Homework 9
Physics 313
Fall 2026

Due Tuesday 10 November 2026, 12:30 PM, as an upload to ELMS

All problems are from Griffiths *Introduction to Electrodynamics* 5th Edition

1) **Griffiths Problem 5.1. [Cyclotron orbit calculation]**

2) **Griffiths Problem 5.3. [Electron in E- and B-field]**

3) **Griffiths Problem 5.4. [Forces on a current-carrying loop in B-field]**

4) **Griffiths Problem 5.6. [2D and 3D current densities]**

5) **Griffiths Problem 5.8, part (a) only. [Field at center of square loop]**
Hint: Try using Eq. 5.37.

6) **Griffiths Problem 5.9. [Field at center of circular loop segments]**

7) **Griffiths Problem 5.13. [Magnetic attraction vs. Electric repulsion]**