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

$((x_0 \vee x_1) \wedge \neg(x_2 \vee x_3)) \vee (x_0 \wedge x_3 \wedge \neg x_2 \wedge \neg x_1)$

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.