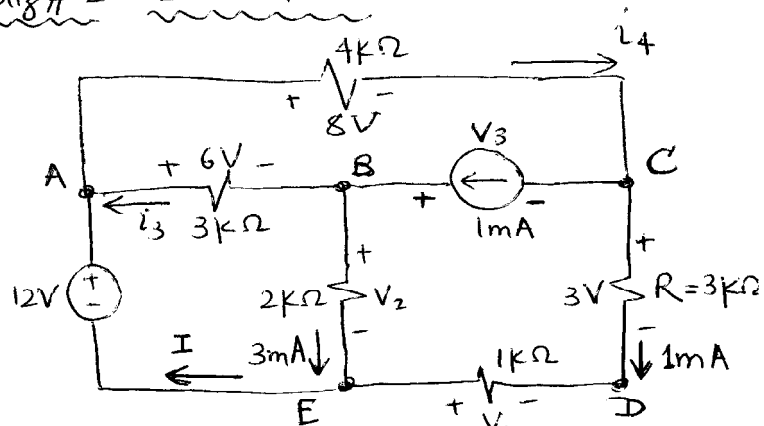


Quiz #1 EE-204

Name :

ID# :



@ Find V_1, V_2, V_3, i_3, i_4 using KCL & KVL only.

Apply KVL in outer loop ACDEA.

$$8 + 3 - V_1 - 12 = 0 \Rightarrow \boxed{V_1 = -1V}$$

Apply KVL in loop ABEA

$$6 + V_2 - 12 = 0 \Rightarrow \boxed{V_2 = 6V}$$

Apply KVL in loop BCDEB

$$V_3 + 3 - V_1 - V_2 = 0 \Rightarrow \boxed{V_3 = 2V}$$

Apply KCL at E

$$I = 3 + 1 \Rightarrow I = 4 \text{ mA}$$

Apply KCL at B

$$i_3 + 3 = 1 \Rightarrow \boxed{i_3 = -2 \text{ mA}}$$

Apply KCL at A

$$i_3 + I = i_4 \Rightarrow \boxed{i_4 = 2 \text{ mA}}$$