## FreeProductsBasicProfile

## September 14, 2018

**Group**:  $C_2 * C_3$ 

Searching up to index: 2500

How many normal groups are found: 527

Total Time (in s) in GAP: 100.8

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
MustCheckP	1706	0.0	0.0	0.0	0.0
FindIntersections	246	7.5	7.4	3.6	3.6
PullBackH	404	12.7	2.4	1.6	0.2
SMTX_BasesMaximalSubmodules	272	12.9	0.0	2.0	0.0
$\operatorname{AddGroup}$	724	14.7	14.2	4.6	4.5
FindTQuotients	1	16.2	16.1	3.3	3.3
FindPModules	932	77.0	76.0	25.5	25.4
FindPQuotients	247	77.1	77.0	25.5	25.5
LowIndexNormal	1	100.8	100.8	32.5	32.5

**Group**:  $C_2 * C_4$ 

Searching up to index : 500

How many normal groups are found : 688

Total Time (in s) in GAP: 44.0

Function	Count	AbsT/s	$\mathrm{ChildT/s}$	$\mathrm{AbsS/gb}$	ChildS/gb
MustCheckP	1182	0.0	0.0	0.0	0.0
FindTQuotients	1	0.2	0.2	0.0	0.0
PullBackH	599	4.3	0.7	0.5	0.0

SMTX_BasesMaximalSubmodules	331	6.6	0.0	0.8	0.0
FindIntersections	304	7.5	7.2	1.6	1.6
AddGroup	903	13.6	12.9	2.7	2.5
FindPModules	596	36.3	35.6	5.9	5.8
FindPQuotients	305	36.3	36.3	5.9	5.9
LowIndexNormal	1	44.0	44.0	7.6	7.6

Group:  $C_2 * C_5$ 

Searching up to index : 2000

How many normal groups are found : 205

Total Time (in s) in GAP: 61.4

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
MustCheckP	894	0.0	0.0	0.0	0.0
FindIntersections	87	1.1	1.1	0.4	0.4
AddGroup	344	5.4	5.3	0.9	0.9
FindTQuotients	1	6.6	6.6	1.0	1.0
SMTX_BasesMaximalSubmodules	96	10.9	0.0	2.2	0.0
PullBackH	173	13.6	2.6	2.0	0.2
FindPModules	592	53.5	52.4	8.7	8.5
FindPQuotients	88	53.5	53.5	8.7	8.7
LowIndexNormal	1	61.4	61.4	10.2	10.2

Group:  $C_2 * C_6$ 

Searching up to index : 500

How many normal groups are found: 862

Total Time (in s) in GAP: 56.9

Function	$\operatorname{Count}$	$\mathrm{AbsT/s}$	m ChildT/s	${ m AbsS/gb}$	ChildS/gb
MustCheckP	1344	0.0	0.0	0.0	0.0
FindTQuotients	1	0.6	0.6	0.0	0.0
PullBackH	770	7.2	1.2	0.8	0.1
${\bf SMTX\_BasesMaximalSubmodules}$	398	8.1	0.0	1.0	0.0

FindIntersections	362	8.3	7.8	1.7	1.7
$\operatorname{AddGroup}$	1145	15.3	14.0	2.8	2.6
FindPModules	683	47.9	46.9	7.4	7.3
FindPQuotients	363	47.9	47.9	7.4	7.4
LowIndexNormal	1	56.9	56.9	9.2	9.2

Group:  $C_2 * C_7$ 

Searching up to index : 1000

How many normal groups are found: 63

Total Time (in s) in GAP: 7.7

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
MustCheckP	385	0.0	0.0	0.0	0.0
FindIntersections	25	0.0	0.0	0.0	0.0
$\operatorname{AddGroup}$	79	0.4	0.4	0.0	0.0
FindTQuotients	1	0.5	0.5	0.0	0.0
SMTX_BasesMaximalSubmodules	29	1.1	0.0	0.2	0.0
PullBackH	55	1.7	0.3	0.2	0.0
FindPModules	299	7.1	6.9	1.0	0.9
FindPQuotients	26	7.1	7.1	1.0	1.0
LowIndexNormal	1	7.7	7.7	1.1	1.1

