Problem Set 2

COSC 290 Spring 2018

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1 Problem 1: Binary numbers

Below is a table of all the $x_0 - x_3$ bit to base 10 number pairings.

x_0	x_1	x_2	x_3	n
0	0	0	0	0
0	0	0	1	1
0	0	1	0	2
0	0	1	1	3
0	1	0	0	4
0	1	0	1	5
0	1	1	0	6
0	1	1	1	7
1	0	0	1	8
1	0	1	0	9
1	0	1	1	10
1	1	0	0	12
1	1	0	1	13
1	1	1	0	14
1	1	1	1	15

1.1 DLN 3.29

x_0

1.2 DLN 3.30

$((x_0 \lor x_1) \land \neg(x_2 \lor x_3)) \lor (x_0 \land x_3 \land \neg x_2 \land \neg x_1)$

2   Problem 2: More binary numbers

Replace this with your answer to problem 2. Use \subsection{} to separate your answer into parts.

3   Problem 3: Circuits

Replace this with your answer to problem 2. Use \subsection{} to separate your answer into parts.

4   Problem 4: More circuits

Replace this with your answer to problem 2. Use \subsection{} to separate your answer into parts.