

number of factorizations for elements of the form $2^n - 1$

n	2^n	# factorizations
1	1	1
2	3	1
3	7	1
4	15	2
5	31	4
6	63	8
7	127	16
8	255	37
9	511	81
10	1023	183
11	2047	424
12	4095	986

number of factorization by number of irreducible elements

$2^n - 1$	1	2	3	4	5	6	7	8
1	1	0	0	0	0	0	0	0
3	1	0	0		0	0	0	0
7	0	1	0	0	0	0	0	0
15	0	1	1	0	0	0	0	0
31	0	2	1	1	0	0	0	0
63	0	2	4	1	1	0	0	0
127	0	3	7	4	1	1	0	0
255	0	6	16	9	4	1	1	0
511	0	11	33	22	9	4	1	1