**Group**:  $C_2 * C_8$ 

Searching up to index : 500

How many normal groups are found: 1187

Total Time (in s) in GAP: 149.8

Function	$\operatorname{Count}$	AbsT/s	ChildT/s	$\mathrm{AbsS/gb}$	ChildS/gb
MustCheckP	1581	0.0	0.0	0.0	0.0
FindTQuotients	1	0.6	0.6	0.0	0.0
FindIntersections	465	13.8	12.5	2.6	2.5
SMTX_BasesMaximalSubmodules	505	20.2	0.2	2.6	0.0
PullBackH	1353	23.5	4.3	3.0	0.3

$\operatorname{AddGroup}$	1761	32.5	29.8	4.8	4.4
FindPModules	868	135.2	132.5	16.5	16.2
FindPQuotients	466	135.2	135.2	16.5	16.5
LowIndexNormal	1	149.8	149.8	19.2	19.2

Group:  $C_2 * C_9$ 

Searching up to index : 1000

How many normal groups are found : 358

Total Time (in s) in GAP: 47.1

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
MustCheckP	916	0.0	0.0	0.0	0.0
FindIntersections	183	2.9	2.8	0.7	0.7
FindTQuotients	1	5.2	5.1	0.8	0.8
SMTX_BasesMaximalSubmodules	168	5.5	0.0	0.6	0.0
AddGroup	490	7.2	7.0	1.2	1.1
PullBackH	339	8.2	1.5	0.8	0.1
FindPModules	485	38.9	38.2	5.0	4.9
FindPQuotients	184	39.0	39.0	5.0	5.0
LowIndexNormal	1	47.1	47.1	6.6	6.6

**Group**:  $C_2 * C_{10}$ 

Searching up to index: 500

How many normal groups are found: 469

Total Time (in s) in GAP: 30.9

Function	Count	AbsT/s	$\mathrm{ChildT/s}$	$\mathrm{AbsS/gb}$	ChildS/gb
MustCheckP	951	0.0	0.0	0.0	0.0
FindTQuotients	1	0.1	0.1	0.0	0.0
SMTX_BasesMaximalSubmodules	236	3.6	0.0	0.5	0.0
PullBackH	367	3.8	0.7	0.4	0.0
FindIntersections	226	5.6	5.5	1.3	1.3
AddGroup	567	9.8	9.5	2.1	2.0

FindPModules	458	25.0	24.5	4.4	4.3
FindPQuotients	227	25.1	25.1	4.4	4.4
LowIndexNormal	1	30.9	30.9	5.7	5.7

**Group**:  $C_2 * C_{11}$ 

Searching up to index : 1000

How many normal groups are found : 21

Total Time (in s) in GAP: 8.8

Function	Count	AbsT/s	$\mathrm{ChildT/s}$	$\mathrm{AbsS/gb}$	ChildS/gb
MustCheckP	317	0.0	0.0	0.0	0.0
FindIntersections	5	0.0	0.0	0.0	0.0
SMTX_BasesMaximalSubmodules	7	0.0	0.0	0.0	0.0
PullBackH	16	0.0	0.0	0.0	0.0
$\operatorname{AddGroup}$	28	0.1	0.1	0.0	0.0
FindPModules	271	1.1	1.1	0.1	0.1
FindPQuotients	6	1.1	1.1	0.1	0.1
FindTQuotients	1	7.6	7.6	1.3	1.3
${\bf LowIndexNormal}$	1	8.8	8.8	1.4	1.4

**Group**:  $C_2 * C_{12}$ 

Searching up to index : 150

How many normal groups are found: 355

Total Time (in s) in GAP: 8.9

Function	$\operatorname{Count}$	$\mathrm{AbsT/s}$	m ChildT/s	$\mathrm{AbsS/gb}$	ChildS/gb
MustCheckP	494	0.0	0.0	0.0	0.0
FindTQuotients	1	0.0	0.0	0.0	0.0
FindIntersections	151	0.7	0.6	0.0	0.0
PullBackH	378	0.7	0.1	0.0	0.0
SMTX_BasesMaximalSubmodules	181	1.5	0.0	0.1	0.0
AddGroup	476	1.7	1.5	0.2	0.1
FindPModules	308	8.1	7.8	0.9	0.8

FindPQuotients	152	8.1	8.1	0.9	0.9
LowIndexNormal	1	8.9	8.9	1.0	1.0