

ECEn 360
Lines and Fields
Homework #3

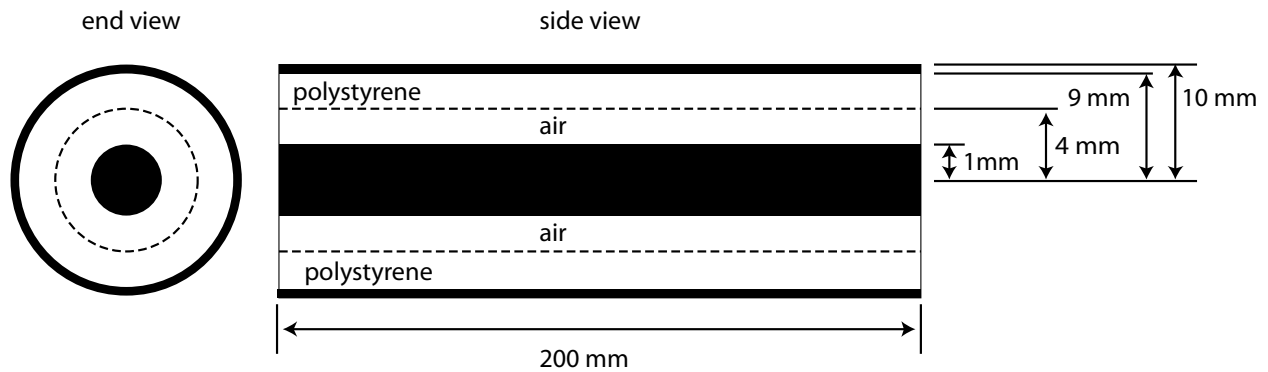


Figure 1

1. Figure 1 shows a section of coaxial cable with the insulator being part air and part polystyrene. A DC voltage of 10V is applied to the section of coaxial cable. Calculate the following.
 - a. Capacitance
 - b. Maximum electric field
 - c. Total charge on the inner conductor
2. Text: Problem 5.20
3. Text: Problem 5.21
4. Text: Problem 5.23
5. Text: Problem 5.25
6. Text: Problem 5.26