2.6 A coaxial line with inner and outer conductor diameters of 0.5 cm and 1 cm, respectively, is filled with an insulating material with $\varepsilon_r = 4.5$ and $\sigma = 10^{-3}$ S/m. The conductors are made of copper.

* (a) Calculate the line parameters at 1 GHz.

* 2.8 Find $\alpha$, $\beta$, $\mu_p$, and $Z_0$ for the coaxial line of Problem 2.6. Verify your results by applying CD Module 2.2. Include a printout of the screen display. (No need to do the CD part)

2.15 Find $\alpha$ and $Z_0$ of a distortionless line whose $R' = 2 \Omega/m$ and $G' = 2 \times 10^{-4}$ S/m.