



KVL 1

$$100 - 25000 i_1 - 625 i_1 - 625 \cdot 10^{-3} V_2 = 0$$

$$100 - 8750 i_1 = 625 \cdot 10^{-3} V_2$$

KVL 2

$$5000 i_1 = V_2 + 6000 \cdot 10^{-3} \cdot \frac{V_2}{6} \cdot 10^{-3}$$

$$5000 i_1 = V_2 \left( 1 + \frac{4}{6} \right) \cdot 10^{-3}$$

$$\frac{6 \cdot 5000 i_1}{10} = 1.66 V_2$$

$$3000 i_1 = V_2$$

$$100 - 8750 i_1 = 625 \cdot 10^{-3} \cdot 3000 i_1$$

$$100 = i_1 \left( \frac{625 \cdot 3000}{1000} + 8750 \right)$$

$$i_1 = \frac{100}{2750} = 0,036 A$$

$$V_{th} = V_2 = 109,09 V$$