

- B. Data Tables w/ results – reproduce Table 3.2 & Table 3.3
- C. Sample calculations – Show the calculation method used to fill out the columns in Table 3.2. If you fill out the calculations in column in Table 3.3 correctly, you will receive 5 extra points. You do this by using the diode in the following way: IF there CAN be a 0.7V drop over the diode, then there IS ONLY a 0.7V drop over the diode. If there CANNOT be a 0.7V drop over the diode, then the diode functions like an open switch. Feel free to see one of the TAs during office hours if you need more details.
- D. Discussion – Discuss how superposition works in Task #1 and why superposition doesn't work in Task #2. Think about how the diode works. We have said that the diode is a non-linear element. Discuss why resistors are linear elements and diodes are not. (What makes something linear?)

Table 3.2: Task 1

Parameter	Measured	Calculated	% difference	SPICE	% difference (SPICE to measured)
V_L	0.275V	0.2654V	0.5%		
$V_{L,1}$	-0.291V	-0.2909V	0.01%		
$V_{L,2}$	0.5564V	0.5564V	0%		
$V_{L,1} + V_{L,2}$	0.2654V	0.2655V	0.01%		

Table 3.3: Task 2:

Parameter	Measured	Calculated	SPICE	% Error
V_L	-0.0024 mV			
$V_{L,1}$	0.154 V			
$V_{L,2}$	-0.003 mV			
$V_{L,1} + V_{L,2}$	0.151 V			

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