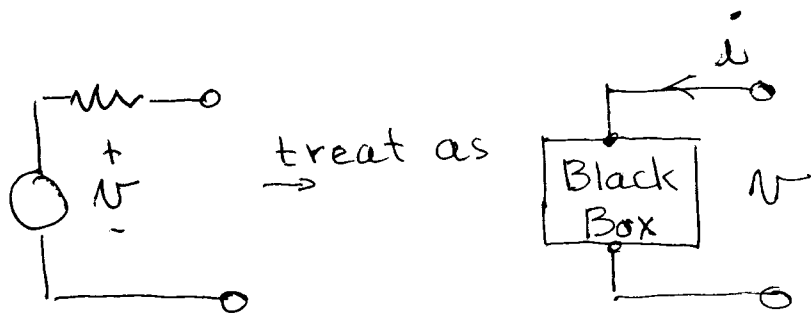
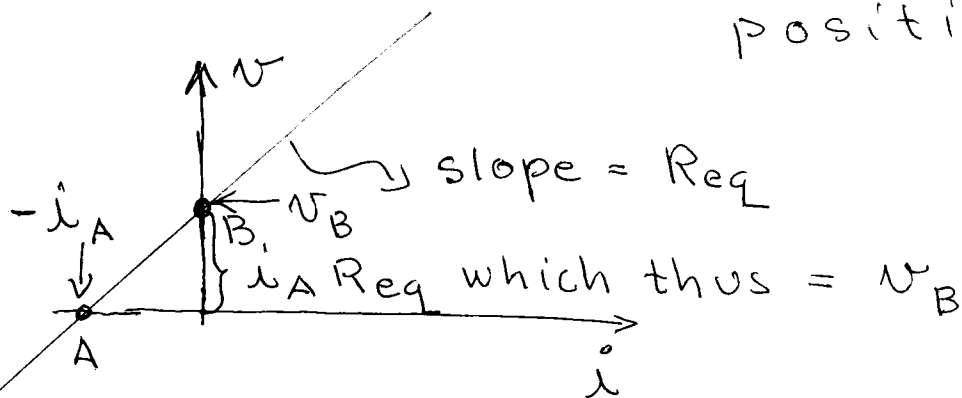


Thevenin And Norton



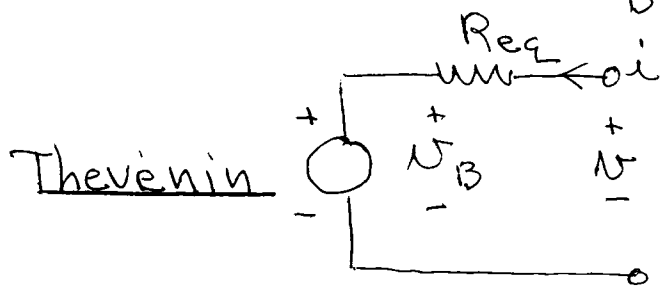
Assume Linear - Any resistance is positive



consider the inter sections with the two axes.

1) For B write = the open circuit voltage ($i=0$)

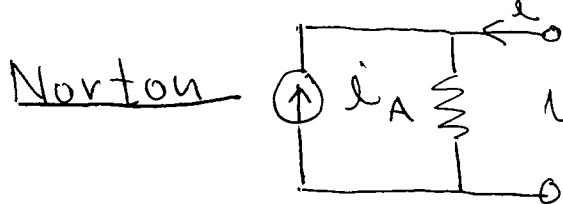
$$V = V_B + i R_{eq} \quad (1)$$



KVL
 $V = V_B + i R_{eq}$

2) For A write

$$i = -i_A + \frac{V}{R_{eq}}$$



KCL $\Rightarrow i = -i_A + \frac{V}{R_{eq}}$

(2) the short circuit current ($V=0$)

Also solving (2) for V gives $V = R_{eq} + R_{eq} i_A$

so (1) & (2) are equivalent