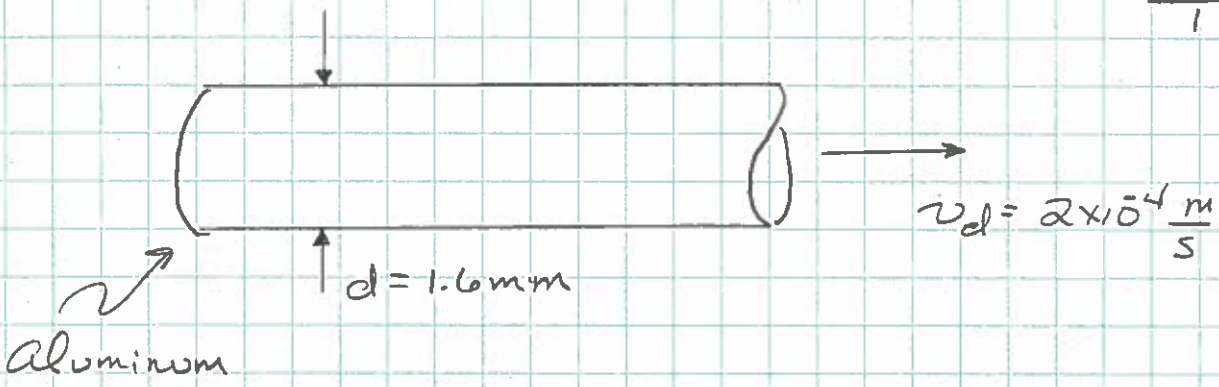

Electron current, $i = nAv_d = n\pi\left(\frac{d}{2}\right)^2 v_d$

for <u>aluminum</u>: $n = 18 \times 10^{28}\ m^{-3}$

So, $i = 7.239 \times 10^{19} \frac{e^-}{s}\left(\frac{3600\,s}{1\,h}\right)\left(\frac{24\,h}{1\,day}\right)$

$= \underline{6.254 \times 10^{24}}\ \underline{\frac{electrons}{day}}$