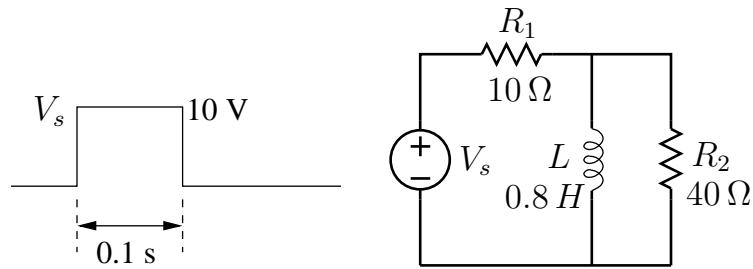


ee101_r11.sqproj



Shown in the figure is an RL circuit driven by a voltage pulse. Assume that the initial inductor current is zero.

Exercise Set

1. Obtain expressions for the inductor current and the voltage across R_2 . Verify your results with simulation.
2. How will the inductor current transient change if
 - (a) R_1 is changed from 10 Ω to 40 Ω ?
 - (b) R_2 is changed from 40 Ω to 20 Ω ?
 - (c) L is changed from 0.8 H to 2.0 H?
 - (d) The high level of V_s is changed from 10 V to 5 V?

Verify with simulation.