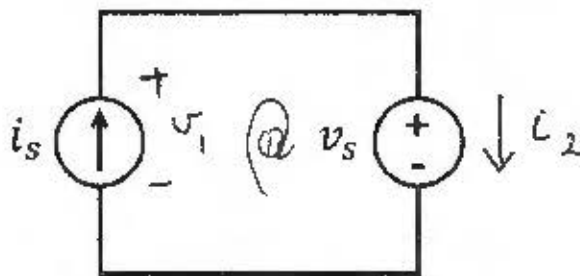


Find the power P_1 supplied by the current source and the power P_2 supplied by the voltage source.

$$V_s = 10 \text{ V}$$

$$I_s = 4 \text{ A}$$



$$\text{KVL } \textcircled{1} : v_1 = v_s = 10 \text{ V}$$

$$\text{KCL} : i_2 = i_s = 4 \text{ A}$$

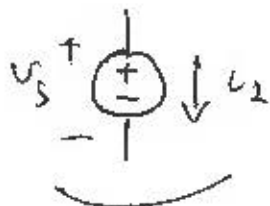


for passive
sign convention

$$P_1 = v_1 \cdot i = 10 (-4) = -40 \text{ W} \text{ received}$$

$$i = -i_s = -4 \text{ A}$$

$$P_1 = 40 \text{ W supplied}$$



already passive
sign convention

$$P_2 = v_s \cdot i_2 = 10 \cdot 4 = 40 \text{ W received}$$

$$P_2 = -40 \text{ W supplied}$$

$$\text{Check: } \sum P_{\text{received}} = \sum P_{\text{supplied}} \Rightarrow 0 = 40 - 40$$

OK