

Logistic Growth

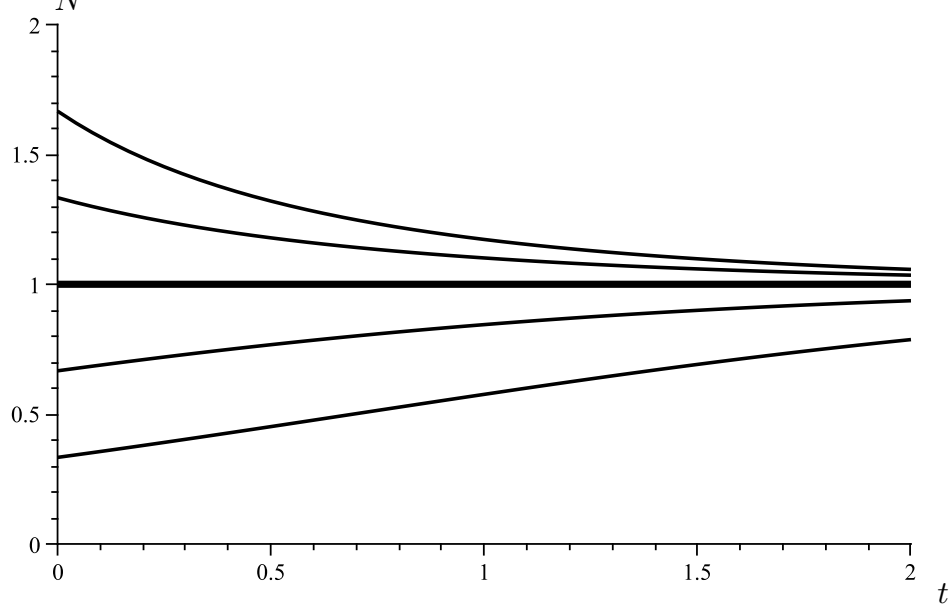
In class we found that the solution to the equation

$$\dot{N} = (k_0 - k_1 N)N$$

is

$$N(t) = \frac{k_0 N(0)}{k_1 N(0) + [k_0 - k_1 N(0)]e^{-k_0 t}}. \quad (1)$$

Here are some integral curves of the solution.



Graphs of (1) with $k_0 = k_1 = K = 1$. The thick line is the solution $N(t) \equiv K$.

