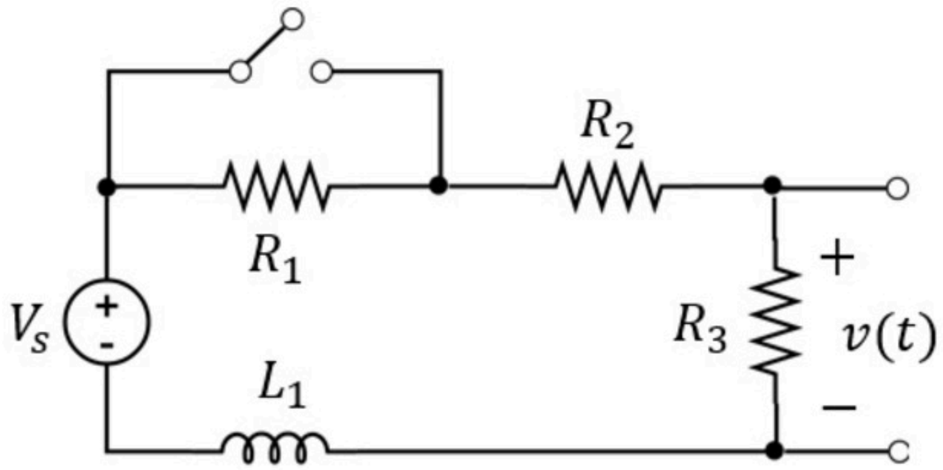
First order circuits 007

Problem has been graded.

The switch closes at time $t = 0$ and we measure

$$v(t) = 24 - 12e^{-t/2\,\mu s}\ \text{V} \qquad \text{for } t > 0$$

Find the values of R_1, R_2, and L_1.



Given Variables:

Vs : 48 V

R3 : 12 kohm

Calculate the following:

R1 (ohm) :

24000 ✓

R2 (ohm) :

12000 ✓

L1 (H) :

0.048 ✓

Hint: Consider v(inf) first. Mind the units.