

8.) $B = 0,2 \frac{Vs}{m^2}$

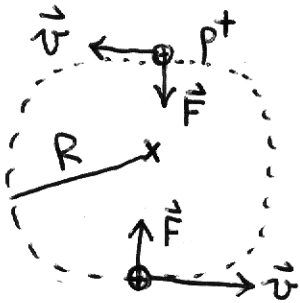
$v = 10^5 \frac{m}{s}$ $\vec{v} \perp \vec{B}$ $m_p = 1,6 \cdot 10^{-27} \text{ kg}$ $q = e = 1,6 \cdot 10^{-19} \text{ C}$

$R = ?$

$\vec{F} = q \vec{v} \times \vec{B}$

$\vec{F}_e = m \vec{a}$

$a_{cp} = \frac{v^2}{R}$



$F_e = m_p \frac{v^2}{R} = F = qvB = evB$ ($\alpha = 90^\circ \rightarrow \sin \alpha = 1$)

↓ ↓

$m_p \frac{v^2}{R} = evB$

⇓
R