

Function Mapping

Example 1: $F_1(a, b) = a'$; $F_2(a, b) = a + b$

$$n = 2$$

$$m = 2$$

When $m \geq 2$ we have a multiple output function

a	b	F_1	F_2
0	0	1	0
0	1	1	1
1	0	0	1
1	1	0	1

$$F : B^n \rightarrow Y^m$$

For each input combination we map to an output combination

Example 2: $F_o(a, b, c) = b' + ac$

$$n = 3$$

$$m = 1$$

When $m = 1$ we have a single output function

a	b	c	F_o
0	0	0	1
0	0	1	1
0	1	0	0
0	1	1	0
1	0	0	1
1	0	1	1
1	1	0	0
1	1	1	1