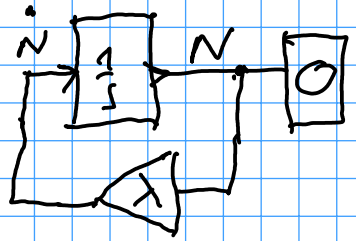
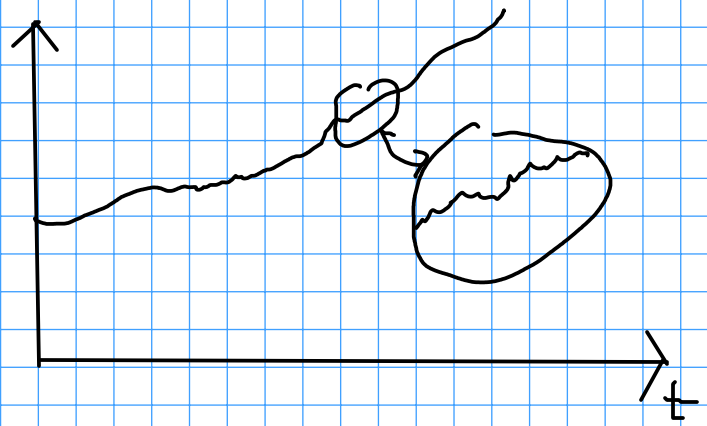
$\dot{N} = \lambda N$

$\lambda = 1$

$\lambda = 0.4$

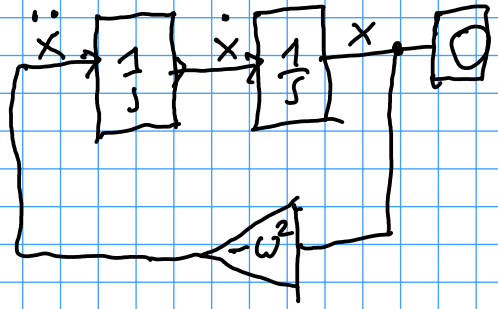


$N(t) = N_0 e^{\lambda t}$



$$\ddot{x} + \omega^2 x = 0 \quad \Rightarrow \quad \ddot{x} = -\omega^2 x$$

$$\omega^2 = 5$$



Van-der-Pol-DGL:

$$\ddot{x} - \mu(1-x^2)\dot{x} + x = 0$$

$$\ddot{x} = \mu(1-x^2)\dot{x} - x$$