

## HOMEWORK SET 5

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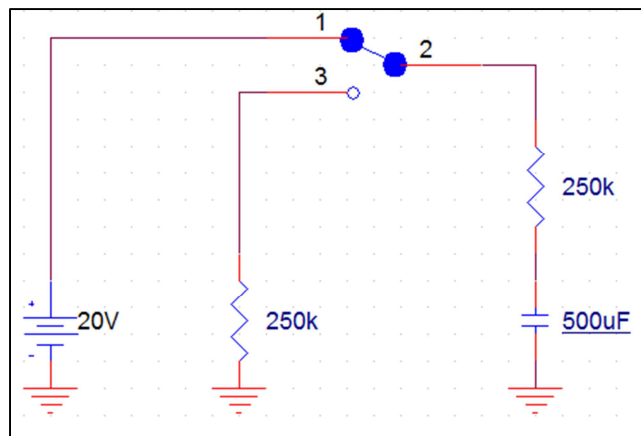
**DUE DATE: 3/3/16**

**TEXTBOOK PROBLEMS:**

7.2, 7.7, 7.11, 7.18, 7.43, 7.57, 7.69, 7.73

**SUPPLEMENTAL QUESTION:**

1. In the circuit shown below, the switch bridges terminals 1 and 2 for a long time. At  $t = 0$ , the switch is instantaneously reconfigured so that it bridges terminals 2 and 3. Solve for:
  - a. The capacitor current  $i(t)$  for  $t > 0$ .
  - b. The capacitor voltage  $V(t)$  for  $t > 0$ .



2. Simulate the circuit shown above using LTSPICE. Plot the current through the capacitor and the voltage across the capacitor between  $T = [0, 5\tau]$  seconds