

PHYSICS 4175: Assignment #7

DUE: Thursday March 3, 2016

Problems:

1. **Problem 5.34 on page 255**

2. **Problem 6.28 on page 294**

3. **Magnetic Sphere**

Consider a sphere of uniformly magnetized material with a radius R . Assume M is a constant. Find the magnetic field everywhere.

4. **Magnetic Cylinder**

Consider an infinite cylinder of linear magnetic material of radius R and permeability μ placed in an initially uniform magnetic field $\vec{B}_o = B_o \hat{e}_y$. Find the magnetic field throughout space.