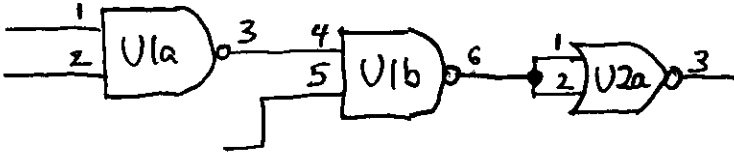


## 91.305 Schematic Drawing Hints

Based on the class discussion, here are guidelines for drawing schematics.

1. Draw gates, not chips. Label wires with pin numbers.
2. Name chips U1, U2, etc.
3. Name gates on the same chip U1a, U1b, etc.



4. Make a separate table mapping chip names to chip part numbers. Put power and ground wiring data here.

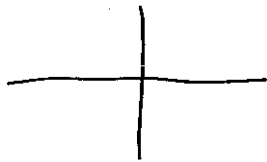
U1 = 74HC00

U2 = 74HC02

power = U1 - pin 14,  
          U2 - pin 14

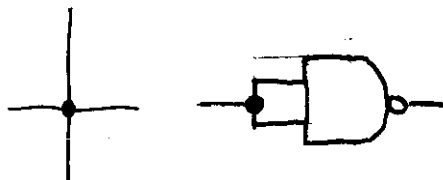
ground = U1 - pin 7  
          U2 - pin 7

5. Crossed wires without dot are not connected.



wires NOT  
connected

6. Add dot to indicate connections (T joins, crosses).



wires connected

7. Neat, hand-drawn schematics are acceptable and in some ways more desirable than schematics done on a CAD system (it's often faster and you can be more expressive when drawing by hand).