

- 4- Find the resistivity of intrinsic Germanium (Ge) at 300 k where $\mu_n = 3800 \text{ cm}^2/\text{V}\cdot\text{sec}$, $\mu_p = 1800 \text{ cm}^2/\text{V}\cdot\text{sec}$ and intrinsic concentration $1.6 \times 10^{19} \text{ m}^{-3}$.
- 5- For an electron mobility of $500 \text{ cm}^2/\text{V}\cdot\text{sec}$:
- Calculate the time between collisions. (Take $m_n = m_{no}$)
 - Calculate the distance an electrons travels by drift between collisions, for an electric field of $100\text{V}/\text{cm}$.

Good Luck ☺