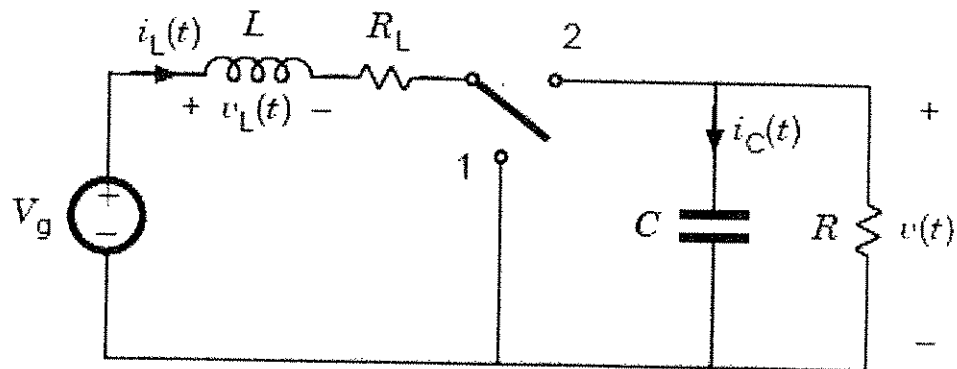(2) Now consider the following more complicated circuit with the switch placed after the inductor L:

- Assume that that the switch is controlled similarly as in the previous case. Ignore R_L for now (which models the loss of the inductor L). Draw the waveform of $v(t)$ from time 0 to its steady-state value.

- Perform a steady-state DC analysis to find out the relationship between the DC component of output voltage $v(t)$ and input voltage V_g. How is the steady-state average output voltage influenced by R_L and D?