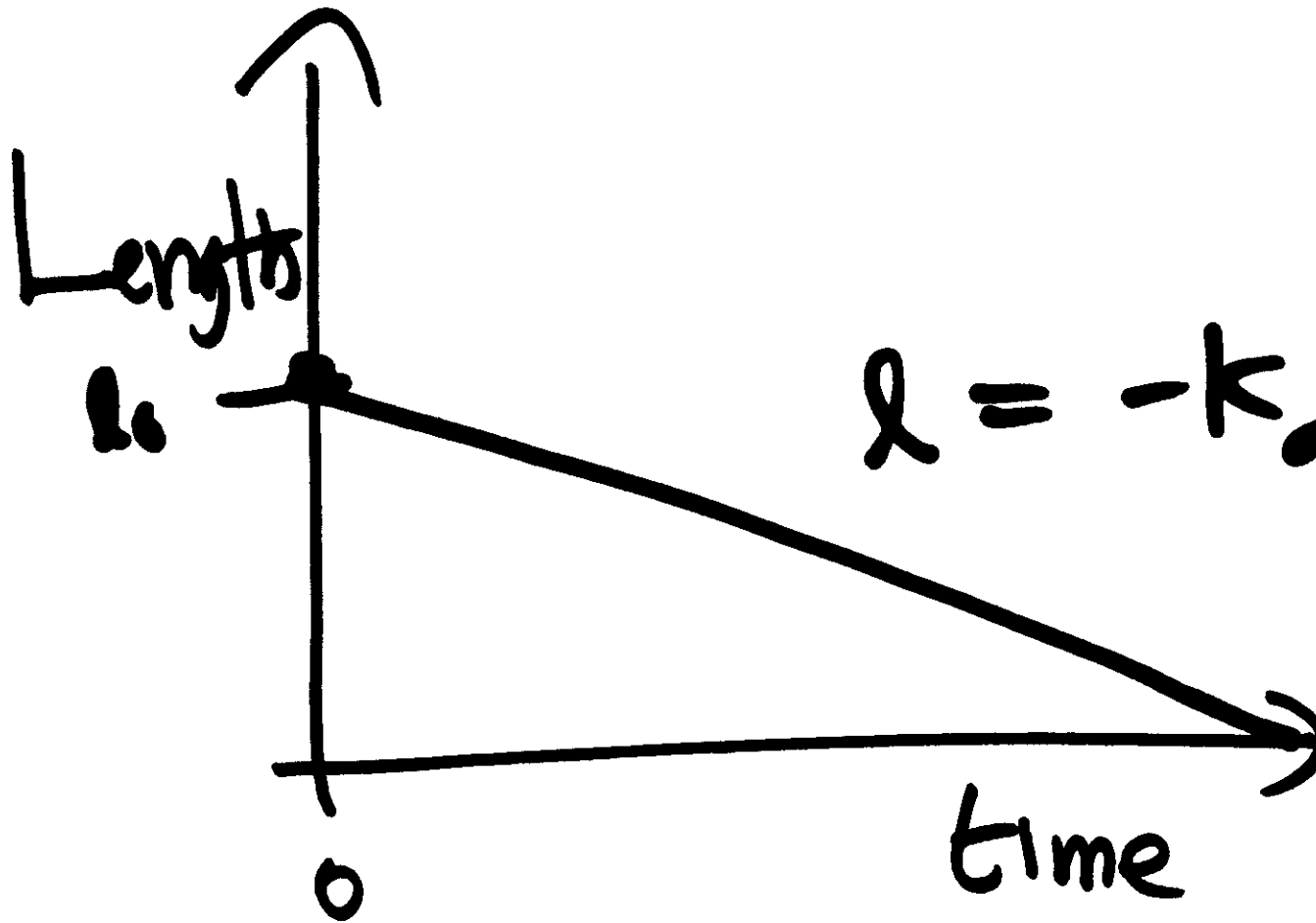
$$l(0) = \underline{-k_d \cdot 0 + C}$$

$$l(0) = C = l_0$$

$$l(t) = -k_d t + l_0$$

$$= l_0 - k_d t$$

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10 \rightarrow 20 :

