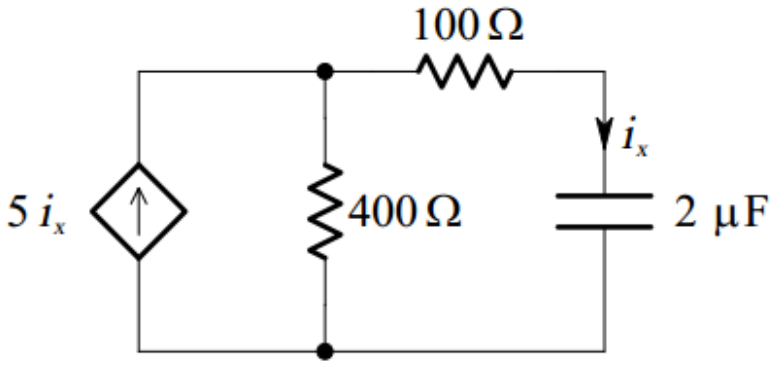
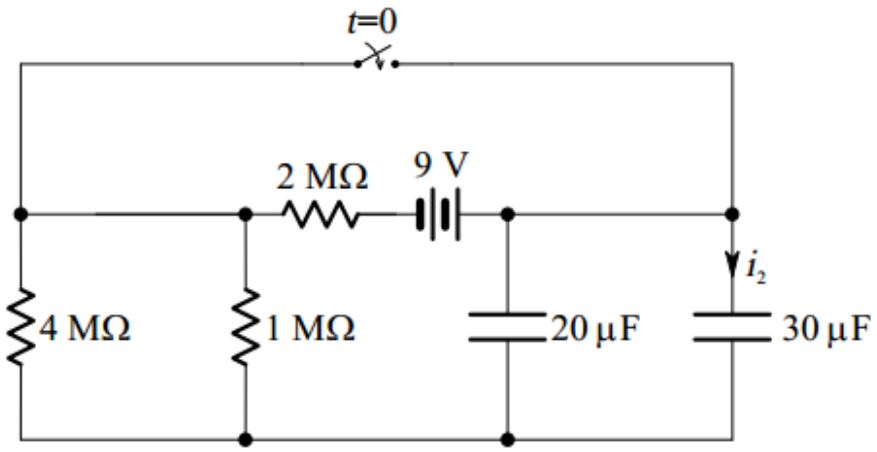
Consider the circuit shown below:



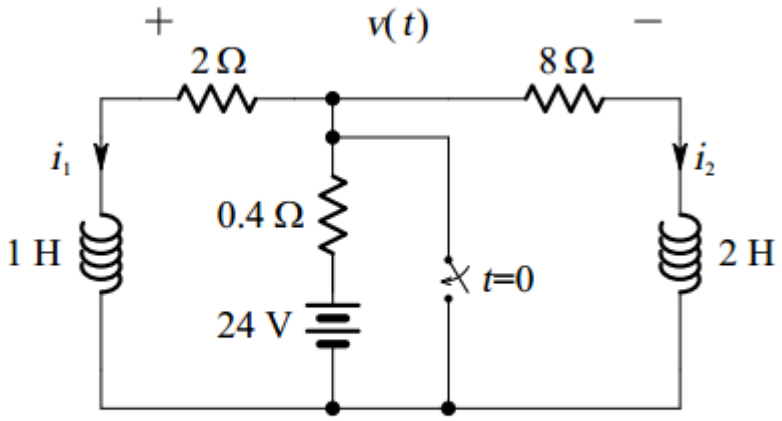
If $i_x(0^+) = 3$ mA, find $i_x(t)$ for $t > 0$.

Consider the circuit shown below:



The switch closes at $t = 0$. Find $i_2(t)$ for $t > 0$.

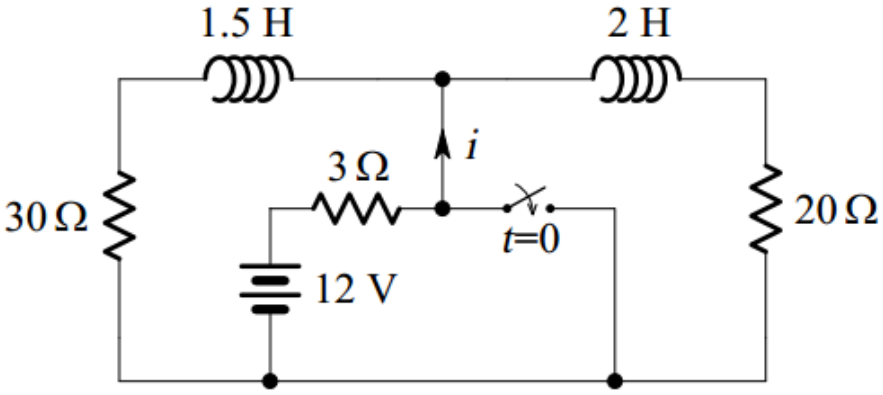
Consider the circuit shown below:



