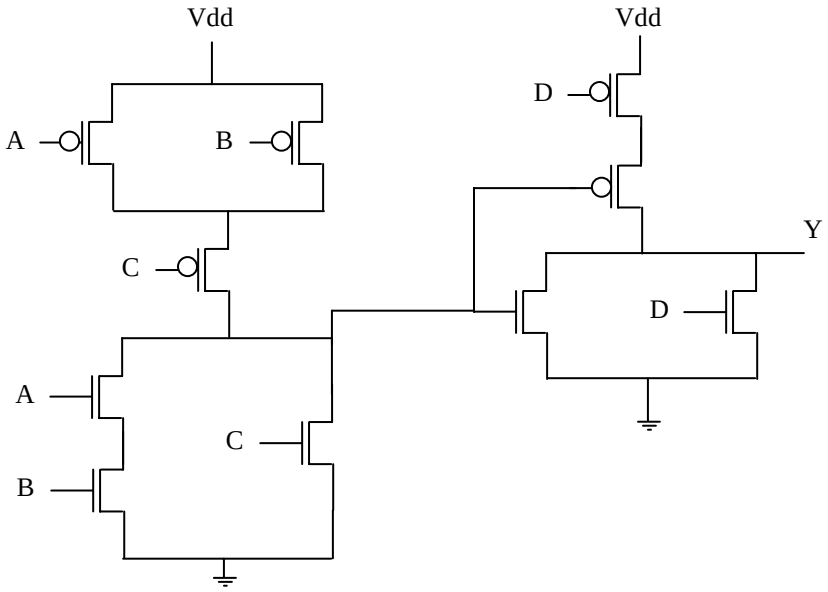
Name: **Id#**

COE 360, Principles of VLSI Design, Term 011
Quiz# 3

Date: Saturday, Oct. 27

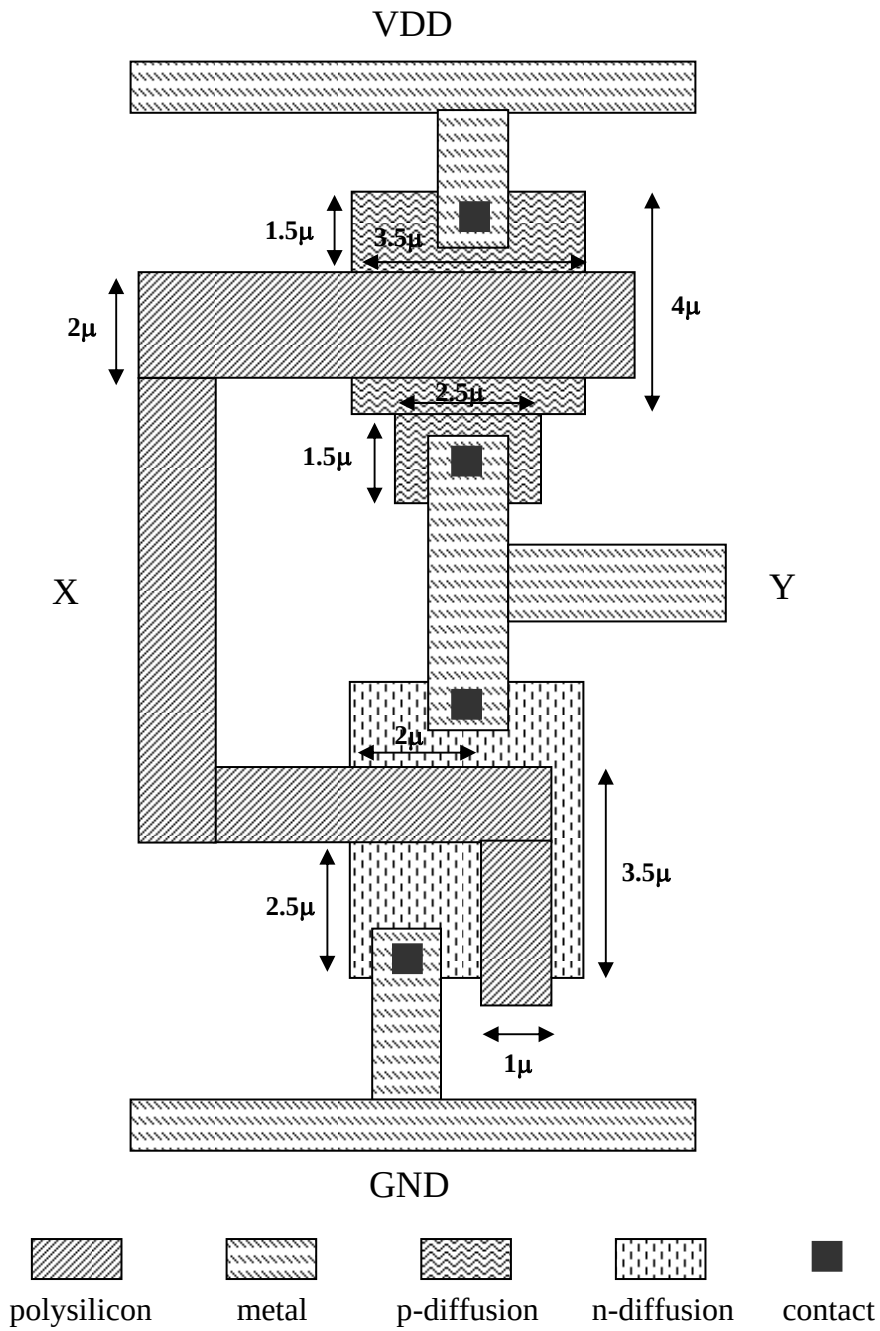
Q1. Draw the stick diagram layout of the transistor-level circuit shown below using one metal layer (Do not change the circuit structure). Show the n- and p-networks, and the Euler paths you identify. Minimize the wire lengths and the contact cuts used.



Use the following legend in the stick diagram layout:

metal **polysilicon** **p-diffusion** **n-diffusion** **Contact**

Q2. Given the layout shown below, do the following:

(1) Extract the transistor-level implementation from the layout and determine the function that it implements.

(2) Show each of the polysilicon, p-diffusion, n-diffusion, contact cut, and metal masks for this layout.