

process of extending the Array

number of occupied cells	length of the extended array
1	1
2	2
3	4
4	4
5	8
6	8
7	8
8	8
9	16
10	16
11	16
12	16
13	16
14	16
15	16
16	16
17	32
18	32
19	32
20	32
21	32
22	32
23	32
24	32
25	32
26	32
27	32
28	32
29	32
30	32
31	32
32	32
.	
.	
.	
n	$2*(n-1)$
.	$2*(n-1)$
.	$2*(n-1)$
.	$2*(n-1)$
$2*(n-1)$	$2*(n-1)$

$2^{*(n-1)+1}$	$2^{*(2^{*(n-1)})}$
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