${\bf Free Products Comparison Magma}$

September 4, 2018

Group: $C_2 * C_3$

Searching up to index: 2500

How many normal groups are found : 527

Total Time in s:552.8

Function	$Count_GAP$	Count_MAGMA	$Time_GAP$	${ m Time_MAGMA}$
LowIndexNormal	1	1	552.8	416.89999999999998
FindPQuotients	247	247	504.5	155.
FindTQuotients	1	1	18.6	0.5999999999999998
FindIntersections	246	246	29.6	261.300000000000001
AddGroup	874	604	405.4	368.800000000000001

Group: $C_2 * C_4$

Searching up to index: 500

How many normal groups are found : 688

Total Time in s:410.1

Function	$Count_GAP$	$Count_MAGMA$	$Time_GAP$	$\operatorname{Time_MAGMA}$
LowIndexNormal	1	1	410.1	157.800000000000001
FindPQuotients	305	305	395.2	90.7000000000000003
FindTQuotients	1	1	0.2	0.200000000000000001
FindIntersections	304	304	14.5	66.9000000000000006
AddGroup	2534	852	286.7	102.

Group: $C_2 * C_5$

Searching up to index : 2000

How many normal groups are found : 205

Total Time in s: 197.8

Function	$Count_GAP$	$Count_MAGMA$	${ m Time_GAP}$	$Time_MAGMA$
LowIndexNormal	1	1	197.8	33.
FindPQuotients	88	88	185.8	30.199999999999999
FindTQuotients	1	1	7.4	0.2999999999999999
FindIntersections	87	87	4.5	2.399999999999999
AddGroup	355	225	125.9	6.5

Group: $C_2 * C_6$

Searching up to index: 500

How many normal groups are found : 862

Total Time in s: 639.3

Function	$Count_GAP$	$Count_MAGMA$	${ m Time_GAP}$	${ m Time_MAGMA}$
LowIndexNormal	1	1	639.3	188.90000000000001
FindPQuotients	363	363	616.3	108.40000000000001
FindTQuotients	1	1	0.9	0.200000000000000001
FindIntersections	362	362	22.0	80.29999999999997
AddGroup	2042	1077	511.9	118.

Group: $C_2 * C_7$

Searching up to index : 1000

How many normal groups are found: 63

Total Time in s: 22.0

Function	$Count_GAP$	Count_MAGMA	$Time_GAP$	$Time_MAGMA$
LowIndexNormal	1	1	22.0	6.40000000000000004
FindPQuotients	26	26	21.3	6.099999999999996
FindTQuotients	1	1	0.6	0.200000000000000001

FindIntersections	25	25	0.0	0.100000000000000001
AddGroup	91	69	11.1	0.5

Group: $C_2 * C_8$

Searching up to index : 500

How many normal groups are found: 1187

Total Time in s: 4924.7

Function	$Count_GAP$	Count_MAGMA	$Time_GAP$	$\operatorname{Time_MAGMA}$
LowIndexNormal	1	1	4924.7	365.
FindPQuotients	466	466	4875.5	231.69999999999999
FindTQuotients	1	1	0.8	0.200000000000000001
FindIntersections	465	465	48.3	133.09999999999999
AddGroup	12607	1688	3835.2	240.1999999999999

Group: $C_2 * C_9$

Searching up to index : 1000

How many normal groups are found: 358

Total Time in s: 240.4

Function	$Count_GAP$	$Count_MAGMA$	$Time_GAP$	$Time_MAGMA$
LowIndexNormal	1	1	240.4	61.39999999999999
FindPQuotients	184	184	221.2	48.29999999999997
FindTQuotients	1	1	6.2	0.2999999999999999
FindIntersections	183	183	12.9	12.9
AddGroup	675	445	168.0	23.8000000000000001

Group : $C_2 * C_{10}$

Searching up to index: 500

How many normal groups are found: 469

Total Time in s: 105.4

Function	$Count_GAP$	$Count_MAGMA$	$Time_GAP$	$\operatorname{Time_MAGMA}$
LowIndexNormal	1	1	105.4	87.09999999999994
FindPQuotients	227	227	97.2	49.5
FindTQuotients	1	1	0.2	0.200000000000000001
FindIntersections	226	226	7.9	37.39999999999999
AddGroup	633	551	73.0	51.89999999999999

Group: $C_2 * C_{11}$

Searching up to index : 1000

How many normal groups are found : 21

Total Time in s : 13.3

Function	$Count_GAP$	$\operatorname{Count}_{-}\operatorname{MAGMA}$	$Time_GAP$	${ m Time_MAGMA}$
LowIndexNormal	1	1	13.3	1.5
FindPQuotients	6	6	3.2	1.3
FindTQuotients	1	1	10.1	0.200000000000000001
FindIntersections	5	5	0.0	0.
AddGroup	28	21	1.3	0.

Group : $C_2 * C_{12}$

Searching up to index: 150

How many normal groups are found: 355

Total Time in s:91.5

Function	$Count_GAP$	Count_MAGMA	$Time_GAP$	$\operatorname{Time_MAGMA}$
LowIndexNormal	1	1	91.5	37.799999999999997
FindPQuotients	152	152	84.7	34.2000000000000003
FindTQuotients	1	1	0.0	0.200000000000000001
FindIntersections	151	151	6.6	3.399999999999999
AddGroup	1071	473	59.8	6.