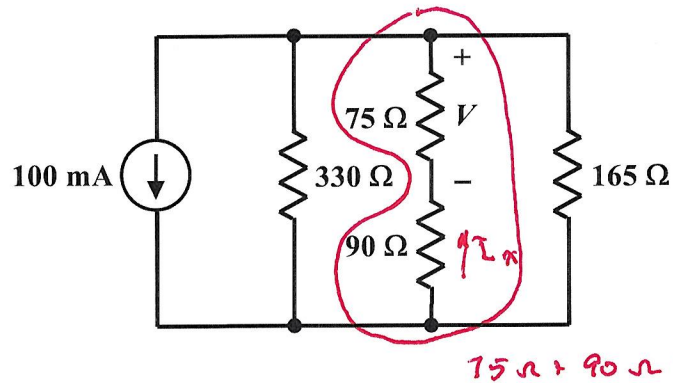


EE 2240  
Homework Problem #014



Determine the value of  $V$ .

$$\begin{aligned} I_{\pi} &= \frac{\frac{1}{165}}{\frac{1}{330} + \frac{1}{165} + \frac{1}{165}} \cdot 100 \text{ mA} = \frac{2}{1+2+2} \cdot 100 \text{ mA} \\ &= \frac{2}{5} \cdot 100 \text{ mA} = 40 \text{ mA} \end{aligned}$$

$$\begin{aligned} V &= -(75 \Omega) I_{\pi} = (-75)(40 \times 10^{-3}) \\ &= -3 \text{ V} \end{aligned}$$