## Problem S1 (Signals and Systems)

1. Find and plot the step response of the system

where $L_{1}=L_{2}=2 \mathrm{H}, R_{1}=2 \Omega$, and $R_{2}=3 \Omega$.
2. For the input signal

$$
u(t)= \begin{cases}0, & t<0 \\ 2, & 0 \leq t<1 \\ -1, & t \geq 1\end{cases}
$$

find and plot the output $y(t)$, using superposition.