$$\Delta N = 20 - 10 = \underline{\underline{10}}$$

2 \rightarrow 4

$$\Delta N = 4 - 2 = \underline{\underline{2}}$$

— 100 \rightarrow 200 $\Delta N = \underline{\underline{100}}$

$$\Delta N \propto N$$

$$\frac{\Delta N}{\Delta t} \propto N$$

$$\frac{\Delta N}{\Delta t} = +KN$$

$$\frac{\Delta N}{\Delta N}$$

$$2 \quad 2$$

$$10 \quad 10$$

$$100 \quad 100$$

$$\log_e y = x$$

$$y = e^x$$

$$\ln y = x$$

$$y = e^x$$

B

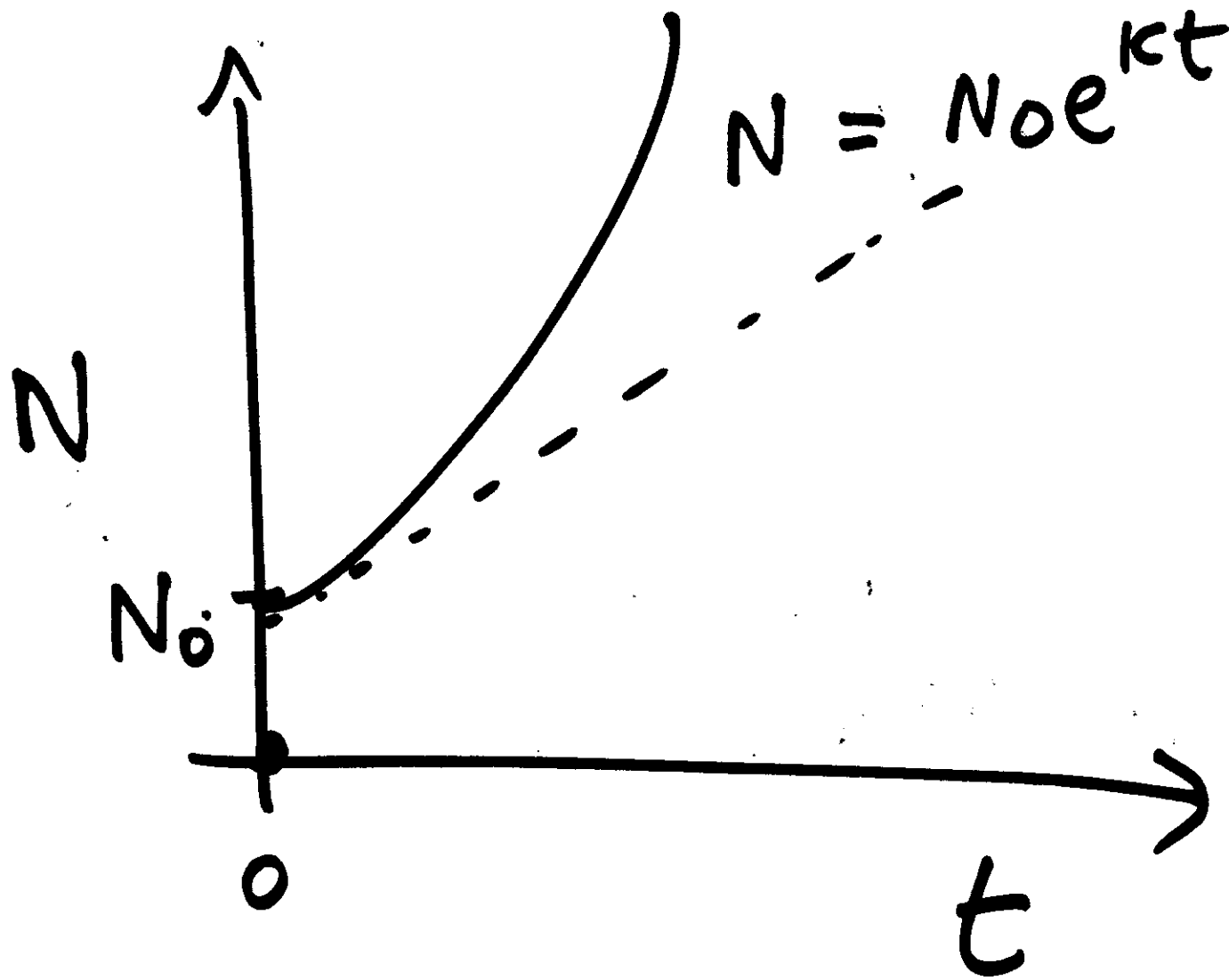
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$$e^{kt+c} = N(t)$$

