

**Homework 9**  
**EE381-1 Electric & Magnetic Fields (Fall 2018)**  
**Friday, October 26, 2018**

- 1) 5.7 (d) Also, find  $\bar{J}$  if the bar is along the  $z$ -axis with the higher potential at top.
- 2) 5.16 As part of the solution, find equations for  $\bar{E}$ ,  $\bar{D}$ , and  $\bar{P}$ .
- 3) 5.21 Also, determine  $\chi_e$ ,  $\bar{E}$ ,  $\bar{P}$ , and  $\rho_v$ .
- 4) 5.31
- 5) 5.34
- 6) 5.38 Hint: gradient can be used to find surface normal(s).
- 7) 5.39
- 8) 5.44

**Due Wednesday, October 31, 2018.**