Find:

(a) $i_1(0)$ (b) $i_2(0)$ (c) $i_1(t),\ t>0$ (d) $i_2(t),\ t>0$ (e) $v(t),\ t>0$

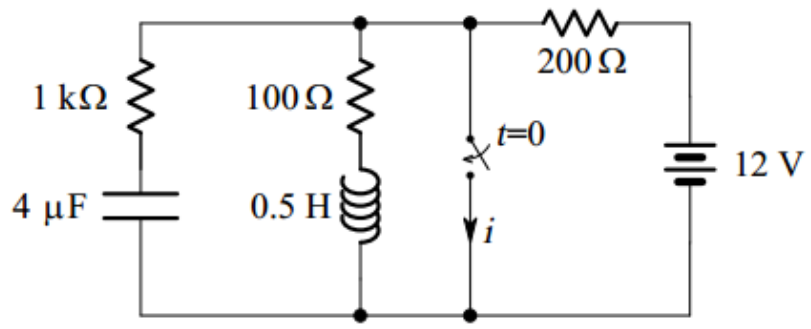
The switch in the circuit shown below has been open for a long time.



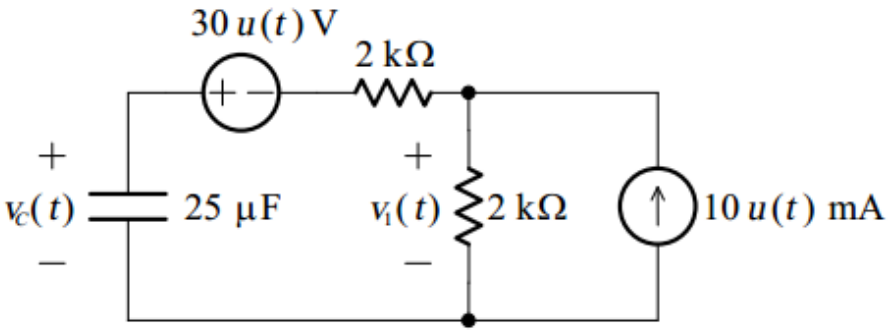
Find i at $t=$:

(a) -0.08 s (b) +0.08 s

The switch in the circuit shown below has been open for a long time.



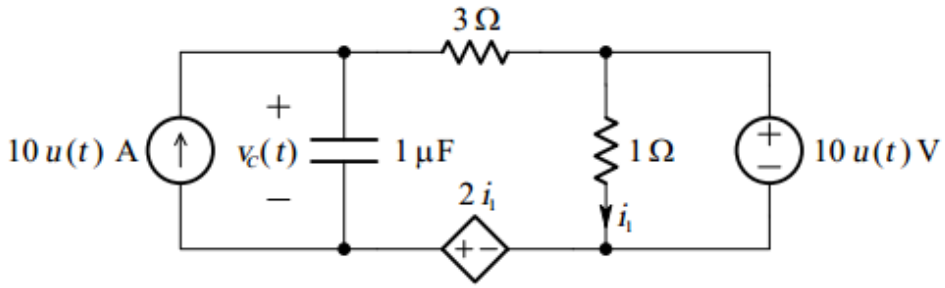
It closes at $t = 0$. Find $i(t)$.



Find $v_C(t)$ and $v_1(t)$.

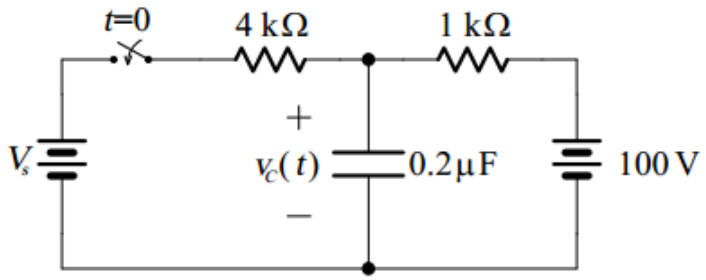
3.

Consider the circuit shown below:



Find $v_C(t)$.