$$e^{kt} \cdot \boxed{e^c}$$

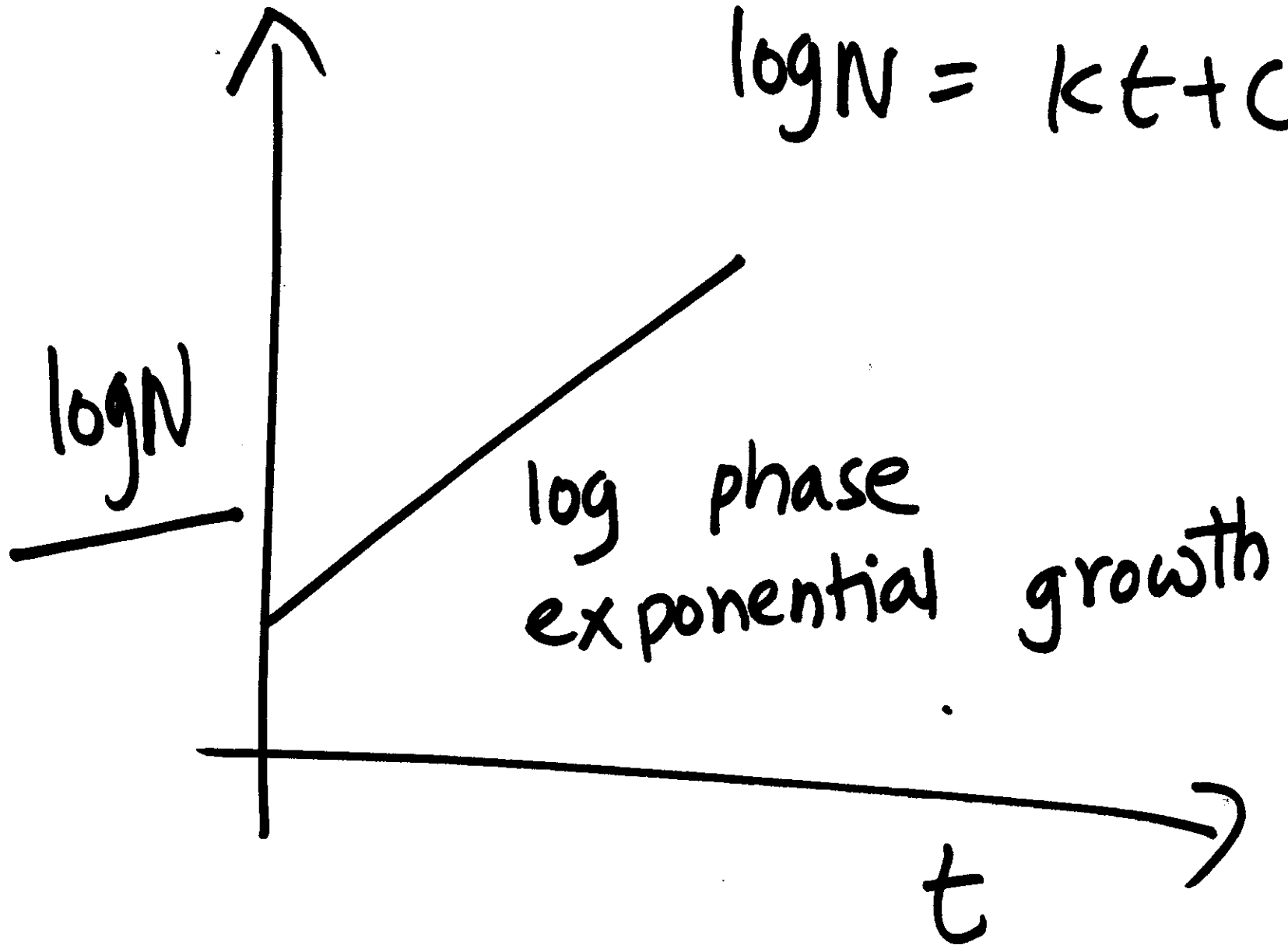
$$\frac{e^A \cdot e^B}{e^A} = e^B$$

$$e^A \cdot e^B = e^{A+B}$$

