Symmetry breaking	$n = 3$	4	5	6	7	8
none	19	194	2,588	37,434	679,771	19,597,858
lex col-snake	13	98	1,014	8,638	199,964	5,299,787
lex col	23	87	1,042	10,792	198,032	5,197,013
gray col	26	101	1,118	9,763	214,391	5,008,279
gray col-snake	13	100	1,059	8,973	205,453	4,877,014
gray spiral	18	104	913	10,795	169,725	4,690,071
lex spiral	18	93	887	10,694	169,293	4,674,458
gray row	19	73	680	6,975	116,725	3,705,591
gray snake	19	81	685	7,070	117,489	3,683,558
lex snake	19	80	661	7,043	117,590	3,682,438
lex row	19	73	679	6,880	115,999	3,652,269
anti-gray spiral	8	43	466	4,381	108,214	2,402,049
anti-gray snake	8	47	472	4,333	106,317	2,367,290
anti-gray row	8	44	452	4,326	105,837	2,357,024
anti-lex col-snake	18	59	560	4,513	70,950	2,346,875
anti-lex col	18	57	485	4,373	69,484	2,291,512
anti-lex row	9	29	315	3,417	101,530	2,037,336
anti-lex snake	9	34	314	3,366	100,472	2,010,354
anti-lex spiral	9	30	326	3,432	105,717	2,007,586
anti-gray col-snake	19	40	471	4,061	71,079	1,709,744
anti-gray col	19	40	385	4,317	70,632	1,698,492