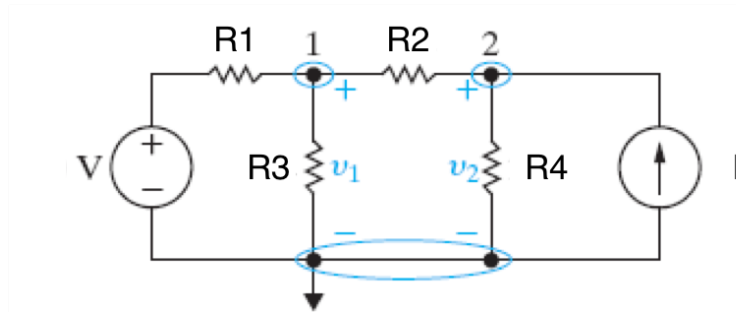


Question 1 [10]

Consider the the following circuit below.



- (i) Directly on the figure, identify (draw in) the different currents flowing through the different parts of the circuit.
- (ii) Apply the KCL to the top left node labelled “1” and write down the resulting equation using the currents you introduced in (i).
- (iii) Now perform a KVL around the left most loop and write down the equation in terms of the source voltage, the voltage drop across resistor R_1 , and the voltage labelled v_1 .
- (iv) For you answer in (iii) solve for the current flowing through R_1 .