After being open for several minutes, the switch in the circuit below closes at $t = 0$.

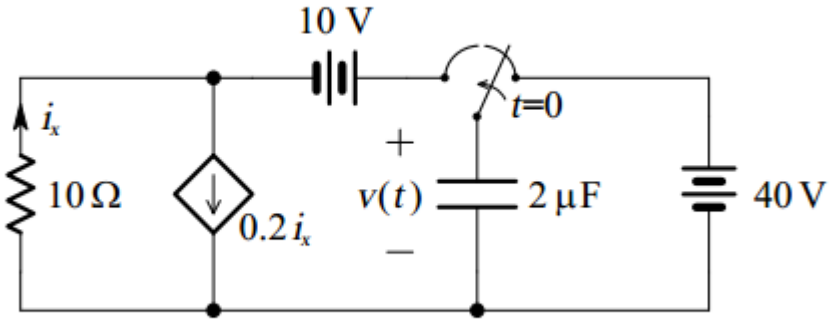


Find $v_C(t)$ for all t if $V_s =$:

(a) -200 V

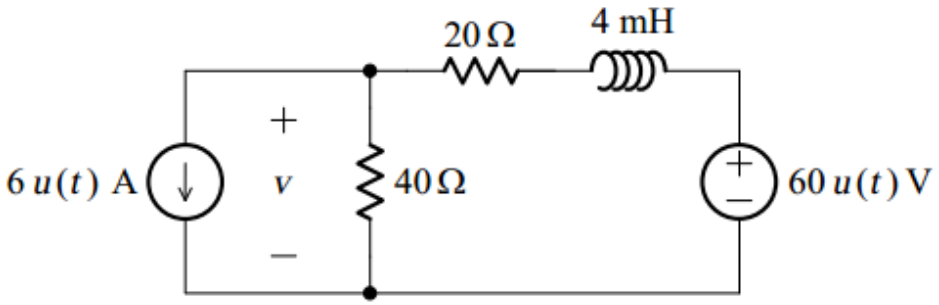
(b) +100 V

Consider the circuit shown below:



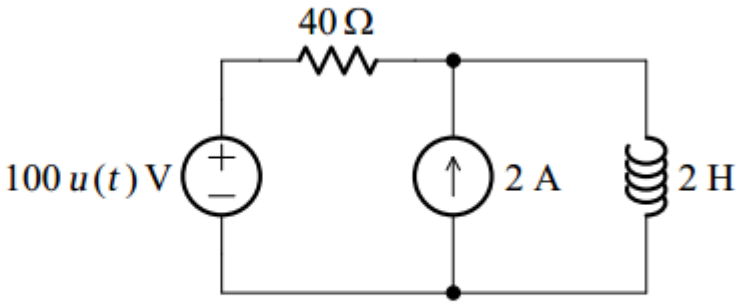
Find $v(t)$ for $t > 0$.

Consider the circuit shown below:



Find v as a function of time.

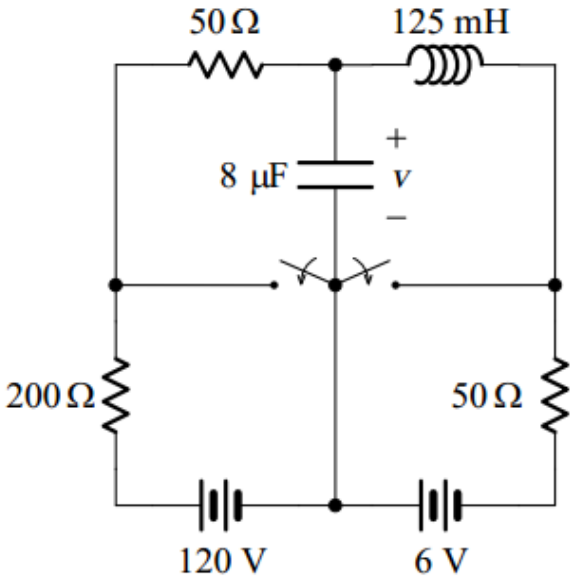
Consider the circuit shown below:



Find the power being absorbed by the inductor at $t =$:

(a) 0^- (b) 0^+ (c) 0.05 (d) ∞

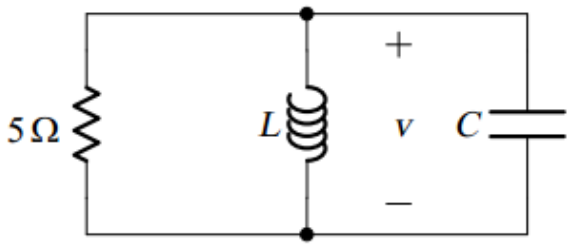
Consider the circuit shown below:



Both switches close at $t = 0$ after having been open for a very long time.

