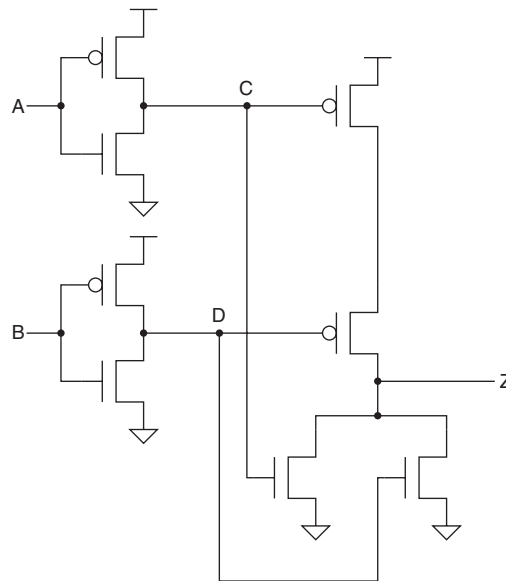# CS150 - Computer Organization and Architecture
Homework #2 - Spring 2023

1. Fill in the truth table corresponding to the transistor-level circuit shown below.

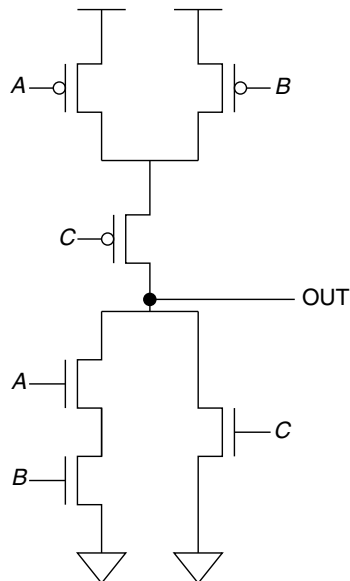| A	B	C	D	Z
0	0			
0	1			
1	0			
1	1			

2. Referring back to the transistor-level circuit shown in Problem 1, what is **Z** in terms of **A** and **B**?

3. Fill in the truth table below:

A	B	NOT(NOT(A) OR NOT(B))
0	0	
0	1	
1	0	
1	1	

4. Referring back to the truth table in Problem 3, what single logic gate has the same truth table?

5. Fill in the truth table corresponding to the transistor-level circuit shown below.

A	B	C	OUT
0	0	0	
0	0	1	
0	1	0	
0	1	1	
1	0	0	
1	0	1	
1	1	0	
1	1	1	