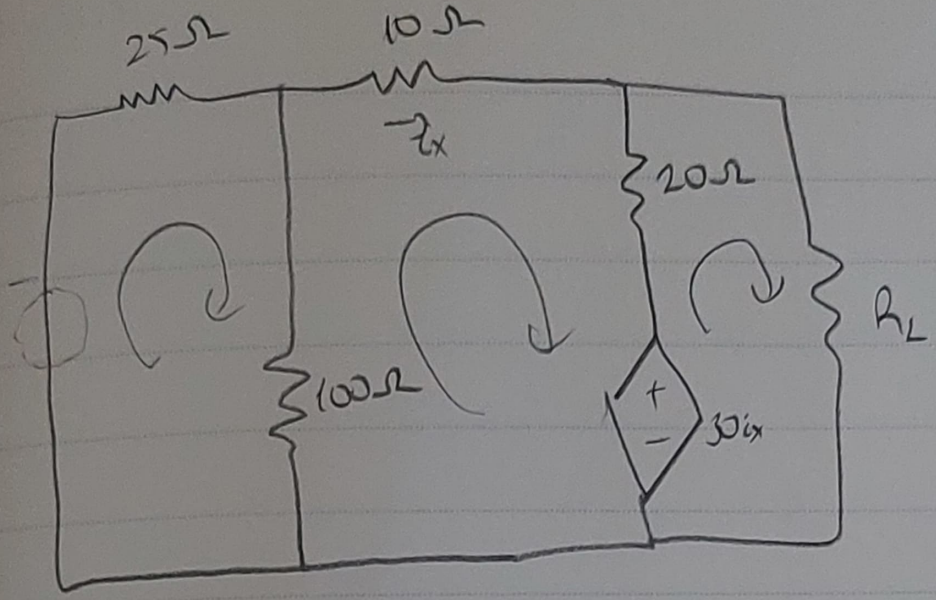
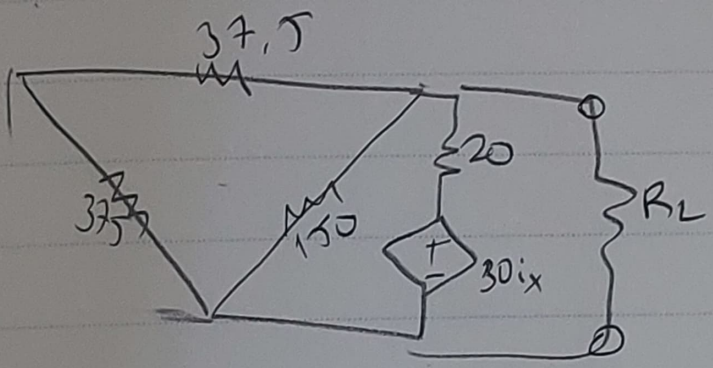
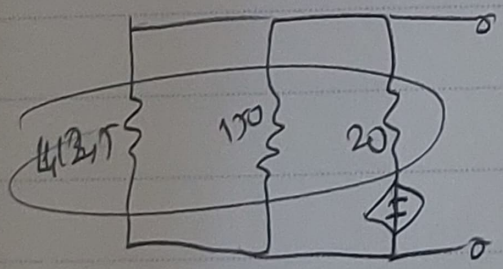




Rth



$412,5 // 150 // 20 = 16,949\ \Omega$

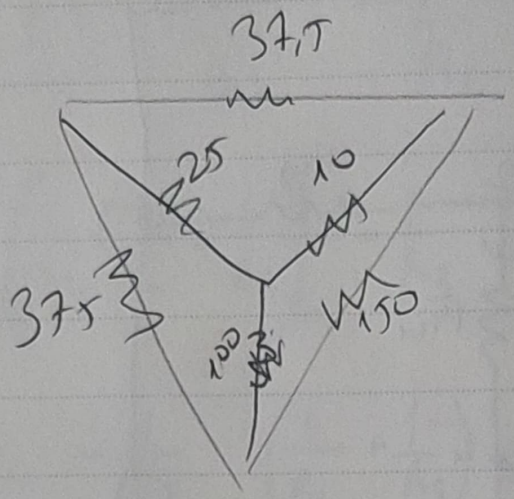
Vth

$$-200 + 25 i_1 + 100(i_1 - i_x) = 0$$

$$125 i_1 - 100 i_x = 200$$

$$30 i_x + 100(i_x - i_1) + 10 i_x = 0$$

$$140 i_x - 100 i_1 = 0$$



$$\frac{250 + 1000 + 2500}{100}$$

$$\frac{3750}{100} = 37,5$$

$$\frac{3750}{25} = 150$$

$$-30 i_x + 20(-i_x) + V_{th} = 0$$

$$V_{th} = 30 i_x \qquad V_{th} = 30 \cdot \frac{8}{3} = 80V$$

$$25 i_1 + 40 i_x = 200$$

$$i_1 = 8 - \frac{40}{25} i_x$$

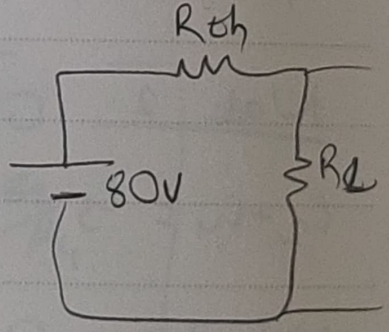
$$140 i_x = 100\left(8 - \frac{40}{25} i_x\right)$$

$$140 i_x = 800 - \frac{100 \cdot 40}{25} i_x$$

$$300 i_x = 800$$

$$i_x = \frac{8}{3} A$$

$R_L = R_{th} = 16,898\Omega$



$$I = \frac{80}{33,898}$$

$$I = 2,36$$

$$P_{max} = I^2 R = 94,399 W$$