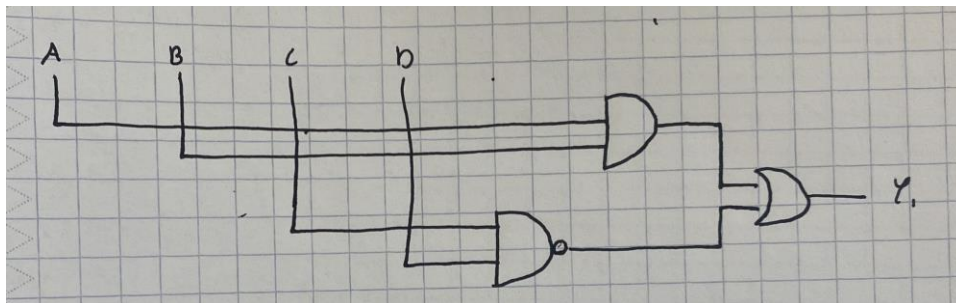Luke Le

CS4141.116

10/06/2023

<p align="center">Experiment 1 Post-Lab</p>

I worked with Jackson and Sarah during the lab portion. I do not know their last names.

1. $Y_1 = (AB) + (CD)'$

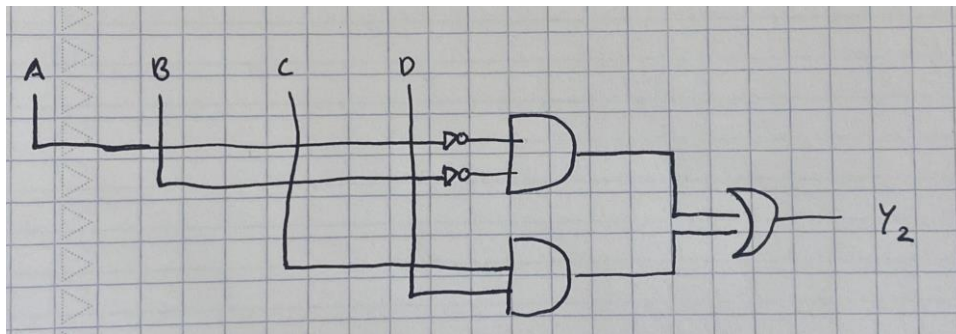| a	b	c	d	Y
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	0
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	0
1	0	0	0	1
1	0	0	1	1

| 1 | 0 | 1 | 0 | 1 |

| 1 | 0 | 1 | 1 | 0 |

| 1 | 1 | 0 | 0 | 1 |

| 1 | 1 | 0 | 1 | 1 |

| 1 | 1 | 1 | 0 | 1 |

| 1 | 1 | 1 | 1 | 1 |

2. $Y_2 = (A'B') + (CD)$

a	b	c	d	Y
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
0	1	0	0	0
0	1	0	1	0
0	1	1	0	0
0	1	1	1	1
1	0	0	0	0

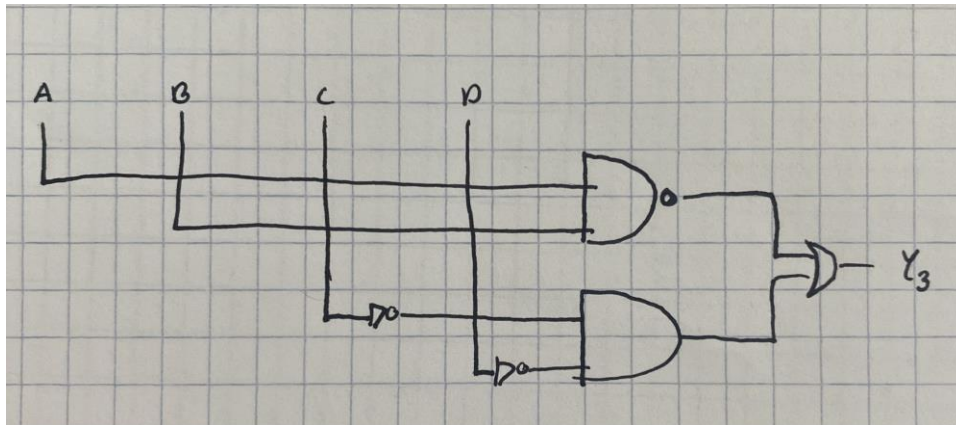| 1 | 0 | 0 | 1 | 0 |

| 1 | 0 | 1 | 0 | 0 |

| 1 | 0 | 1 | 1 | 1 |

| 1 | 1 | 0 | 0 | 0 |

| 1 | 1 | 0 | 1 | 0 |

| 1 | 1 | 1 | 0 | 0 |

| 1 | 1 | 1 | 1 | 1 |

3. $Y_3 = (AB)' + (C'D')$

a	b	c	d	Y
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	1
1	1	0	1	0

| 1 | 1 | 1 | 0 | 0 |

| 1 | 1 | 1 | 1 | 0 |

4. $Y_4 = (A \text{ xor } b) + (C \text{ xor } D)$
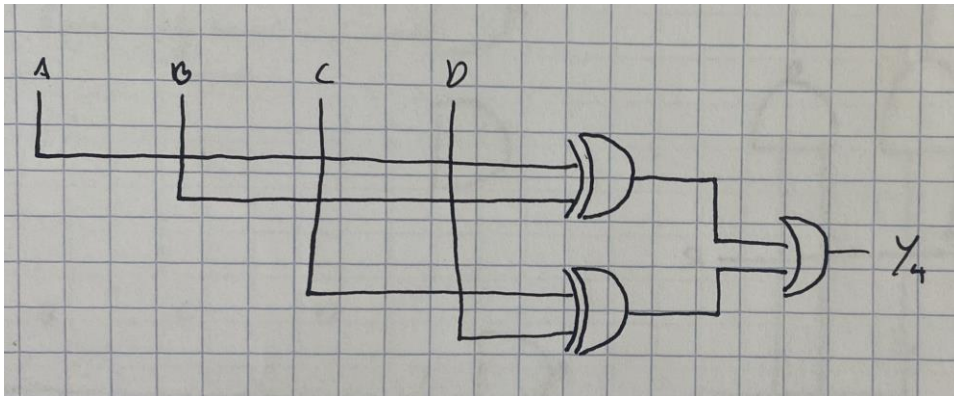
a	b	c	d	Y
0	0	0	0	0
0	0	0	1	1
0	0	1	0	1
0	0	1	1	0
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	0
1	1	0	1	1

| 1 | 1 | 1 | 0 | 1 |

| 1 | 1 | 1 | 1 | 0 |