

1/19/05

EE518: Homework # 2

Due Date: 1/26/05

Read chapters 2 and 3 (pages 42-84 and 104-126).

1. 2.3,
2. 2.5,
3. 2.8
4. 2.16
5. 2.18
6. 2.21
7. A perfect conducting sphere of radius a carries a total charge Q . What is the potential on the surface of this sphere when it is: (a) in free space, (b) half submerged in oil ($\epsilon_{\text{oil}} = 41 \epsilon_0$), (c) completely submerged in oil.