

Team Name: _____ Section: _____

Members Present (full names printed):

- 1) _____
- 2) _____
- 3) _____
- 4) _____

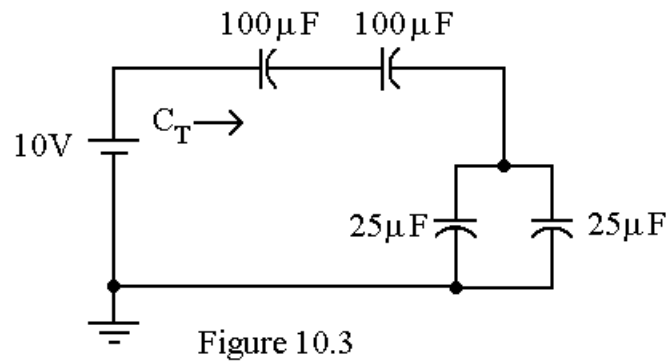
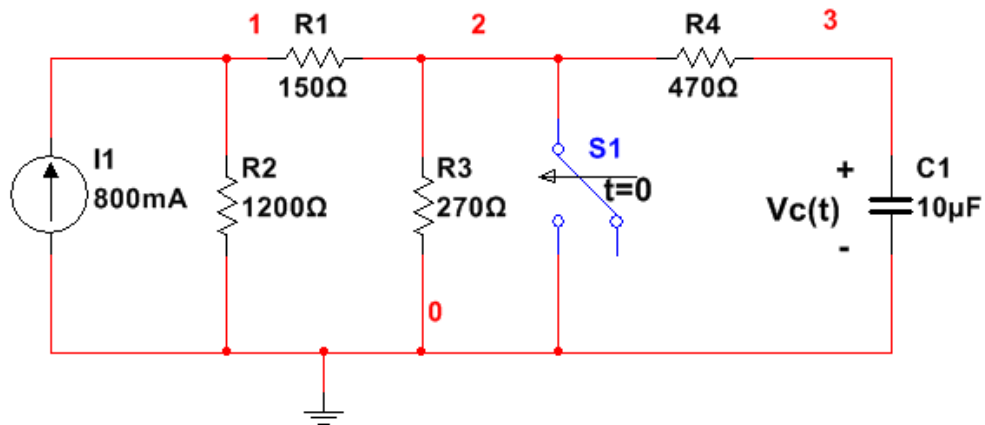


Figure 10.3

Find:

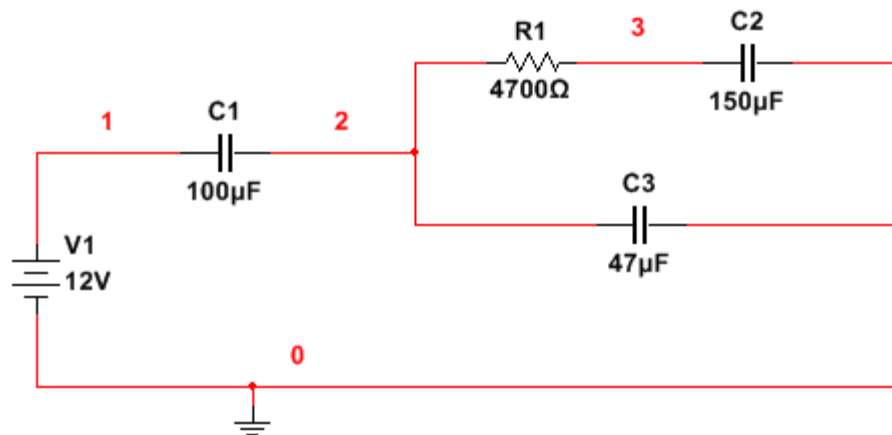
- 1) C_T , the total capacitance seen by the source



Given that switch S1 has been open for a long time BEFORE $t=0$

Find:

- 1) $V_c(t)$ at $t=0$
- 2) The maximum current through R4 AFTER $t=0$
- 3) The time constant of the charging circuit ($t < 0$)
- 4) The time constant of the discharge circuit ($t > 0$)
- 5) $V_c(t)$ for $t > 0$
- 6) The charge on the capacitor (C1) at $t = 10\text{msec}$

**Find:**

- 1) The voltage across and the charge on each capacitor (steady-state)