

Example 1:

First order kinetic process, $A \rightarrow B$:

Process rate proportional to concentration of A: $\frac{d}{dt} A = k \cdot A$

ODE Input:

Initial concentration: $A_0 := 0.2$

Output time step: $dt := 20$

Rate constant: $k := -0.005$

$D(t, A) := k \cdot A$ $t_{min} := 0$ $t_{max} := 400$

$N := \frac{t_{max} - t_{min}}{dt} = 20$

$A := \text{lsoda}(A_0, t_{min}, t_{max}, N-1, D)$

