1. No hints

2. No hints

3. Assume uniform current distribution

4. a) No hints

b) - Expression for ∇B-drift in lecture 2

- Smallness of B_p

$\Rightarrow B^2 \approx B_0^2$ & $\vec{B} \times \nabla B \approx \vec{B}_t \times \nabla B$

c) Expr. for $\vec{E} \times \vec{B}$ drift in lecture 2