(a) Find $v(t)$.

Consider the circuit shown below:

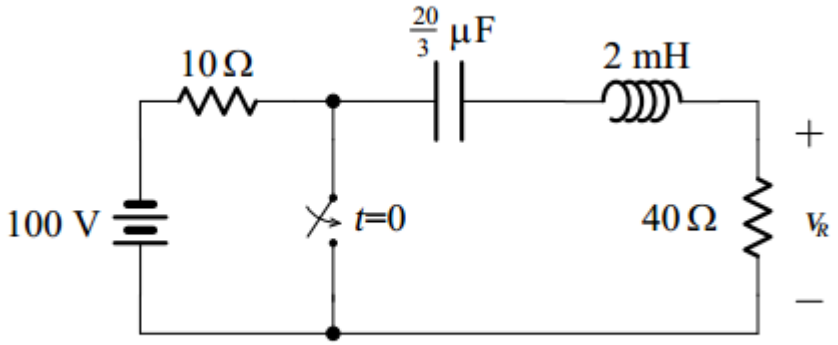


The voltage is given by $v(t) = e^{-7t}(20\cos 24t + 5\sin 24t)$ V for $t \geq 0$. Find:

(a) L and C.

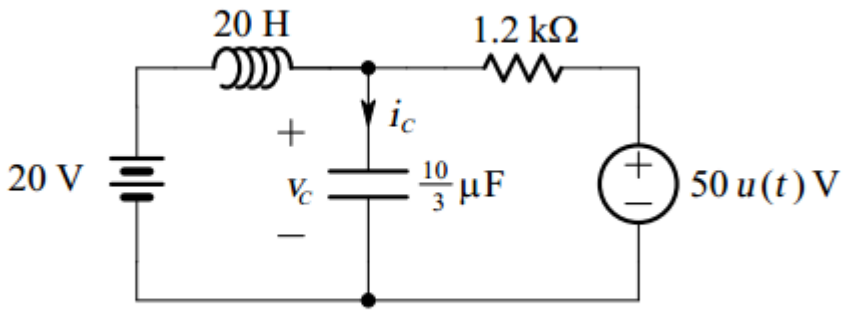
(b) The initial energy stored in the circuit.

Consider the circuit shown below:



The switch closes at $t = 0$. Find $v_R(t)$.

Consider the circuit shown below:



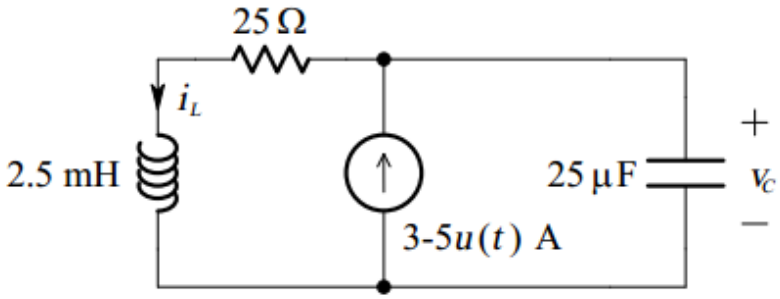
Find the following values:

$I_L(0^-)$, $V_L(0^-)$, $I_R(0^-)$, $V_R(0^-)$, $I_c(0^-)$, $V_c(0^-)$.

$I_L(0^+)$, $V_L(0^+)$, $I_R(0^+)$, $V_R(0^+)$, $I_c(0^+)$, $V_c(0^+)$.

$I_L(\infty)$, $V_L(\infty)$, $I_R(\infty)$, $V_R(\infty)$, $I_c(\infty)$, $V_c(\infty)$.

Consider the circuit shown below:



Find the following values:

$I_L(0^-)$, $V_L(0^-)$, $I_R(0^-)$, $V_R(0^-)$, $I_c(0^-)$, $V_c(0^-)$.

$I_L(0^+)$, $V_L(0^+)$, $I_R(0^+)$, $V_R(0^+)$, $I_c(0^+)$, $V_c(0^+)$.

$I_L(\infty)$, $V_L(\infty)$, $I_R(\infty)$, $V_R(\infty)$, $I_c(\infty)$, $V_c(\infty)$.