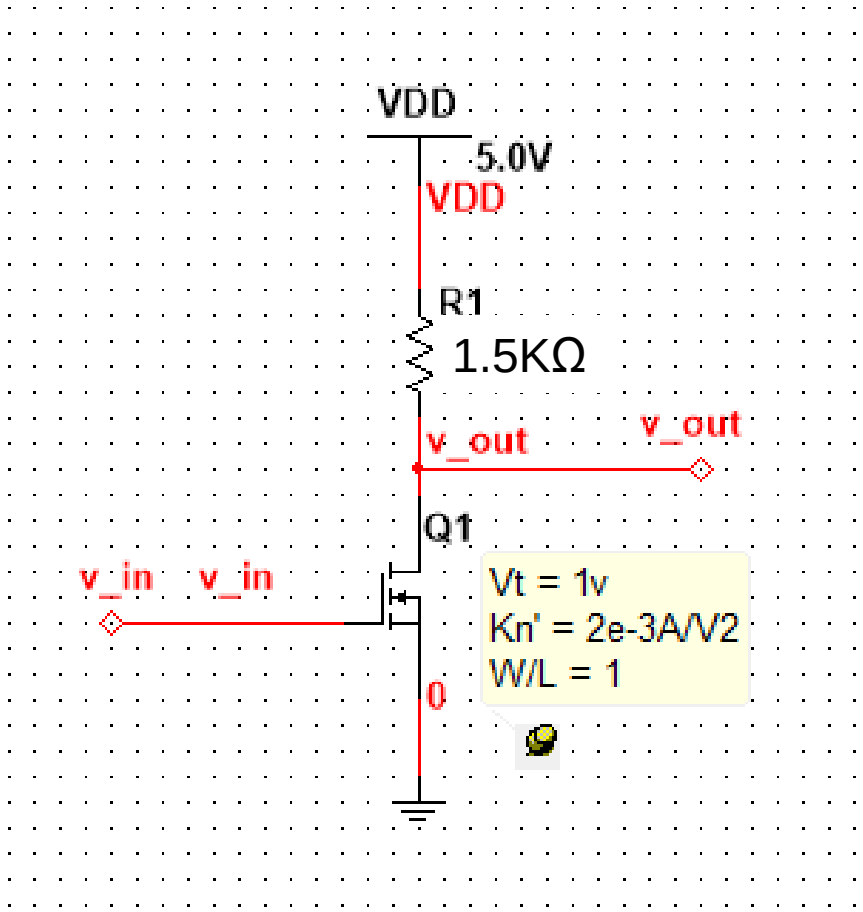
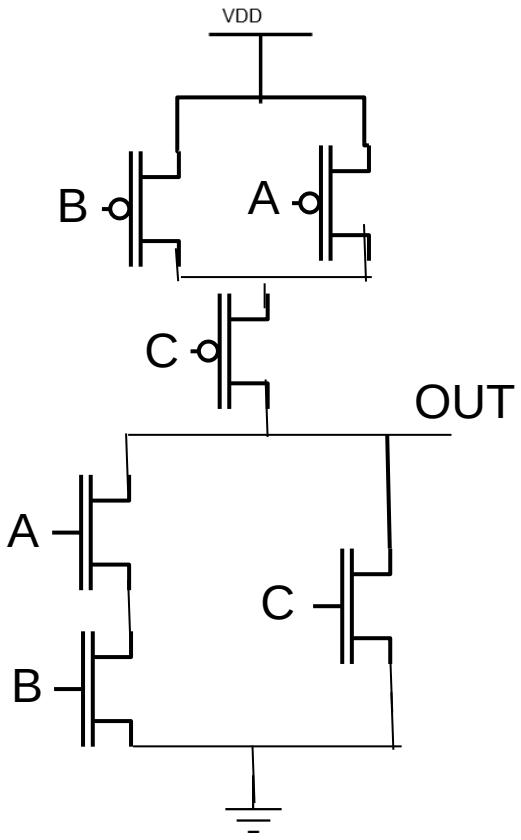
ELE 3510 HW2 Name_____

1 – Analysis: Create a table of the calculated expected output voltages for v_in from 0V to 5V in 0.5V increments. 40pts
Note: be sure to confirm the NMOS operating region



ELE 3510 HW2 Name_____

2 – Create a truth table and a SOP or POS logic equation for the circuit below .
This is called a compound gate. 30pts



A	B	C	OUT

ELE 3510 HW2 Name_____

3 – Use DeMorgan's theorem to reduce the logic equation in problem 2. Implement the solution with NANDs, NORs, and Inverters. Compare the 6-transistor solution in problem 2 to your solution above with respect to area and speed 30pts