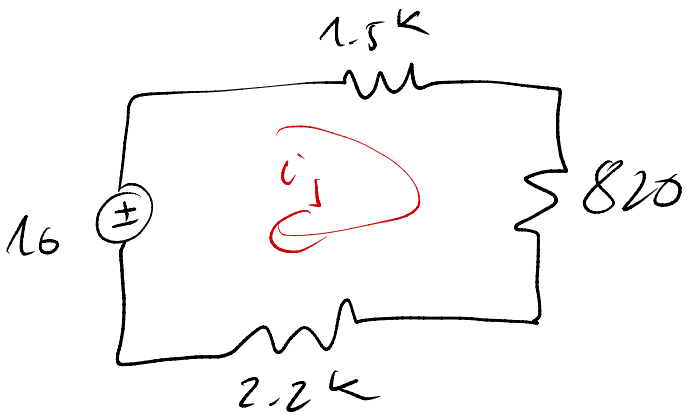
$$R_{eq} = 4650.9265\,\Omega$$

$$I_S = \frac{16\,V}{R_{eq}} = 3.44\,mA$$



KVL: $-16 + 1500 i_S + 820 i_S + 2200 i_S = 0$

$\Rightarrow i_S \cong 3.540\,mA$

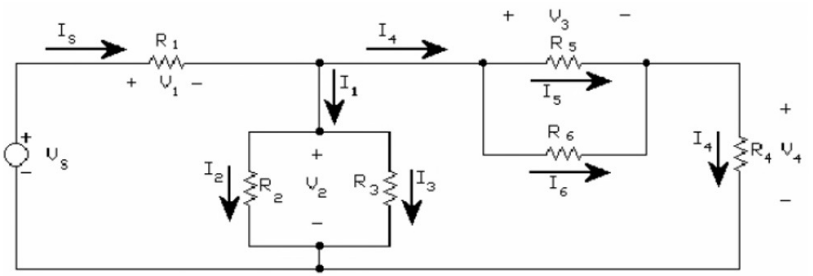
$V_1 = i_S R_1 = 5.310$

$$\% \text{ Diff} = \left| \frac{\text{Calculated} - \text{Measured}}{\text{Calculated}} \right| \times 100\%$$

$$\begin{cases} i_1 = 5.054 \text{ mA} \\ i_2 = 2.566 \text{ mA} \\ i_3 = 1.403 \text{ mA} \end{cases}$$

$$V = 5600 (i_2 - i_3)$$

$$= -13.94 \text{ V}$$



$I_5 = 12.12\,mA \quad I_5 = 8.144\,mA$

$I_4 = 7.407\,mA$

$V_1 = 9.773$

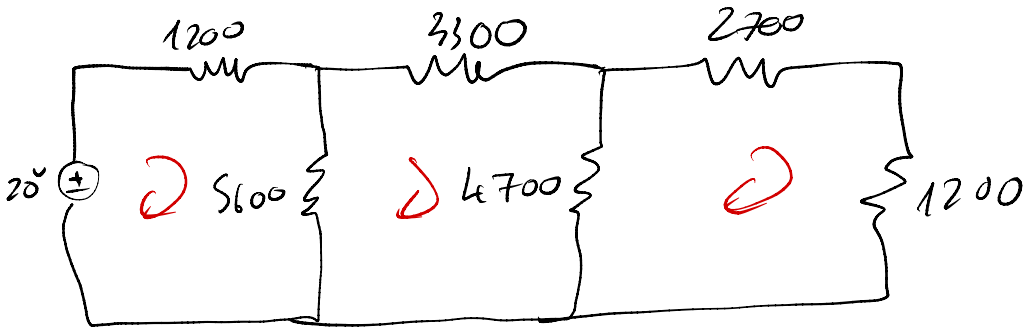
$$\frac{V - 20}{1200} + \frac{V}{1650} + \frac{V}{(R_5 \,//\, R_6) + R_4}$$

$$V = 10.23\,V$$

2 - 9

3 - 11

4 - 15



$$-20 + 1200\, i_a + 5600(i_a - i_b) = 0$$

$$5600(i_b - i_a) + 3300\, i_b + 4700(i_b - i_c) = 0$$

$$4700(i_c - i_b) + 3900\, i_c = 0$$

$$i_1 = 5.054\ mA$$

$$i_2 = 2.57\ mA$$

$$i_3 = 1.40\ mA$$

$$P_1 = 1.197$$

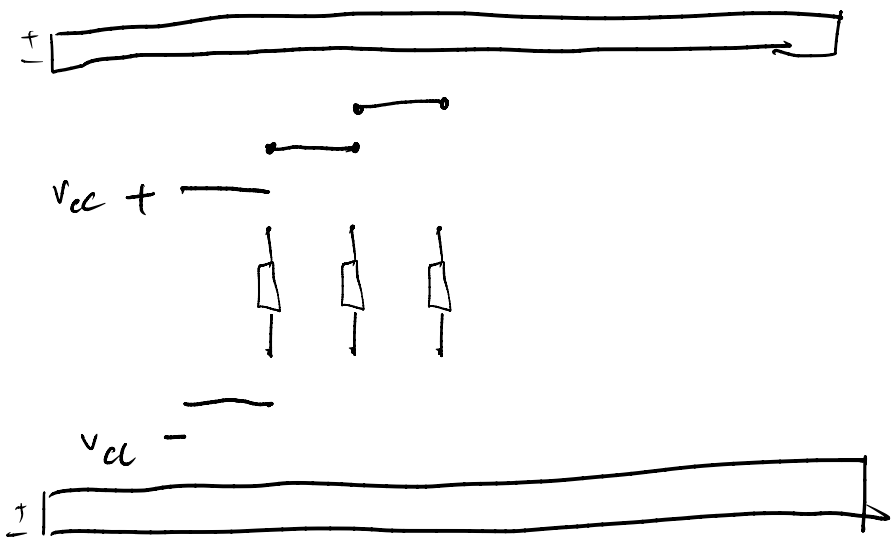
$$R_2 = 3.291$$

$$R_3 = 3.288$$

$$R_4 = 2.696$$

$$R_5 = 5.579$$

$$R_6 = 4.660\ k\Omega$$


+
−
V_{cc} +
V_{cc} −
+
−