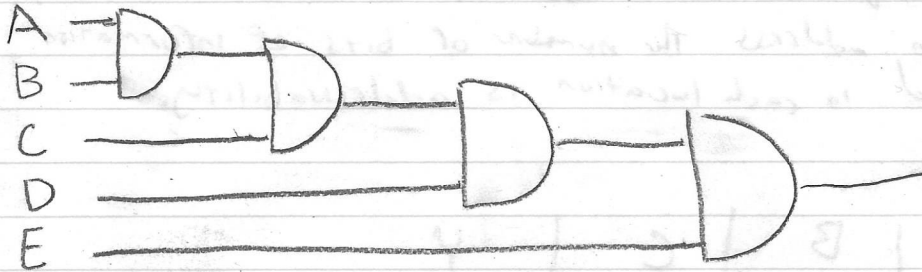


Homework #2

1.

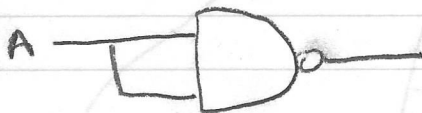


2. A 5-input decoder, should have 2^5 outputs or 32 outputs.

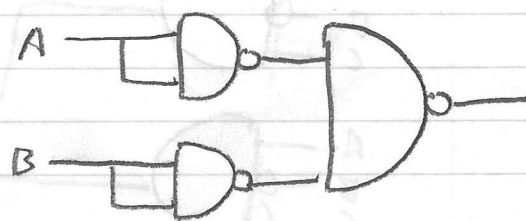
3. A 16-input multiplexer will have 1 output and 4 select lines.

4. A 14-bit address has 3.5 nibbles of storage.

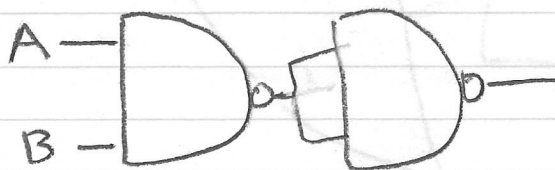
5. NOT



OR



AND

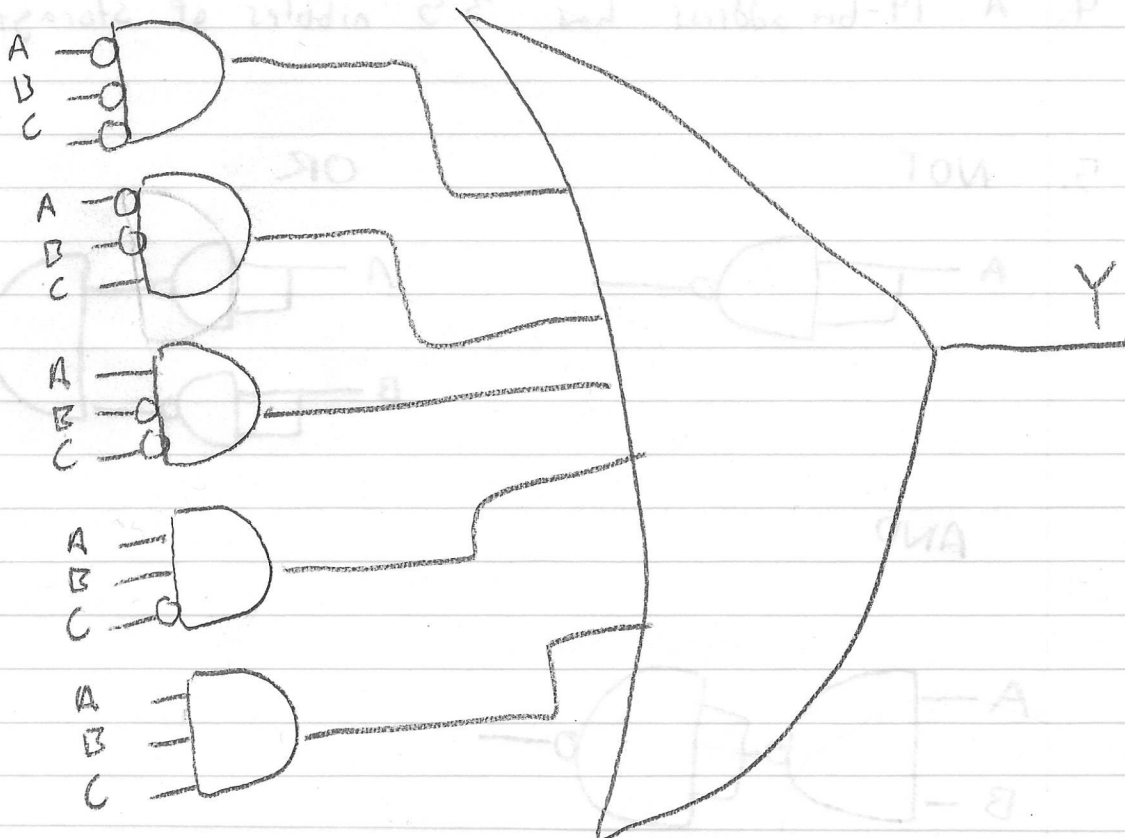


6. The unique identifier associated with each memory is an address. The number of bits of information stored in each location is addressability.

7.

A	B	C	Y
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0

8.



9. a. 39-22

$$\begin{array}{r} 01100111 \quad (39) \\ - 0010110 \quad (22) \\ \hline 0010001 \end{array}$$

2^0	1
2^1	2
2^2	4
2^3	8
2^4	16
2^5	32
2^6	64

b. 25-14

$$\begin{array}{r} 001001 \quad (25) \\ - 0001110 \quad (14) \\ \hline 0001011 \end{array}$$

c. 39-12

$$\begin{array}{r} 0100111 \quad (39) \\ - 0001100 \quad (12) \\ \hline 0011011 \end{array}$$

d. 18-11

$$\begin{array}{r} 0010010 \quad (18) \\ - 0001011 \quad (11) \\ \hline 0000111 \end{array}$$

e. 30-26

$$\begin{array}{r} 0011110 \quad (30) \\ - 0011010 \quad (26) \\ \hline 0000100 \end{array}$$