

Recitation 4

Chapter 17

Problem 40. A $C_1 = 7.7 \mu\text{F}$ capacitor is charged by a $V = 125 \text{ V}$ battery (Fig. 17-29a) and then is disconnected from the battery. When this capacitor (C_1) is then connected (Fig. 17-29b) to a second (initially uncharged) capacitor, C_2 , the final voltage on each capacitor is $V_2 = 15 \text{ V}$. What is the value of C_2 ? [*Hint*: charge is conserved.]

