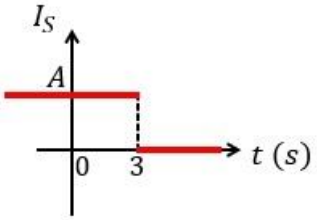
Q1

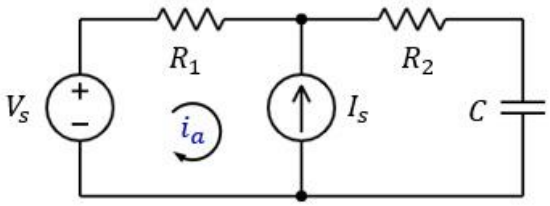
The current source I_s changes from *A* to 0 at t = 3 s, as shown on the right. For t < 3 s, you may assume the system has reached steady state. The current i_a is a mesh current.



(a) Find $i_a(3^-\ \text{s})$.

(b) Find $i_a(t)$ for t > 3 s. Write the equation.

R1:	1 Ω
R2:	2 Ω
Vs:	2 V
A:	6 A
C:	2 pF



Q2

For t < 0 s, the switch is open, and you may assume the system has reached steady state. The switch closes at time t = 0 s and opens again at time t = 4 s.

(You can leave your answer written as a function of *e*)

(a) Find $i_a(2\ \text{s})$.

(b) Find $i_a(7\ \text{s})$.

Vs:	4 V
R1:	2 Ω
L:	4 H