Homework 6
Due Wednesday, October 19

ADDRESS DECODING

Read 2.5, 2.6, 7.1-7.6, 8.7-8.11, 9.1-9.3

Do Chapter 2 # 28, Chapter 8 # 2

1.   Consider this code from Lab #6:

```
DUART      EQU        $00C001
SRA        EQU        2
RBA        EQU        6
           MOVE.L     #DUART,A0
LOOP       MOVE.B     SRA(A0),D7
           AND.B      #1,D7
           BEQ        LOOP
           MOVE.B     RBA(A0),D0
```

What address is read by `MOVE.B SRA(A0),D7`?

What address is read by `MOVE.B RBA(A0),D0`?

2.   The 68000 has no "A0" pin for address bit #0. Instead, it has $\overline{\text{UDS}}$ and $\overline{\text{LDS}}$. Explain the advantages of this design.

3.   Fill out the following table with "High" or "Low" to show what values the 68000 outputs will have while executing these instructions:

Instruction	$\overline{\text{UDS}}$ value	$\overline{\text{LDS}}$ value	R/$\overline{\text{W}}$ value
`MOVE.B $8200,D3`			
`MOVE.B D3,$9001`			
`MOVE.B $813B,D2`			
`MOVE.W D0,$A000`			
`MOVE.W $8FC4,D5`			

4.   The byte at $C01B on the 68KMB computer is an input port, and might be connected to eight switches, one for each bit. Write a code fragment that loops until bit 3 of the input port is 1.