

Indian Institute of Technology, Delhi
ELL112/EEL 202: Circuit Theory
Tutorial 4, August 22, 2014

1. Analyze the circuits in Fig. 1 and in Fig. 2. Evaluate the voltage across the 8 F capacitor in Fig. 1, and the current through the 8 H inductor in Fig. 2. Is there some similarity between the two circuits?
2. After remaining open for a long time, the switch in Fig. 3 is closed at time $t = 0$. At what time after $t = 0$ is $i(t)$ the maximum in magnitude?
3. The switch in Fig. 4 is closed after a long time, at $t = 0$. Find $i(t)$ for $t > 0$.

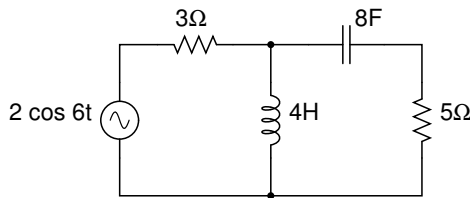


Figure 1

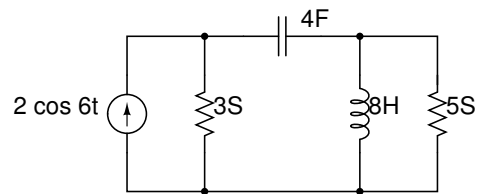


Figure 2

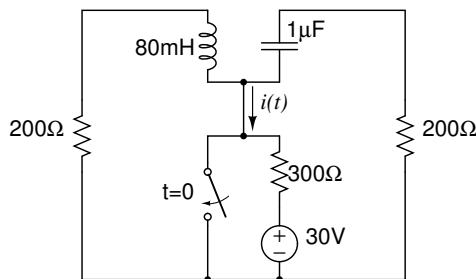


Figure 3

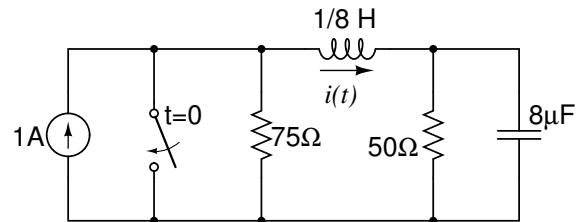


Figure 4