LAB 3

	A	B	C	D	SEG0	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0x0	0	0	0	0	1	1	1	1	1	1	0
0x1	0	0	0	1	0	1	1	0	0	0	0
0x2	0	0	1	0	1	1	0	1	1	0	1
0x3	0	0	1	1	1	1	1	1	0	0	1
0x4	0	1	0	0	0	1	1	0	0	1	1
0x5	0	1	0	1	1	0	1	1	0	1	1
0x6	0	1	1	0	1	0	1	1	1	1	1
0x7	0	1	1	1	1	1	1	0	0	0	0
0x8	1	0	0	0	1	1	1	1	1	1	1
0x9	1	0	0	1	1	1	1	1	0	1	1
0xA	1	0	1	0	1	1	1	0	1	1	1
0xB	1	0	1	1	0	0	1	1	1	1	1
0xC	1	1	0	0	1	0	0	1	1	1	0
0xD	1	1	0	1	0	1	1	1	1	0	1
0xE	1	1	1	0	1	0	0	1	1	1	1
0xF	1	1	1	1	1	0	0	0	1	1	1

SEG0

$$SEG0 = BC + \bar{B}\bar{D} + \bar{A}BD + A\bar{C}\bar{D} + AB\bar{C} + \bar{A}C$$

SEG1

$$SEG1 = \bar{A}\bar{B} + \bar{B}\bar{D} + A\bar{C}D + \bar{A}C\bar{D} + \bar{A}CD$$

SEG2

AB\CD	00	01	11	10
00	1	1	1	0
01	1	1	1	1
11	0	1	0	0
10	1	1	1	1

$$SEG2 = A\bar{B} + \bar{C}D + \bar{A}B + \bar{A}D + \bar{A}\bar{C}$$

SEG3

AB\CD	00	01	11	10
00	1	0	1	1
01	0	1	0	1
11	1	1	0	1
10	1	1	1	0

$$SEG3 = A\bar{C} + \bar{B}\bar{C}\bar{D} + \bar{B}CD + \bar{A}CD + BC\bar{D} + B\bar{C}D$$

SEG4

AB\CD	00	01	11	10
00	1	0	0	1
01	0	0	0	1
11	1	1	1	1
10	1	0	1	1

$$SEG4 = C\bar{D} + AB + AC + \bar{B}\bar{C}\bar{D}$$

SEG5

AB\CD	00	01	11	10
00	1	0	0	0
01	1	1	0	1
11	1	0	1	1
10	1	1	1	1

$$SEG5 = \bar{C}\bar{D} + A\bar{B} + AC + BC\bar{D} + \bar{A}B\bar{C}$$

SEGG

AB\CD	00	01	11	10
00	0	0	1	1
01	1	1	0	1
11	0	1	1	1
10	1	1	1	1

$$SEGG = A\bar{B} + C\bar{D} + AD + \bar{A}B\bar{C} + \bar{A}BC$$