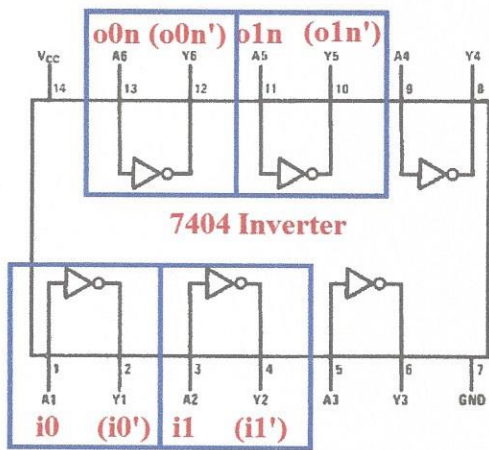
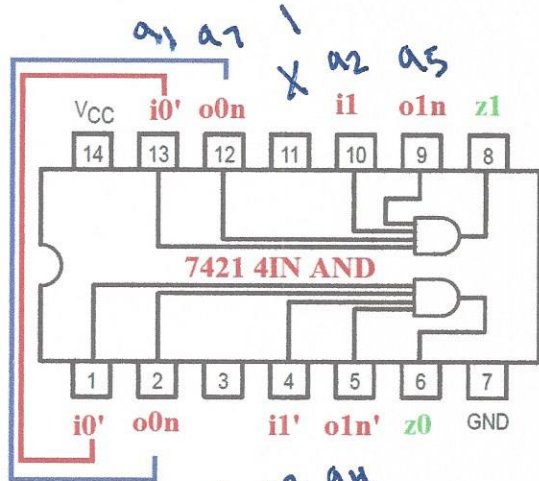


