Subject: Verilog 0764 – HW 2 – Problem 2.5.1

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a	b	c	d	f
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	1
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	1
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	1

$f = abcd + \bar{a}\bar{b}\bar{c}\bar{d} + a\bar{d} + \bar{a}b\bar{c} + \bar{b}d + \bar{a}b\bar{c} + ab\bar{c}\bar{d} + bcd + \bar{a}c\bar{d} = \boxed{1}$

simplified: $\boxed{f = 1}$

→ Special name: this is called a **tautology.**