

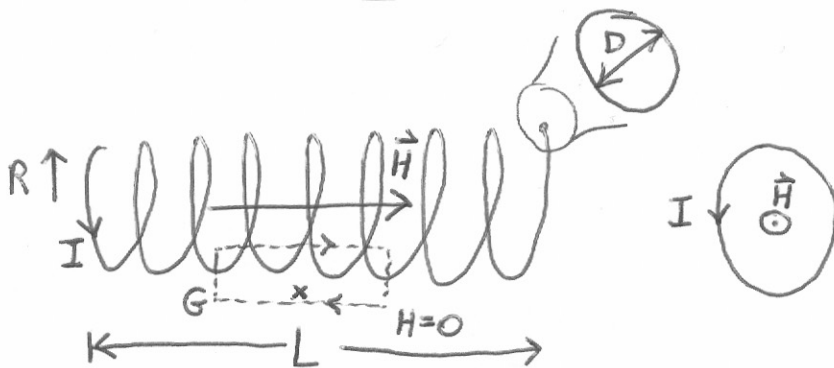
5.) $L = 15 \text{ cm}$ $N = 850$ $U = 20 \text{ V}$ $\cancel{N} \cdot 2R\pi = 6 \text{ cm}$ $D = 0,3 \text{ mm}$

$$R = \rho \frac{l}{A} \quad I = \frac{U}{R}$$

$$\rho = 0,0175 \Omega \text{ mm}^2 \text{ m}^{-1}$$

$$H = ?$$

$$\oint_G \vec{H} \cdot d\vec{s} = \sum I_i$$



$$R = \rho \frac{l}{A}$$

$$l = N \cdot 2R\pi$$

$$A = \left(\frac{D}{2}\right)^2 \pi$$

$$R = \rho \frac{N \cdot 2R\pi}{\left(\frac{D}{2}\right)^2 \pi} = \dots$$

$$I = \frac{U}{R} = \dots$$

Szolenoid belsejében
homogén tengely
irányába mutató \vec{H}

$$\left. \begin{aligned} \oint \vec{H} \cdot d\vec{s} &= Hx \\ \sum I_i &= N \frac{x}{L} I \end{aligned} \right\} Hx = N \frac{x}{L} I$$

$$H = \frac{NI}{L} = \dots$$