

Physics 721 Homework 1

Assigned: Wed. 1/19/05

Due: Mon. 1/24/05

1. Suppose you obtain *working in Gaussian units* a solution

$$Z = ck^4|\vec{j}|^2$$

where $|\vec{j}|$ is a physical quantity which has units *Asm in SI*, k is a wave vector (units m^{-1} in *SI*), and Z has units $kg\ m^2/s^3$ in *SI*. Find an expression for Z in *SI* units.

2. Jackson 11-3