**Transient state - homework**

1. Initially, the switch is closed. Determine the current variation i1 and the voltage across the coil 2L.

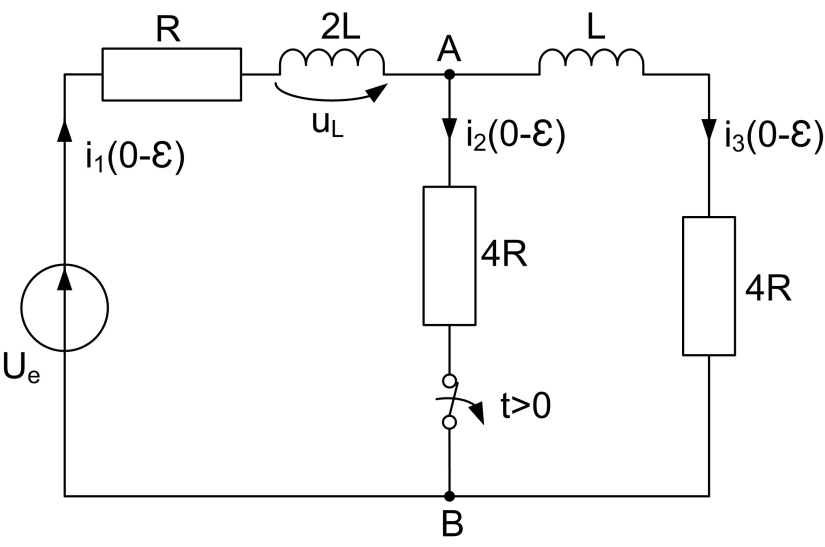


Fig. 1

2. Initially the switch is closed. Determine the current variation i(t) and the voltage across the capacitor uC(t).

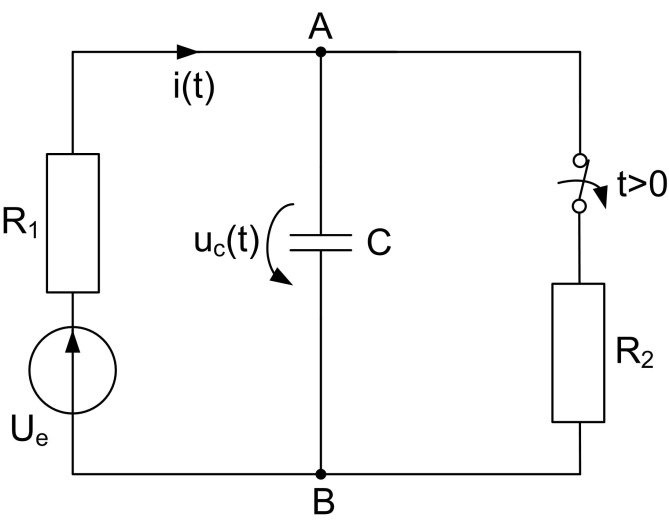


Fig. 2

3. Initially the switch is opened. Determine the current variation i(t) and the voltage variation across the coil uL.

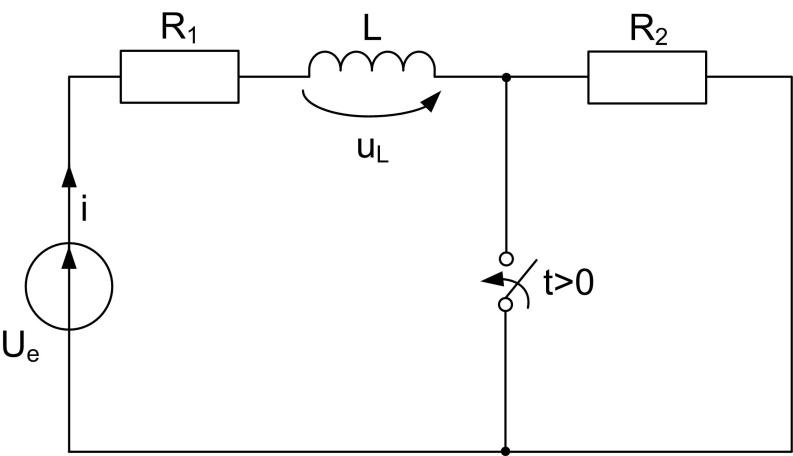


Fig. 3

4. The contact opens at t=0. Determine the variation in time of the current i(t) and the variation of the voltage across the capacitor uC(t).

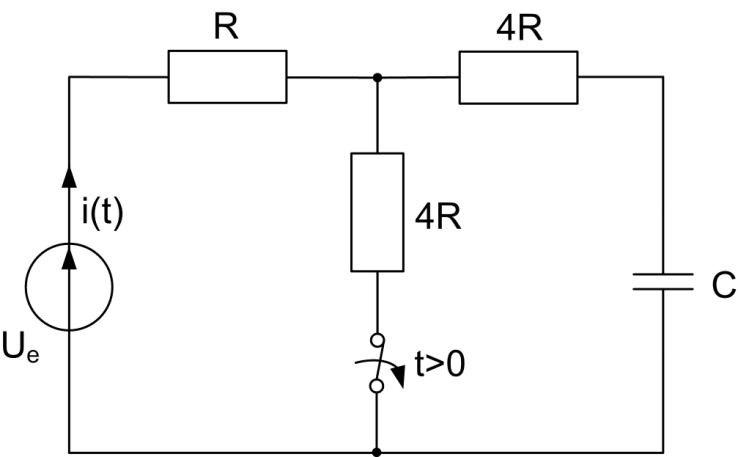


Fig. 4