

Homework 5
Physics 313
Fall 2026

Due Tuesday 6 October 2026, 12:30 PM, as an upload to ELMS
All problems are from Griffiths *Introduction to Electrodynamics* 5th Edition

- 1) Griffiths Problem 3.2 [Earnshaw's theorem for charged particles]**
- 2) Griffiths Problem 3.3 [Solutions to Laplace's equation. Hint: You must solve a second order ordinary differential equation with a general solution involving two constants.]**
- 3) Griffiths Problem 3.7 [Force on a charge near a conducting surface]**
- 4) Griffiths Problem 3.8 [Method of images for sphere and point charge]**
- 5) Griffiths Problem 3.13 [Image charges for two perpendicular conductors]**