FreeProductsComparisonMagma

September 24, 2018

Group : $C_2 * C_3$
Searching up to index : 2500
How many normal groups are found : 527
Total Time (in s) in GAP: 103.6
Total Time (in s) in MAGMA: 387.5

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	103.6	387.5
FindPQuotients	247	247	79.8	134.5
FindTQuotients	1	1	16.2	0.6
FindIntersections	246	246	7.6	252.4
AddGroup	724	604	14.9	356.1
MustCheckP	1706	994	0.0	0.0
FindPModules	932	285	79.7	134.5
SMTX_BasesMaximalSubmodules	272	266	13.1	0.6
PullBackH	404	383	13.0	3.7

Group : $C_2 * C_4$
Searching up to index : 500
How many normal groups are found : 688
Total Time (in s) in GAP: 45.9
Total Time (in s) in MAGMA: 129.4

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	45.9	129.4
FindPQuotients	305	305	38.0	65.7
FindTQuotients	1	1	0.2	0.2

FindIntersections	304	304	7.5	63.5
AddGroup	903	852	14.1	97.0
MustCheckP	1182	955	0.0	0.1
FindPModules	596	381	38.0	65.6
SMTX_BasesMaximalSubmodules	331	331	6.8	0.4
PullBackH	599	474	4.4	0.9

Group : $C_2 * C_5$
Searching up to index : 2000
How many normal groups are found : 205
Total Time (in s) in GAP: 64.0
Total Time (in s) in MAGMA: 25.2

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	64.0	25.2
FindPQuotients	88	88	56.1	22.6
FindTQuotients	1	1	6.8	0.3
FindIntersections	87	87	1.0	2.3
AddGroup	344	225	5.3	5.9
MustCheckP	894	349	0.0	0.0
FindPModules	592	96	56.1	22.6
SMTX_BasesMaximalSubmodules	96	86	11.3	0.5
PullBackH	173	157	14.2	1.4

Group : $C_2 * C_6$
Searching up to index : 500
How many normal groups are found : 862
Total Time (in s) in GAP: 58.8
Total Time (in s) in MAGMA: 151.7

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	58.8	151.7
FindPQuotients	363	363	49.7	76.6
FindTQuotients	1	1	0.5	0.2
FindIntersections	362	362	8.5	74.9

AddGroup	1145	1077	15.6	109.8
MustCheckP	1344	1090	0.0	0.1
FindPModules	683	456	49.7	76.5
SMTX_BasesMaximalSubmodules	398	397	8.6	0.5
PullBackH	770	620	7.6	1.4

Group : $C_2 * C_7$
Searching up to index : 1000
How many normal groups are found : 63
Total Time (in s) in GAP: 8.0
Total Time (in s) in MAGMA: 4.1

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	8.0	4.1
FindPQuotients	26	26	7.3	3.8
FindTQuotients	1	1	0.6	0.2
FindIntersections	25	25	0.0	0.1
AddGroup	79	69	0.4	0.6
MustCheckP	385	92	0.0	0.0
FindPModules	299	35	7.3	3.8
SMTX_BasesMaximalSubmodules	29	29	1.3	0.0
PullBackH	55	52	1.7	0.3

Group : $C_2 * C_8$
Searching up to index : 500
How many normal groups are found : 1187
Total Time (in s) in GAP: 159.8
Total Time (in s) in MAGMA: 299.6

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	159.8	299.6
FindPQuotients	466	466	144.8	177.0
FindTQuotients	1	1	0.6	0.2
FindIntersections	465	465	14.3	122.4
AddGroup	1761	1688	33.8	223.1

MustCheckP	1581	1337	0.0	0.0
FindPModules	868	648	144.8	176.9
SMTX_BasesMaximalSubmodules	505	505	21.9	1.1
PullBackH	1353	1228	24.7	2.7

Group : $C_2 * C_9$
Searching up to index : 1000
How many normal groups are found : 358
Total Time (in s) in GAP: 47.7
Total Time (in s) in MAGMA: 41.1

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	47.7	41.1
FindPQuotients	184	184	39.2	29.0
FindTQuotients	1	1	5.3	0.2
FindIntersections	183	183	3.1	11.9
AddGroup	490	445	7.1	21.8
MustCheckP	916	563	0.0	0.0
FindPModules	485	186	39.2	28.9
SMTX_BasesMaximalSubmodules	168	167	5.6	0.3
PullBackH	339	328	8.4	1.3

Group : $C_2 * C_{10}$
Searching up to index : 500
How many normal groups are found : 469
Total Time (in s) in GAP: 31.8
Total Time (in s) in MAGMA: 68.4

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	31.8	68.4
FindPQuotients	227	227	25.9	33.1
FindTQuotients	1	1	0.2	0.2
FindIntersections	226	226	5.6	35.1
AddGroup	567	551	10.1	48.8
MustCheckP	951	732	0.0	0.0

Function				
FindPModules	458	257	25.9	33.1
SMTX_BasesMaximalSubmodules	236	236	3.8	0.2
PullBackH	367	223	4.0	0.4

Group : $C_2 * C_{11}$
Searching up to index : 1000
How many normal groups are found : 21
Total Time (in s) in GAP: 9.2
Total Time (in s) in MAGMA: 1.0

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	9.2	1.0
FindPQuotients	6	6	1.3	0.8
FindTQuotients	1	1	7.8	0.2
FindIntersections	5	5	0.0	0.0
AddGroup	28	21	0.2	0.0
MustCheckP	317	34	0.0	0.0
FindPModules	271	9	1.3	0.8
SMTX_BasesMaximalSubmodules	7	7	0.0	0.0
PullBackH	16	14	0.1	0.0

Group : $C_2 * C_{12}$
Searching up to index : 150
How many normal groups are found : 355
Total Time (in s) in GAP: 10.3
Total Time (in s) in MAGMA: 23.7

Function	Count_GAP	Count_MAGMA	Time_GAP	Time_MAGMA
LowIndexNormal	1	1	10.3	23.7
FindPQuotients	152	152	9.5	20.4
FindTQuotients	1	1	0.0	0.1
FindIntersections	151	151	0.7	3.1
AddGroup	476	473	1.9	5.6
MustCheckP	494	423	0.0	0.0
FindPModules	308	237	9.5	20.4

SMTX_BasesMaximalSubmodules	181	181	1.7	0.2
PullBackH	378	339	0.8	0.3