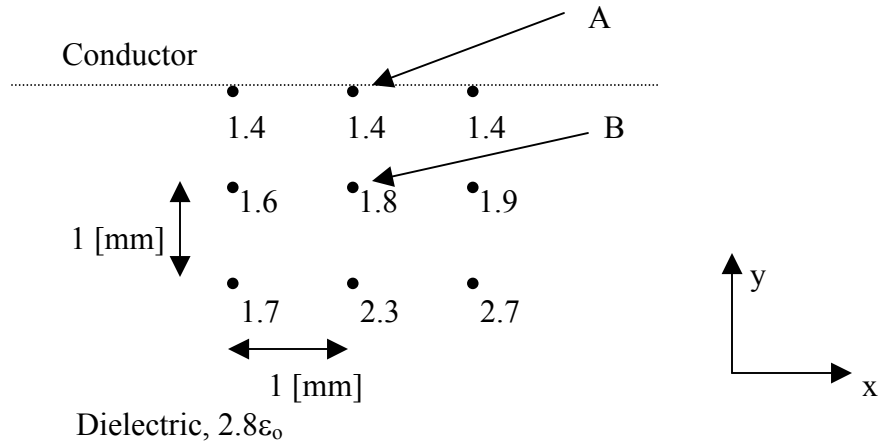


Preparation Assignments:

Due Monday, March 3



In the above figure, the voltage at each point is shown. Approximately, what is the electric field (in vector form) at points A and B?

The region above the dashed line is a perfect conductor. The region below the dashed line is a dielectric with relative permittivity of 2.8. What is the surface charge density on the conductor at point A?

Due Wednesday, March 5 (Tuesday, March 4)

What is meant by the phrase “thermal equilibrium” when discussing electron motion?

Symbolically, what is the average rate of momentum transfer to a metallic lattice? Define the symbols you use.

(This is not a joke question.)