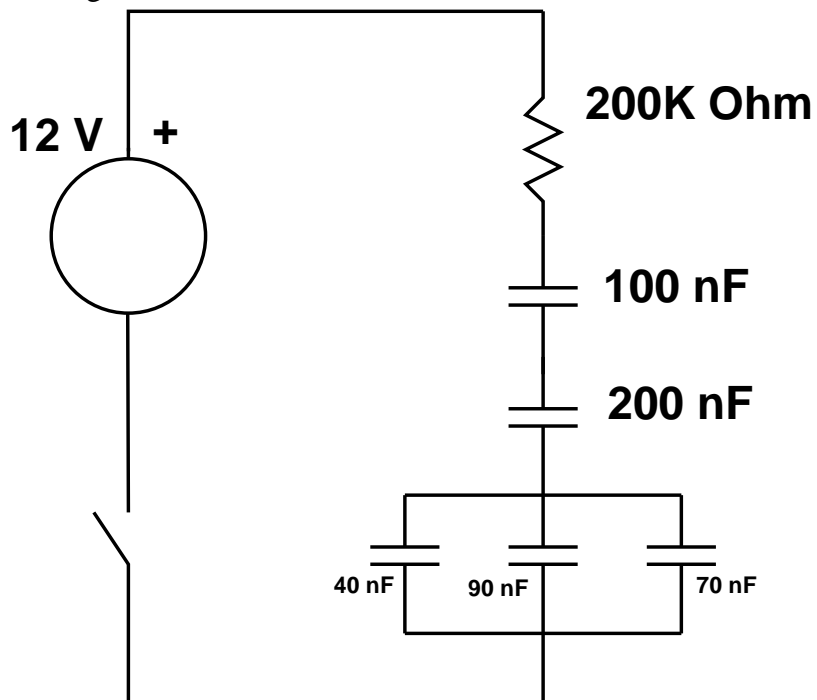


**Physics 122: Practice Problem of the Day****Problem #18: Caps in a circuit**

Friday February 27, 2009

Consider the following circuit:



**Part (a):** Suppose the switch is thrown. What is the time-constant associated with the charge-up of the 100 microfarad capacitor? What is the time-constant associated with the charge-up of the 40 microfarad capacitor?

**Part (b):** Suppose we wait long enough after throwing the switch so that the circuit has come to equilibrium. What is the voltage across and charge within each of the five capacitors?