p6d

鄭宇廷 B08202013

The Diff($g9|_{g5}$) BDD is not a constant 0. Since g9 = g8 & f & g5, g9(g5=0)=0. However, g9(g5=1) is not constant zero, and thus g9(g5=1)^g9(g5=0) is not constant zero. Here are some counter examples that g9(g5=1)=1

a	b	c	d	e	f	g5	g9
0	1	1	1	0	1	1	1
0	1	1	1	1	1	1	1
1	1	0	0	1	1	1	1
1	1	0	1	0	1	1	1
1	1	0	1	1	1	1	1
1	1	1	1	0	1	1	1
1	1	1	1	1	1	1	1

To make a ‘0’ BDD node, we have to let g9(g5=1)=0. This can be achieved by adding a ~f wire to g9 such that g9(g5=1)=0 and thus Diff($g9|_{g5}$) is a constant 0.