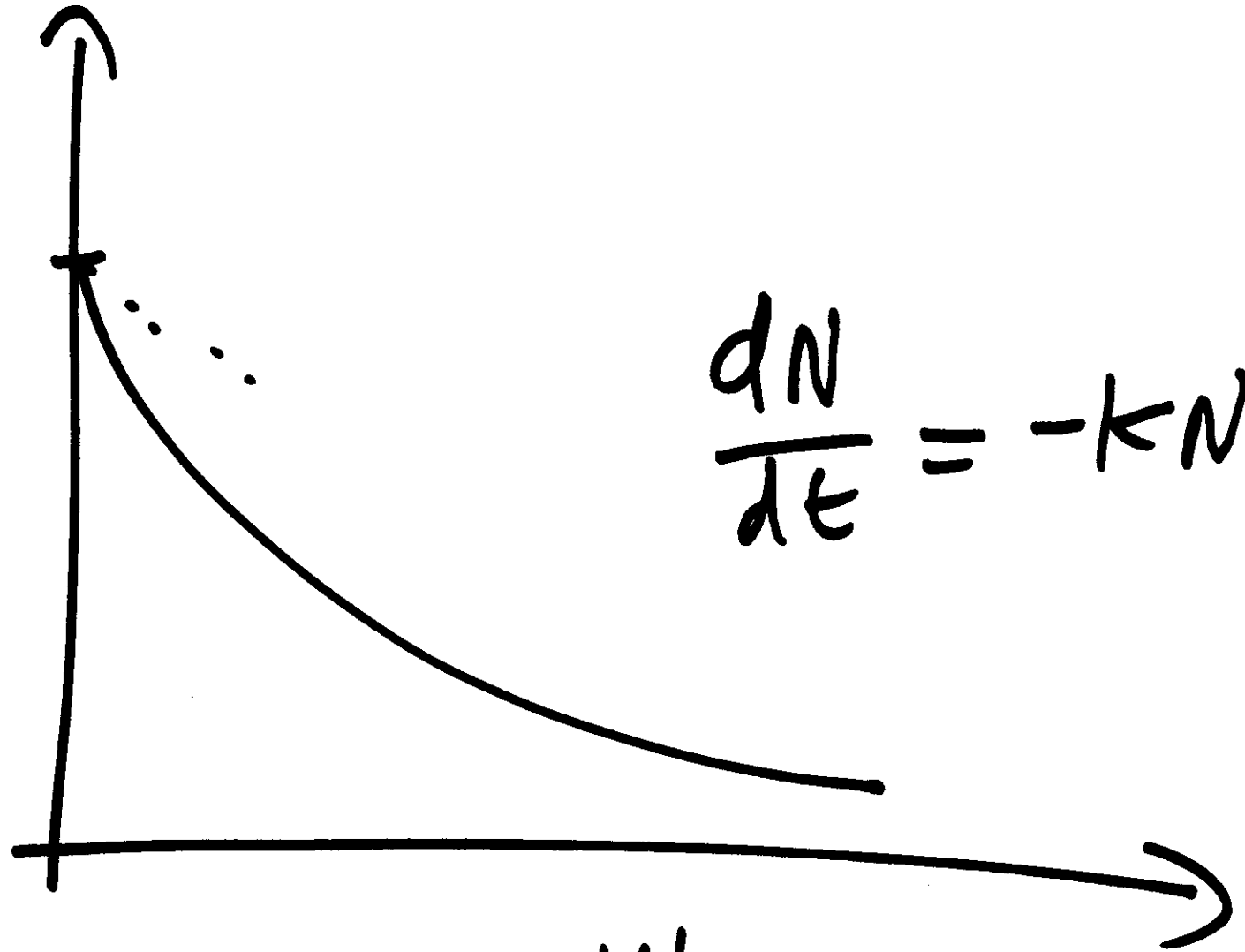


$$N = N_0 e^{kt}$$

$$\log N = kt + C$$



N



$$N = N_0 e^{-kt}$$

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