Lab 3 Deliverables

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Truth Table

(8th bit corresponds to dp, decimal point, which is always 1, or off)

in	a	b	c	d	e	f	g	out
0000	0	0	0	0	0	0	1	"0"
0001	1	0	0	1	1	1	1	"1"
0010	0	0	1	0	0	1	0	"2"
0011	0	0	0	0	1	1	0	"3"
0100	1	0	0	1	1	0	0	"4"
0101	0	1	0	0	1	0	0	"5"
0110	0	1	0	0	0	0	0	"6"
0111	0	0	0	1	1	1	1	"7"
1000	0	0	0	0	0	0	0	"8"
1001	0	0	0	0	1	0	0	"9"

A	00	01	11	10
00	0	1	0	0
01	1	0	0	0
11	1	1	1	1
10	0	0	1	1

a = AB + AC + BC'D' + A'B'C'D

B	00	01	11	10
00	0	0	0	0
01	0	1	0	1
11	1	1	1	1
10	0	0	1	1

b = AB + AC + BC'D + BCD'

C	00	01	11	10
00	0	0	0	1
01	0	0	0	0
11	1	1	1	1
10	0	0	1	1

c = AB + AC + B'CD'

D	00	01	11	10
00	0	1	0	0
01	1	0	1	0
11	1	1	1	1
10	0	0	1	1

d = AB + AC + BC'D' + BCD + A'B'C'D

E	00	01	11	10
00	0	1	1	0
01	1	1	1	0
11	1	1	1	1
10	0	1	1	1

e = D + BC'D' + ACD'

F	00	01	11	10
00	0	1	1	1
01	0	0	1	0
11	1	1	1	1
10	0	0	1	1

f = AB + CD = B'C = A'B'D

G	00	01	11	10
00	1	1	0	0
01	0	0	1	0
11	1	1	1	1
10	0	0	1	1

g = AB + AC = A'B'C' + BCD