## ${\bf Dihedral Group Lattice}$

September 14, 2018

**Group**: **Dih**(10000)

Searching up to index: 125

How many normal groups are found : 14

Total Time (in s) in GAP: 173.1

Number	$\operatorname{Index}$	Supergroups
1	1	[]
2	2	[1]
3	2	[1]
4	2	[1]
5	4	[2, 3, 4]
6	8	[5]
7	10	[2]
8	16	[6]
9	20	[5, 7]
10	32	[8]
11	40	$[\ 6,\ 9\ ]$
12	50	[7]
13	80	[ 8, 11 ]
14	100	[ 9, 12 ]

**Group**: **Dih**(10000)

Searching up to index: 250

How many normal groups are found : 17

Total Time (in s) in GAP: 227.3

Number	$\operatorname{Index}$	Supergroups
1	1	[ ]
2	2	[1]
3	2	[1]
4	2	[1]
5	4	$[\ 2,\ 3,\ 4\ ]$
6	8	[5]
7	10	[2]
8	16	[6]
9	20	[5, 7]
10	32	[8]
11	40	[ 6, 9 ]
12	50	[7]
13	80	[ 8, 11 ]
14	100	[ 9, 12 ]
15	160	[ 10, 13 ]
16	200	[ 11, 14 ]
17	250	[ 12 ]

**Group**: **Dih**(10000)

Searching up to index : 500

How many normal groups are found: 19

Total Time (in s) in GAP: 292.7

Number	Index	Supergroups
1	1	
2	2	[ 1 ]
3	2	[ 1 ]
4	2	[1]
5	4	$[\ 2,\ 3,\ 4\ ]$
6	8	[5]
7	10	[2]
8	16	[6]
9	20	$[\;5,\;7\;]$
10	32	[8]
11	40	$[\; 6, \; 9 \; ]$

12	50	[7]
13	80	$[\ 8,\ 11\ ]$
14	100	$[\ 9,\ 12\ ]$
15	160	[ 10, 13 ]
16	200	[ 11, 14 ]
17	250	[ 12 ]
18	400	[ 13, 16 ]
19	500	[ 14, 17 ]

**Group**: **Dih**(10000)

Searching up to index : 1000

How many normal groups are found : 21

Total Time (in s) in GAP: 356.4

Number	Index	Supergroups
1	1	[]
2	2	[1]
3	2	[1]
4	2	[1]
5	4	[2, 3, 4]
6	8	[ 5 ]
7	10	[2]
8	16	[6]
9	20	[5, 7]
10	32	[8]
11	40	[ 6, 9 ]
12	50	[7]
13	80	[ 8, 11 ]
14	100	[ 9, 12 ]
15	160	[ 10, 13 ]
16	200	[ 11, 14 ]
17	250	[ 12 ]
18	400	[ 13, 16 ]
19	500	[ 14, 17 ]
20	800	[ 15, 18 ]
21	1000	[ 16, 19 ]

Group: Dih(10000)

Searching up to index : 2000

How many normal groups are found : 23

Total Time (in s) in GAP: 379.4

Number	Index	Supergroups
1	1	[]
2	2	[1]
3	2	[1]
4	2	[1]
5	4	$[\ 2,\ 3,\ 4\ ]$
6	8	[5]
7	10	[2]
8	16	[6]
9	20	[5, 7]
10	32	[8]
11	40	[ 6, 9 ]
12	50	[7]
13	80	[ 8, 11 ]
14	100	[ 9, 12 ]
15	160	[ 10, 13 ]
16	200	[ 11, 14 ]
17	250	[ 12 ]
18	400	[ 13, 16 ]
19	500	[ 14, 17 ]
20	800	[ 15, 18 ]
21	1000	[ 16, 19 ]
22	1250	[ 17 ]
23	2000	[ 18, 21 ]

**Group**: **Dih**(10000)

Searching up to index : 4000

How many normal groups are found: 25

Total Time (in s) in GAP: 434.3

Number	Index	Supergroups
1	1	[]
2	2	[1]
3	2	[1]
4	2	[1]
5	4	[ 2, 3, 4 ]
6	8	[5]
7	10	$[ \ 2 \ ]$
8	16	[6]
9	20	$[\;5,\;7\;]$
10	32	[8]
11	40	$[\ 6,\ 9\ ]$
12	50	[7]
13	80	[ 8, 11 ]
14	100	$[\ 9,\ 12\ ]$
15	160	[ 10, 13 ]
16	200	[ 11, 14 ]
17	250	[ 12 ]
18	400	[ 13, 16 ]
19	500	[14, 17]
20	800	[15, 18]
21	1000	[ 16, 19 ]
22	1250	[ 17 ]
23	2000	[ 18, 21 ]
24	2500	[ 19, 22 ]
25	4000	$[\ 20,\ 23\ ]$