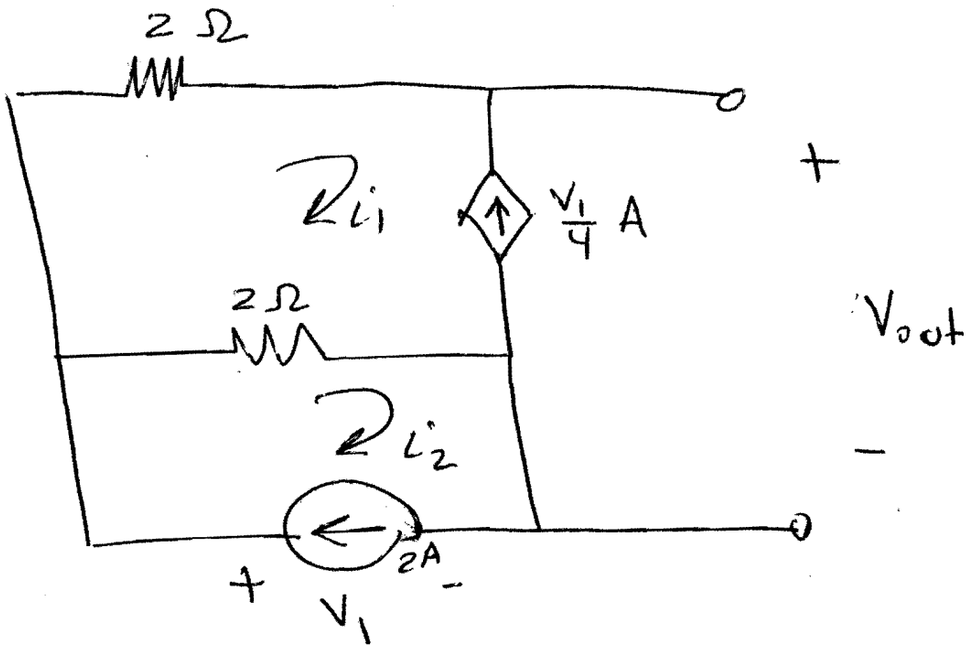


$i_2 = 2\ A$ (by inspection).

$$i_1 = -\frac{V_1}{4} = -\frac{1}{4}\left[2(i_2 - i_1)\right]$$

$$i_1 = -\frac{1}{4}\left[2(2 - i_1)\right]$$

$$= -\frac{1}{2}\left[2 - i_1\right] = \frac{1}{2}\left[i_1 - 2\right]$$

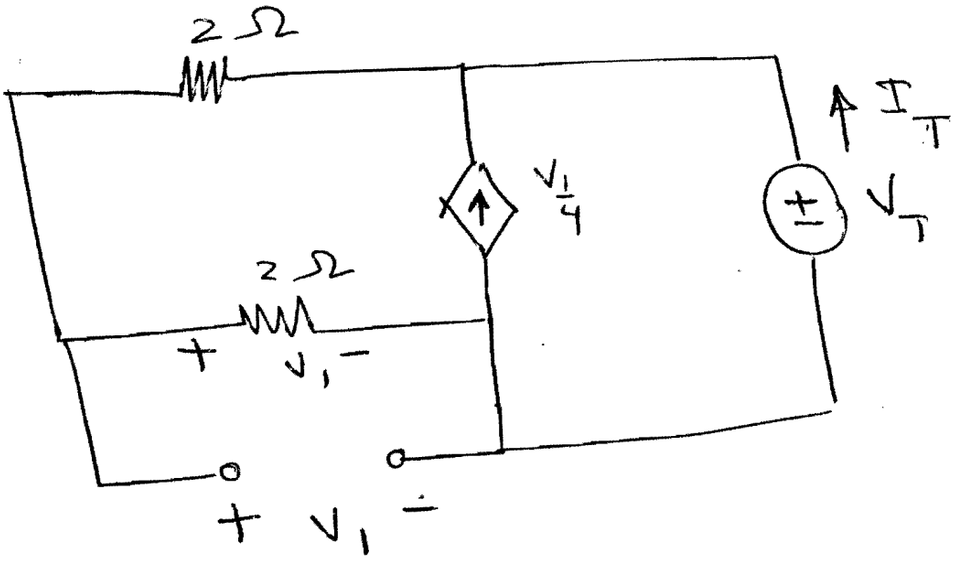
$$2i_1 = i_1 - 2 \Rightarrow \boxed{i_1 = -2\ A}$$

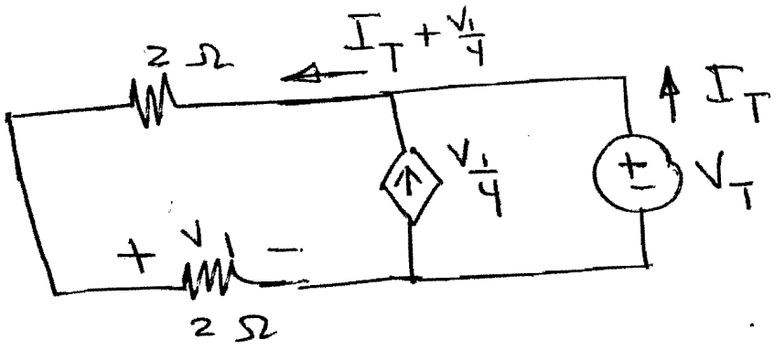
KVL $\quad V_{out} - V_1 + 2i_1 = 0$

$$V_{out} = V_1 - 2i_1 = 2(2+2) - 2(-2)$$

$$= 8 + 4 = \boxed{12\ V}$$

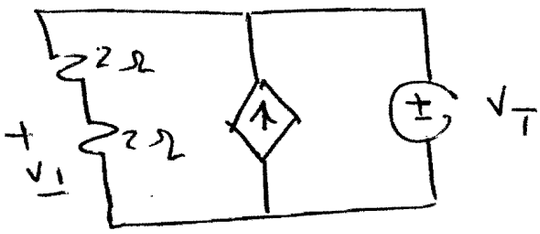
Finding R_{th}





$$V_1 = 2\left(I_T + \frac{V_1}{4}\right) \Rightarrow V_1 = 4I_T$$

however since $V_1 = \frac{V_T}{2}$ (voltage division)



$$\Rightarrow \frac{V_T}{2} = 4I_T \Rightarrow \frac{V_T}{I_T} = (4)(2) = 8\,\Omega$$