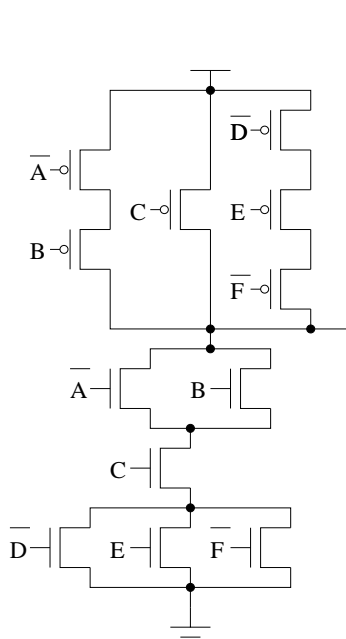
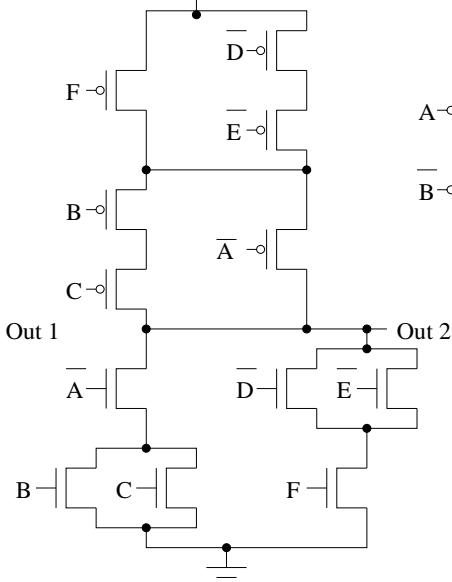


## Understanding Transistor Design

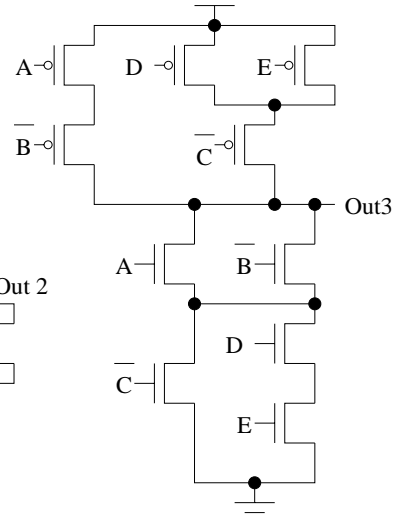
For part A, complete the circuit by adding NFETs and determine the expression. For part B, complete the circuit by adding PFETs and determine the expression. For part C, implement the circuit for the specified expression. Assume the inputs and their complements are available.



$$Out_1 = A\bar{B} + \bar{C} + D\bar{E}F$$



$$Out_2 = (A + \bar{B}\bar{C})(DE + \bar{F})$$



$$Out_3 = \bar{A}B + C(\bar{D} + \bar{E})$$