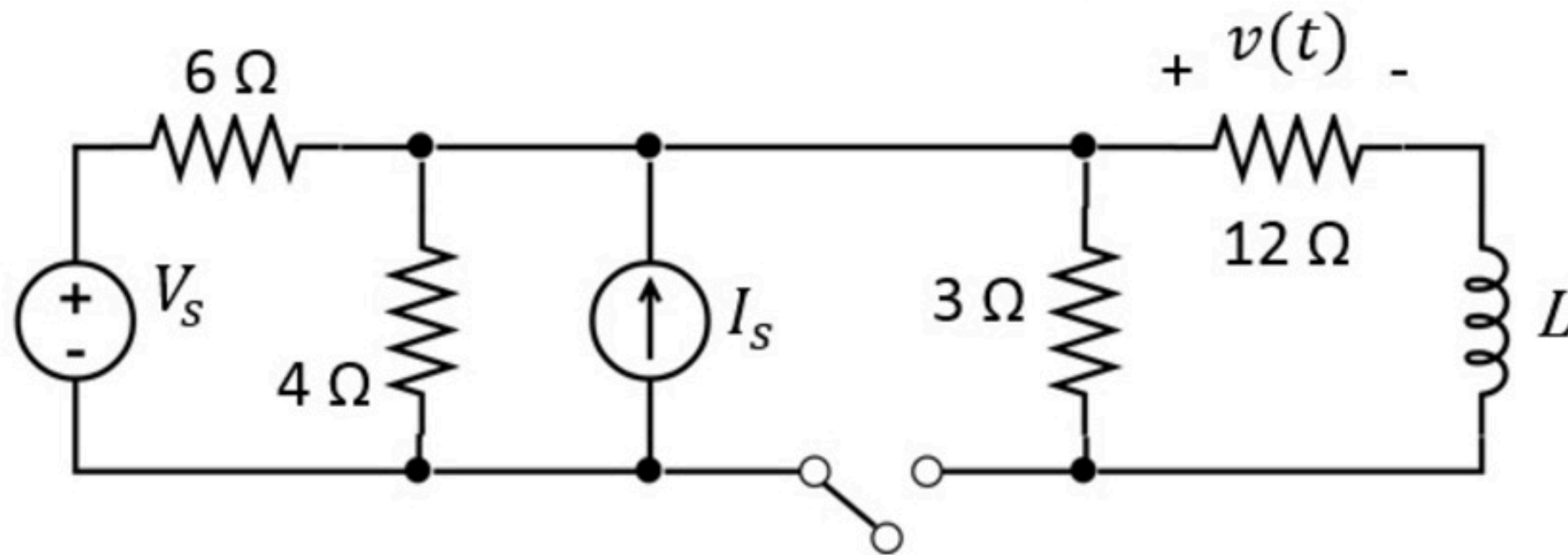


# First order circuits 005

Problem has been graded.

The switch has been closed for a long time before it opens at  $t = 0$ . After the switch opens, find the resistor voltage  $v(t) = A \cdot e^{-t/\tau} + B$ .



Given Variables:

$V_s$  : 28 V

$I_s$  : 2 A

$L$  : 1.5 mH

Calculate the following:

A (V) :

8



B (V) :

0



$\tau$  (ms) :

0.1



Hint: What is the current  $i_L$  for  $t < 0$ ?