

Spice Homework #1

ELE504E, Spring 2025

1 DC Sweep

Write the netlist of the circuit given in Figure 1.1. Perform a DC-Sweep for the voltage source V_1 from 0V to 1V with 1mV steps. Plot $v(\text{out})$.

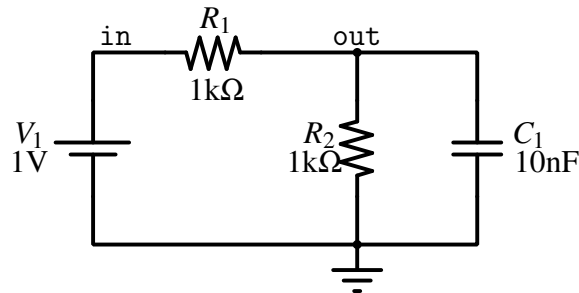
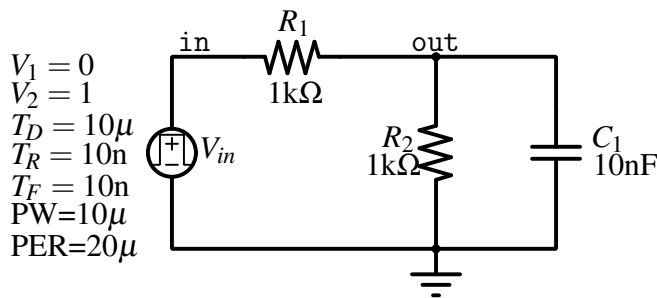


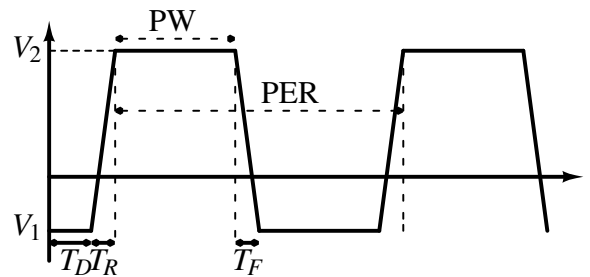
Figure 1.1. Simple R-C Network.

2 Transient Analysis

Replace the DC voltage source V_1 with the pulse voltage source V_{in} as shown in Figure 2.1(a). Perform a transient analysis with 100 ns timestep and 100 μ s stoptime. Plot $v(\text{in})$ $v(\text{out})$. You can review pulse voltage parameters using Figure 2.1(b).



(a)



(b)

Figure 2.1. a) Simple R-C Network. b) Pulse Voltage Parameters.

Take 2 screenshots (one for DC Sweep and the other for Transient Analysis) showing the netlist and the graph clearly. Combine your images in a single folder and upload the folder as a zipped-file format to ninova.