

Name (in HUGE LETTERS): _____
(lastname, firstname)

email: _____

1. Draw the gate-level implementation of this truth-table (NO logic minimization required)
CarryIn is the output

Inputs		
a	b	CarryIn
0	1	1
1	0	1
1	1	0
1	1	1

2. What is a **3 to 8** decoder?

Takes a 3-bit signal and produces an 8-bit signal of which exactly one bit is 1. For input 000, bit0 is 1, if input is 001, bit1 is 1, if input is 010, bit2 is 1 and so on until if input is 111, bit8 is 1.

3. If an input of 3 is provided to a **3-to-8 decoder** what is its output?
For input 3 (011), the output is 00001000