Phys332/Homework
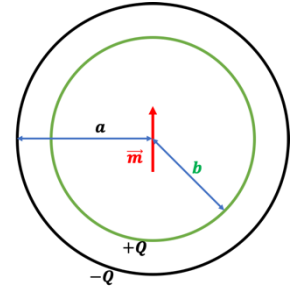**Due on Monday 29/11/2021**

Consider a magnetic dipole $\vec{m}$ at the center of two concentric spherical metal shells of radii a and b. There is a total charge $+Q$ and $-Q$ on the inner sphere and outer sphere, respectively.

   a. The Poynting vector everywhere.
   b. The energy density associated with the electromagnetic field.
   c. The momentum density associated with electromagnetic field.
   d. The angular momentum density associated with the electromagnetic field.
   e. The total angular momentum associated with the electromagnetic field.

Additional recommended Problems (do not hand in your solution for them):

8.4

8.7

8.9

8.16

8.24