

# DihedralComparisonMagma

September 15, 2018

**Group : Dih(10000)**

Searching up to index : 125

How many normal groups are found : 14

Total Time (in s) in GAP: 173.1

Total Time (in s) in MAGMA: 1.0

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	173.1	1.0
FindPQuotients	12	12	151.6	0.7
FindTQuotients	1	1	0.0	0.3
FindIntersections	11	11	21.4	0.0
AddGroup	16	15	129.0	0.1
MustCheckP	118	41	0.0	0.0
FindPModules	99	22	151.6	0.7
SMTX_BasesMaximalSubmodules	11	11	0.0	0.0
PullBackH	13	5	0.0	0.0

**Group : Dih(10000)**

Searching up to index : 250

How many normal groups are found : 17

Total Time (in s) in GAP: 227.3

Total Time (in s) in MAGMA: 1.8

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	227.3	1.8
FindPQuotients	14	14	227.2	1.3
FindTQuotients	1	1	0.0	0.5

FindIntersections	13	13	0.0	0.0
AddGroup	21	20	182.9	0.3
MustCheckP	205	53	0.0	0.0
FindPModules	172	27	227.2	1.3
SMTX_BasesMaximalSubmodules	18	18	0.0	0.0
PullBackH	20	5	0.0	0.0

**Group : Dih(10000)**

Searching up to index : 500

How many normal groups are found : 19

Total Time (in s) in GAP: 292.7

Total Time (in s) in MAGMA: 2.9

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	292.7	2.9
FindPQuotients	17	17	258.8	1.8
FindTQuotients	1	1	33.9	1.0
FindIntersections	16	16	0.0	0.0
AddGroup	27	23	280.8	0.6
MustCheckP	362	71	0.0	0.0
FindPModules	299	32	258.8	1.8
SMTX_BasesMaximalSubmodules	21	21	0.0	0.0
PullBackH	23	5	0.0	0.0

**Group : Dih(10000)**

Searching up to index : 1000

How many normal groups are found : 21

Total Time (in s) in GAP: 356.4

Total Time (in s) in MAGMA: 5.3

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	356.4	5.3
FindPQuotients	19	19	281.1	2.8
FindTQuotients	1	1	75.2	2.4
FindIntersections	18	18	0.0	0.0

AddGroup	33	26	343.7	1.4
MustCheckP	641	77	0.0	0.0
FindPModules	522	32	281.1	2.8
SMTX_BasesMaximalSubmodules	24	24	0.0	0.0
PullBackH	26	5	0.0	0.0

**Group : Dih(10000)**

Searching up to index : 2000

How many normal groups are found : 23

Total Time (in s) in GAP: 379.4

Total Time (in s) in MAGMA: 8.2

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	379.4	8.2
FindPQuotients	21	21	304.2	4.7
FindTQuotients	1	1	75.2	3.5
FindIntersections	20	20	0.0	0.0
AddGroup	35	28	365.5	3.0
MustCheckP	1138	82	0.0	0.0
FindPModules	916	33	304.1	4.7
SMTX_BasesMaximalSubmodules	26	26	0.0	0.0
PullBackH	28	5	0.0	0.0

**Group : Dih(10000)**

Searching up to index : 4000

How many normal groups are found : 25

Total Time (in s) in GAP: 434.3

Total Time (in s) in MAGMA: 14.7

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	434.3	14.7
FindPQuotients	23	23	326.9	10.0
FindTQuotients	1	1	107.4	4.7
FindIntersections	22	22	0.0	0.0
AddGroup	40	30	418.0	7.9

MustCheckP	2042	88	0.0	0.0
FindPModules	1635	34	326.8	10.0
SMTX_BasesMaximalSubmodules	28	28	0.0	0.0
PullBackH	30	5	0.0	0.0