

LABORATORY 2

Please print this sheet prior to coming to laboratory. Complete the pre-laboratory tasks in your lab notebook. Complete the lab tasks in **both** your lab notebook and this submission sheet.

1 Pre-laboratory Verification

3E -- 8

3E -- 9

3E -- 10

3E -- 11

3E -- 12

2 Laboratory Verification

3E -- 13

3 Deliverables

1. Copy the results table below (you may omit **0** values):

Base 2	Base 10	Calculated V_{in} (V)	INPUT		OUTPUT	
			Measured V_{in} (V)	Level (low/high)*	Measured V_{out} (V)	Level (low/high)*
0000	0	0.000				
0001	1	0.220				
0010	2	0.440				
0011	3	0.660				
0100	4	0.880				
0101	5	1.100				
0110	6	1.320				
0111	7	1.540				
1000	8	1.760				
1001	9	1.980				
1010	10	2.200				
1011	11	2.420				
1100	12	2.640				
1101	13	2.860				
1110	14	3.080				
1111	15	3.300				

* Based on IC datasheet values of V_{IH} , V_{IL} , V_{OH} , and V_{OL} .

2. Explain what the results table represents. Focus especially on the logic levels and why the readings make sense (or don't).

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3. What can you observe from the plot of the results?

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4. Staple a printout of the plot to this submission sheet.