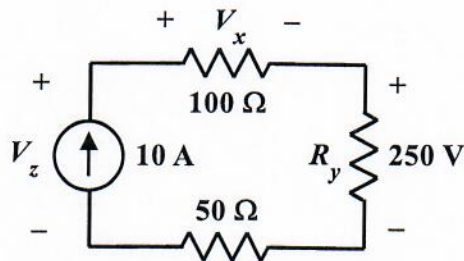


EE/EET 2240
Homework Problem #005

For the circuit shown below:



- a. Determine the value of V_x .

$$V_x = (100\Omega)(10A) = 1kV$$

- b. Determine the value of R_y .

$$R_y = \frac{250V}{10A} = 25\Omega$$

- c. Determine the value of V_z .

$$\begin{aligned} V_z &= V_x + 250V + (50\Omega)(10A) \\ &= 1000V + 250V + 500V = 1750V \end{aligned}$$

- d. How much power does R_y absorb?

$$(250V)(10A) = 2500W$$

- e. How much power does the independent current source deliver?

$$V_z(10A) = 17.5kW$$