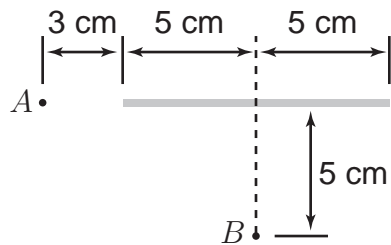


**Physics 251**  
**Fall 1998**  
**Homework #3**  
**Due: Friday September 18, 1998**



1. (From Purcell 1.24) A thin rod 10 cm long carries a total charge of  $3 \times 10^{-9}$  C uniformly distributed along its length. Find the strength of the electric field at each of the two points  $A$  and  $B$  located as shown in the diagram.
2. Tipler 19-29.
3. Tipler 19-48.
4. Tipler 20-38.
5. Tipler 20-62.