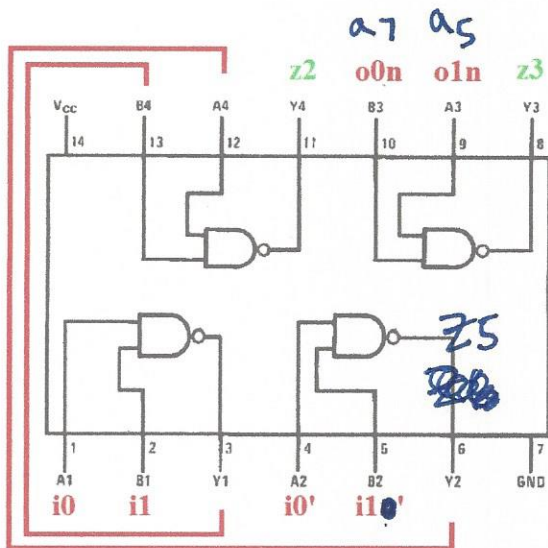
$a_7 a_6 a_5 a_4$
2



$a_0 a_1 a_2$ 3dir
 a_3

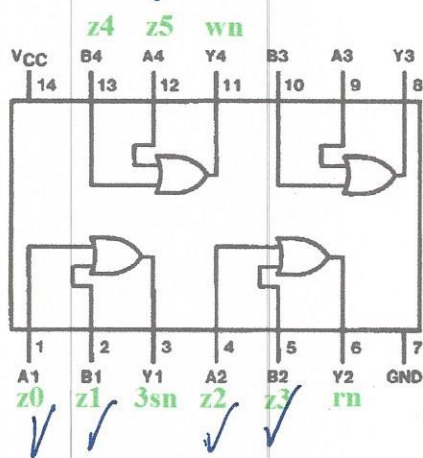


$a_1 a_7 \times a_3 a_4$
3

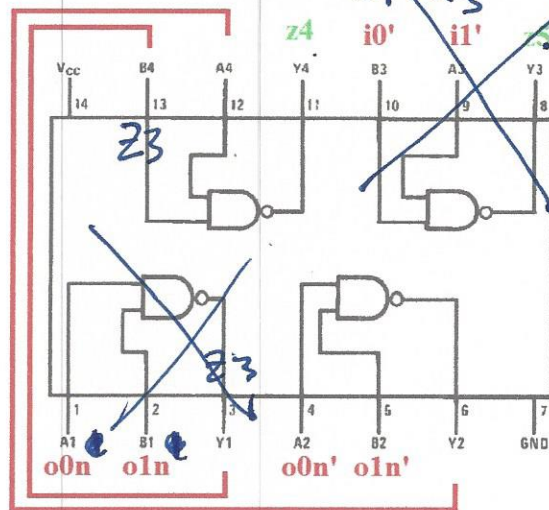


$a_0 a_2 a_1 a_3$

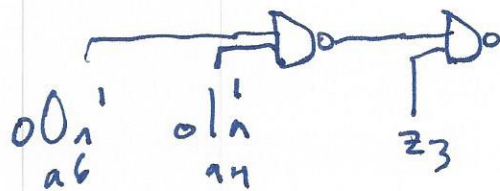
✓ ✓
5

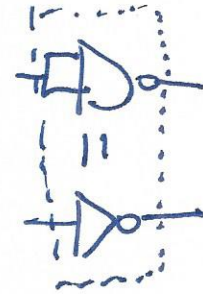
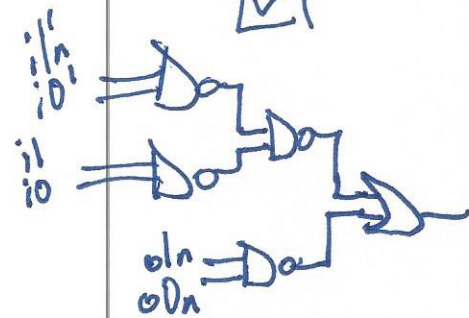
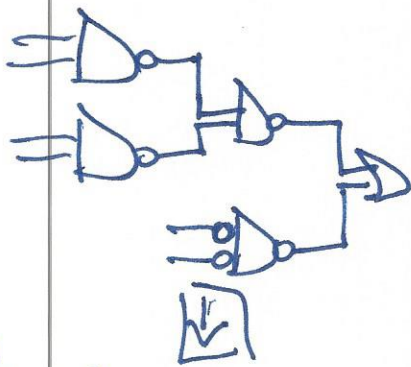
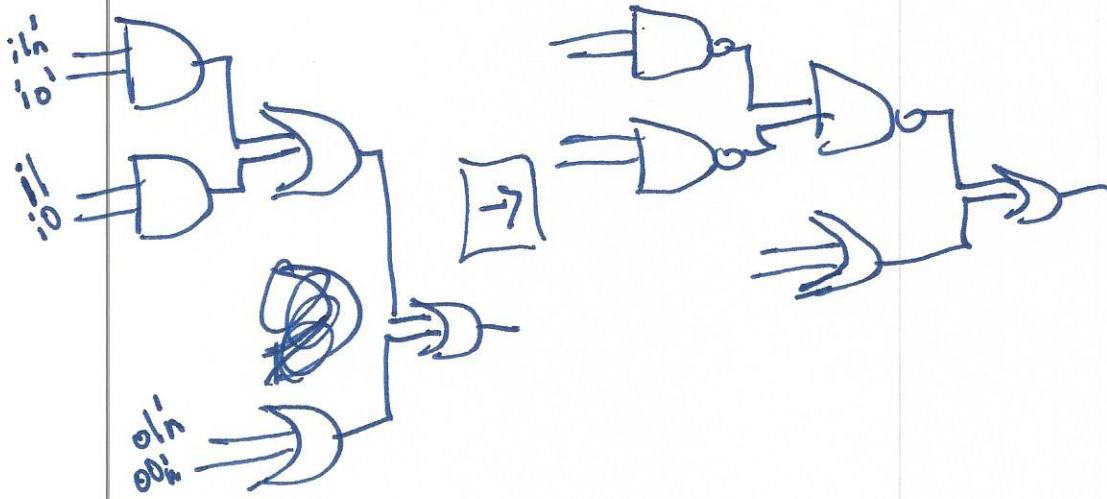


$z_5 =$



$a_7 a_5 a_6 a_4$





$$i0i1 + i0'i1' + [o1no1n]'$$

$$[o1no1n] + o1'n o1n' + [i0i1]'$$

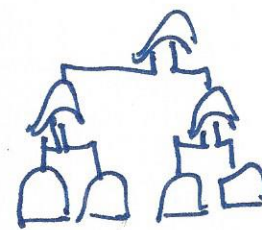
$$i0i1 + i1'i0' + o1n' + o1n'$$

$$o1no1n + o1'n o1n' + i0i1$$

0000	11-0
0001	1011
0010	10-0
0011	11-0
0100	11-0
0101	11-0
0110	11-0
0111	01-0
1000	11-0
1001	11-0
1010	11-0
1011	0101
1100	11-0
1101	11-0
1110	11-0
1111	11-0

Word = 650M

2:~ OR
2:~ NAND
4:~ AND



```

Truth_Table3_O

Simplification Routine: PI Chart
rn = il'i0' + o1n' + o0n' + il i0
wn = o1n'o0n' + o1n o0n + i0 + il
3dir = il'
3sn = il'i0'o1n'o0n + il i0'o1n o0n
*****
Simplification Routine: Patrick S
rn = il'i0' + o1n' + o0n' + il i0
wn = o1n'o0n' + o1n o0n + i0 + il
3dir = il'
3dir = o1n'
3sn = il'i0'o1n'o0n + il i0'o1n o0n
*****
Simplification Routine: PI Chart
rn = il'i0' + o1n' + o0n' + il i0
Input Cost = 8
Gate Cost = 3
wn = o1n'o0n' + o1n o0n + i0 + il
Input Cost = 8
Gate Cost = 3
3dir = il'
Input Cost = 0
Gate Cost = 0
3sn = il'i0'o1n'o0n + il i0'o1n o0n
Input Cost = 10
Gate Cost = 3

```