

2.

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

$$f(A, B, C, D) = D$$

* Comprobación

$$\begin{aligned}
 & B'C'D + A'B'CD + AB'CD + A'BD + ABD \\
 &= D(B'C' + A'B'C + AB'C + A'B + AB) \\
 &= D(B'(C' + A'C + AC) + B(A' + A)) \\
 &= D(B'(C' + C(A' + A)) + B) \\
 &= D(B'(C' + C) + B) \\
 &= D(B' + B) \\
 &= D
 \end{aligned}$$

3. # d₃ d₂ d₁ d₀ e

0	0	0	0	0	1
1	0	0	0	1	0
2	0	0	1	0	1
3	0	0	1	1	0
4	0	1	0	0	0
5	0	1	0	1	0
6	0	1	1	0	1
7	0	1	1	1	0
8	1	0	0	0	1
9	1	0	0	1	0

d ₃ d ₂ \ d ₁ d ₀	00	01	11	10
00	1	0	0	1
01	0	0	0	1
11	x	x	x	x
10	1	0	x	x

$$f = \bar{d}_0 \bar{d}_1 \bar{d}_2 + d_0' d_1$$

$$f = d_0' d_2' + d_0' d_1$$

* Comprobación

d ₃	d ₂	d ₁	d ₀	
0	0	0	0	1
0	0	0	1	0
0	0	1	0	1
0	0	1	1	0
0	1	0	0	0
0	1	0	1	0
0	1	1	0	1
0	1	1	1	0
1	0	0	0	1
1	0	0	1	0
1	1	1	1	

$$4. f(A, B, C) = (AC)B' + C(A' + B') + BA$$

$$= AB'C + A'C + B'C + BA$$

a
b
c
a

$$f(A, B, C) = C + AB$$

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

* Comprobación

$$AB'C + A'C + B'C + AB$$

$$C(AB' + A' + B') + AB$$

$$C(B'(A+1) + A') + AB$$

$$C(B' + A') + AB$$

$$CB' + CA' + AB$$

$$CB' + CB + CA' + AB$$

$$C(B' + B + A') + AB$$

$$C + AB$$