Homework for Analogue Electronics

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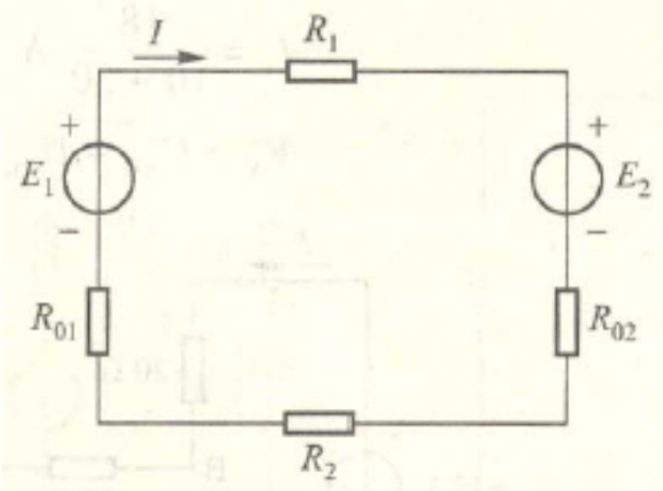
E1－5　在题图 E1－5 所示电路中，已知：$I=2$ A，$E_1=48$ V，$R_{01}=R_{02}=0.5\ \Omega$，$R_1=6\ \Omega$，$R_2=5\ \Omega$。求 E_2 的大小和方向，并说明在这个电路中哪个电源是吸收功率的，哪个电源是输出功率的。



题图 E1－5

Solution According to KVL:

$$-IR_1-E_2-IR_{02}-IR_2-IR_{01}+E_1=0$$

$$-IR_1-IR_{02}-IR_2-IR_{01}+E_1=E_2$$

$$E_2=-12-1-10-1+48=24\ \text{V}$$

From the current direction, which is clock-wised, we can know that E_1 is providing power, E_2 is consuming power.