FIGURE 1

a_1	a_2	$c=0$	$c=1$	f
0	0	0	1	c
0	1	1	0	c˙
1	0	1	0	c˙
1	1	0	1	c

a_1	a_2	$c=0$	$c=1$	c
0	0	0	0	0
0	1	0	1	c
1	0	0	1	c
1	1	1	1	1

FIGURE 2

v w x y z   ← tens digit
10011
1010 $f_2 f_1$

XYZ

VW \ XYZ	000	001	011	010	110	100	101	111
00	0	0	0	0	0	0	0	0
01	0	0	1	1	1	1	1	1
10	1	1	1	1	0	0	0	0
11	0	0	0	0	1	0	0	X

$$v'w(x'y')' + vw'x' + vwxyz' = f_1$$

XYZ

VW \ XYZ	000	001	011	010	110	100	101	111
00	0	0	0	0	0	0	0	0
01	0	0	0	0	0	0	0	0
11	1	1	1	1	1	1	1	1
10	0	0	0	0	1	1	1	1

$$vw + vw'(x)$$

$$v(w + w'x)$$

$$v(w + x) = f_2$$
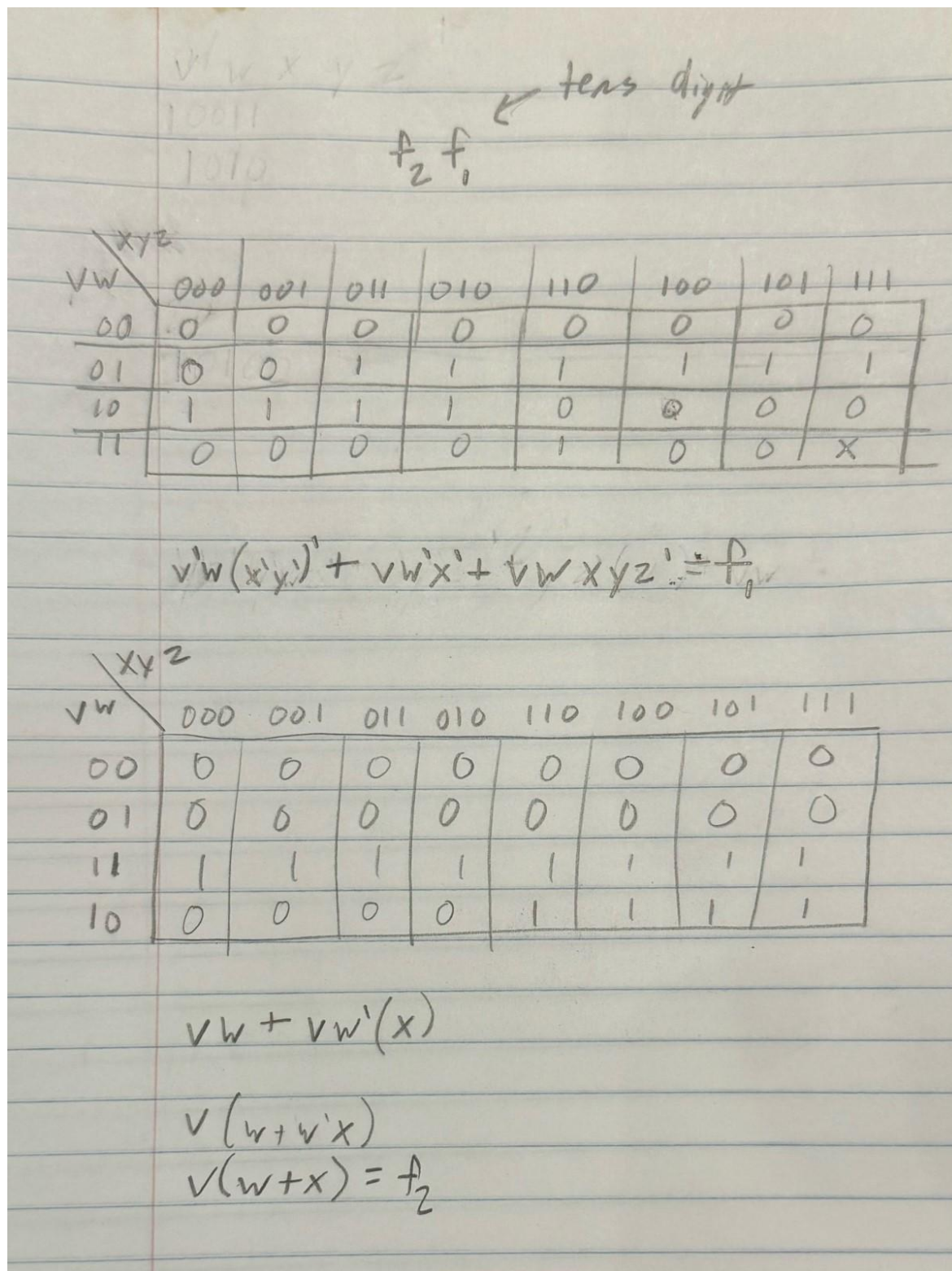
FIGURE 3

Decimal	C	S4	S3	S2	S1	W	X	Y	Z
0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	0	0	0	1
2	0	0	0	1	0	0	0	1	0
3	0	0	0	1	1	0	0	1	1
4	0	0	1	0	0	0	1	0	0
5	0	0	1	0	1	0	1	0	1
6	0	0	1	1	0	0	1	1	0
7	0	0	1	1	1	0	1	1	1
8	0	1	0	0	0	1	0	0	0
9	0	1	0	0	1	1	0	0	1
10	0	1	0	1	0	0	0	0	0
11	0	1	0	1	1	0	0	0	1
12	0	1	1	0	0	0	0	1	0
13	0	1	1	0	1	0	0	1	1
14	0	1	1	1	0	0	1	0	0
15	0	1	1	1	1	0	1	0	1
16	1	0	0	0	0	0	1	1	0
17	1	0	0	0	1	0	1	1	1
18	1	0	0	1	0	1	0	0	0
19	1	0	0	1	1	1	0	0	1
20	1	0	1	0	0	0	0	0	0
21	1	0	1	0	1	0	0	0	1
22	1	0	1	1	0	0	0	1	0
23	1	0	1	1	1	0	0	1	1
24	1	1	0	0	0	0	1	0	0
25	1	1	0	0	1	0	1	0	1
26	1	1	0	1	0	0	1	1	0
27	1	1	0	1	1	0	1	1	1
28	1	1	1	0	0	1	0	0	0
29	1	1	1	0	1	1	0	0	1
30	1	1	1	1	0	0	0	0	0