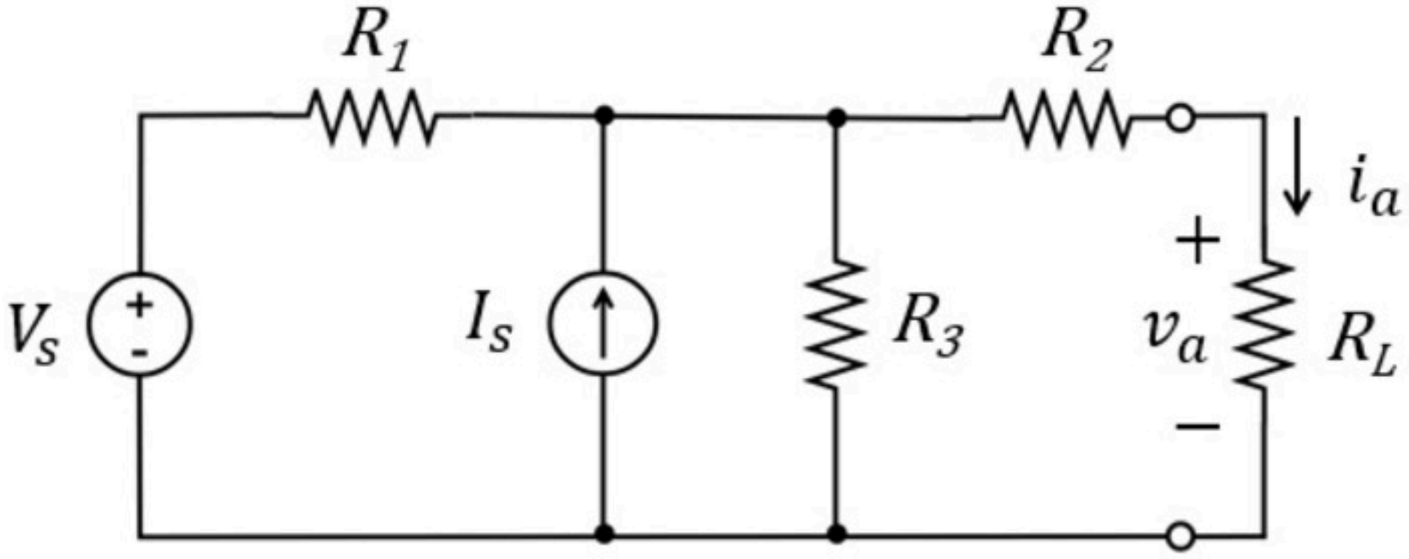
Circuit theorems 010

Unlimited Attempts.

Find (and think about how to minimize your calculations)

1. The value of $v_a = v_{a1}$ when R_L= 12 Ω
2. The value of $R_L = R_{L2}$ that results in v_a = 4 V
3. The value of $R_L = R_{L3}$ that results in i_a = 1 A



Given Variables:

Vs : 12 V

Is : 1 A

R1 : 6 ohm

R2 : 8 ohm

R3 : 12 ohm

Calculate the following:

va1 (V) :

RL2 (ohm) :

RL3 (ohm) :

> Hint: Find the Thevenin model of the circuit (without RL) first