FreeProductsComparisonMagma

September 7, 2018

Group : $C_2 * C_3$
Searching up to index : 2500
How many normal groups are found : 527
Total Time in s : 374.5

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	374.5	387.5
FindPQuotients	247	247	332.9	134.5
FindTQuotients	1	1	16.6	0.59999999999999998
FindIntersections	246	246	24.9	252.40000000000001
AddGroup	724	604	280.8	356.10000000000002
MustCheckP	1706	994	0.0	0.
FindPModules	932	285	332.9	134.5
SMTX_BasesMaximalSubmodules	272	266	13.9	0.59999999999999998
PullBackH	404	383	13.7	3.7000000000000002

Group : $C_2 * C_4$
Searching up to index : 500
How many normal groups are found : 688
Total Time in s : 162.5

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	162.5	129.40000000000001
FindPQuotients	305	305	150.8	65.700000000000003
FindTQuotients	1	1	0.2	0.20000000000000001

FindIntersections	304	304	11.4	63.5
AddGroup	903	852	129.8	97.
MustCheckP	1182	955	0.0	0.10000000000000001
FindPModules	596	381	150.8	65.599999999999994
SMTX_BasesMaximalSubmodules	331	331	7.0	0.40000000000000002
PullBackH	599	474	4.4	0.90000000000000002

Group : $C_2 * C_5$
Searching up to index : 2000
How many normal groups are found : 205
Total Time in s : 175.0

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	175.0	25.199999999999999
FindPQuotients	88	88	164.6	22.600000000000001
FindTQuotients	1	1	6.3	0.29999999999999999
FindIntersections	87	87	4.0	2.2999999999999998
AddGroup	344	225	115.1	5.9000000000000004
MustCheckP	894	349	0.0	0.
FindPModules	592	96	164.6	22.600000000000001
SMTX_BasesMaximalSubmodules	96	86	11.4	0.5
PullBackH	173	157	14.7	1.3999999999999999

Group : $C_2 * C_6$
Searching up to index : 500
How many normal groups are found : 862
Total Time in s : 338.3

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	338.3	151.69999999999999
FindPQuotients	363	363	317.4	76.599999999999994
FindTQuotients	1	1	0.7	0.20000000000000001
FindIntersections	362	362	20.2	74.900000000000006

AddGroup	1145	1077	293.2	109.8
MustCheckP	1344	1090	0.0	0.10000000000000001
FindPModules	683	456	317.3	76.5
SMTX_BasesMaximalSubmodules	398	397	8.6	0.5
PullBackH	770	620	7.8	1.3999999999999999

Group : $C_2 * C_7$
Searching up to index : 1000
How many normal groups are found : 63
Total Time in s : 16.1

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	16.1	4.0999999999999996
FindPQuotients	26	26	15.4	3.7999999999999998
FindTQuotients	1	1	0.5	0.20000000000000001
FindIntersections	25	25	0.0	0.10000000000000001
AddGroup	79	69	8.2	0.59999999999999998
MustCheckP	385	92	0.0	0.
FindPModules	299	35	15.4	3.7999999999999998
SMTX_BasesMaximalSubmodules	29	29	1.2	0.
PullBackH	55	52	1.8	0.29999999999999999

Group : $C_2 * C_8$
Searching up to index : 500
How many normal groups are found : 1187
Total Time in s : 1093.9

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	1093.9	299.60000000000002
FindPQuotients	466	466	1051.8	177.
FindTQuotients	1	1	0.8	0.20000000000000001
FindIntersections	465	465	41.2	122.40000000000001
AddGroup	1761	1688	965.2	223.09999999999999

MustCheckP	1581	1337	0.0	0.
FindPModules	868	648	1051.8	176.90000000000001
SMTX_BasesMaximalSubmodules	505	505	22.3	1.1000000000000001
PullBackH	1353	1228	25.2	2.7000000000000002

Group : $C_2 * C_9$
Searching up to index : 1000
How many normal groups are found : 358
Total Time in s : 153.5

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	153.5	41.100000000000001
FindPQuotients	184	184	138.0	29.
FindTQuotients	1	1	5.3	0.20000000000000001
FindIntersections	183	183	10.1	11.9
AddGroup	490	445	110.8	21.800000000000001
MustCheckP	916	563	0.0	0.
FindPModules	485	186	138.0	28.899999999999999
SMTX_BasesMaximalSubmodules	168	167	6.1	0.29999999999999999
PullBackH	339	328	8.7	1.3

Group : $C_2 * C_{10}$
Searching up to index : 500
How many normal groups are found : 469
Total Time in s : 73.6

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	73.6	68.400000000000006
FindPQuotients	227	227	68.1	33.100000000000001
FindTQuotients	1	1	0.2	0.20000000000000001
FindIntersections	226	226	5.3	35.100000000000001
AddGroup	567	551	50.8	48.799999999999997
MustCheckP	951	732	0.0	0.

FindPModules	458	257	68.0	33.100000000000001
SMTX_BasesMaximalSubmodules	236	236	3.9	0.2000000000000001
PullBackH	367	223	4.1	0.40000000000000002

Group : $C_2 * C_{11}$
Searching up to index : 1000
How many normal groups are found : 21
Total Time in s : 10.5

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	10.5	1.
FindPQuotients	6	6	2.2	0.80000000000000004
FindTQuotients	1	1	8.2	0.20000000000000001
FindIntersections	5	5	0.0	0.
AddGroup	28	21	1.0	0.
MustCheckP	317	34	0.0	0.
FindPModules	271	9	2.2	0.80000000000000004
SMTX_BasesMaximalSubmodules	7	7	0.0	0.
PullBackH	16	14	0.0	0.

Group : $C_2 * C_{12}$
Searching up to index : 150
How many normal groups are found : 355
Total Time in s : 44.7

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	44.7	23.699999999999999
FindPQuotients	152	152	38.8	20.399999999999999
FindTQuotients	1	1	0.0	0.10000000000000001
FindIntersections	151	151	5.8	3.1000000000000001
AddGroup	476	473	36.4	5.5999999999999996
MustCheckP	494	423	0.0	0.
FindPModules	308	237	38.7	20.399999999999999

SMTX_BasesMaximalSubmodules	181	181	1.7	0.20000000000000001
PullBackH	378	339	0.8	0.29999999999999999