

P #1

Ch 18 - pg 578

$$\mathcal{E} = 9.00 \text{ V}$$

$$I = 117 \text{ mA} = 117 \times 10^{-3} \text{ A}$$

$$R = 72.0 \, \Omega$$

$$V_{\text{eq}} = I_{\text{eq}} \cdot R_{\text{eq}}$$

$$(9 \text{ V}) = (117 \times 10^{-3} \text{ A}) \cdot R_{\text{eq}}$$

$$R_{\text{eq}} = 76.9 \, \Omega$$

$$R_{\text{eq}} = r_{\text{(internal)}} + R_1$$

$$76.9 = r + (72 \, \Omega)$$

$$r = 4.92 \, \Omega$$

