

EE 206: Homework #1

PartSim and Matlab: Due Wednesday, January 22nd

Please make the subject "EE 206 HW#1" if submitting homework electronically to Jacob_Glower@yahoo.com (or on blackboard)

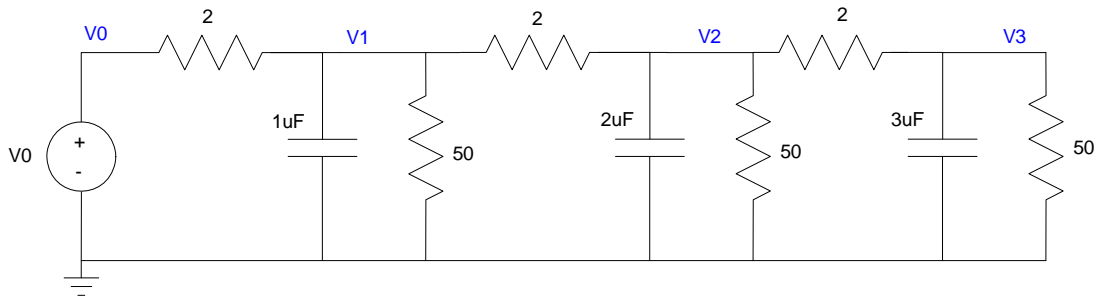
PartSim

1) For the following circuit, let $V_0 = 20V$. Using PartSim, determine the voltages V_1 .. V_3 . (note: use Run - DC Bias)

2) Assume V_0 is a

- 500Hz sine wave
- 10V peak

Determine the voltages V_1 .. V_3 for 5ms (use Run - Transient Response)



Problem 1 & 2.

Matlab

3) Using Matab, solve for V_1 , V_2 , and V_3

$$8V_1 + 9V_2 + 3V_3 = 50$$

$$9V_1 + 6V_2 + 5V_3 = 0$$

$$V_1 + V_2 + 10V_3 = 7$$

4) Using Matab, solve for V_1 , V_2 , and V_3

$$(8+j10)V_1 + 9V_2 + 3V_3 = 50$$

$$9V_1 + (6+j5)V_2 + 5V_3 = 0$$

$$V_1 + V_2 + (10+j9)V_3 = 7 + j7$$

