FreeProductsExtendedProfile

September 4, 2018

Group : $C_2 * C_3$
Searching up to index : 2500
How many normal groups are found : 521
Total Time in s : 521.7
Group : $C_2 * C_3$
Searching up to index : 2500
How many normal groups are found : 521
Total Time in s : 513.5

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	1771	0.0	0.0	0.0	0.0
NextPrimeInt	1706	0.0	0.0	0.0	0.0
MustCheckP	1706	0.0	0.0	0.0	0.0
MinSubgroupSizes	1706	0.0	0.0	0.0	0.0
GroupHomomorphismByImagesNC	3332	0.3	0.0	0.0	0.0
GModuleByMats	34868	0.5	0.0	0.0	0.0
NaturalHomomorphismBySubspace	546	0.8	0.0	0.0	0.0
EpimorphismQuotientSystem	981	1.0	0.2	0.1	0.0
Index	324331	1.6	0.0	0.4	0.0
GeneratorsOfMagmaWithInverses	1877523	1.7	0.3	0.0	0.0
IsomorphismFpGroup	1154	2.3	0.0	0.2	0.0
PQuotient	1962	2.8	0.0	0.2	0.0
ExponentSum	171314	6.5	0.0	0.5	0.0
Intersection	156138	6.6	0.3	1.1	0.0
PreImagesRepresentative	74768	7.2	0.0	0.4	0.0
LowIndexSubgroupsFpGroup	2	7.4	0.0	1.4	0.0
Core	5032	9.2	6.6	1.7	1.1
Image	220140	12.1	0.1	2.5	0.0

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
FindTQuotients	1	17.6	17.5	3.3	3.3
PullBackH	546	22.7	4.2	2.7	0.3
SMTX_BasesMaximalSubmodules	338	26.3	0.2	3.5	0.0
FindIntersections	246	34.2	34.1	12.1	12.1
PreImage	10682	44.8	0.5	20.4	0.0
Kernel	546	44.8	44.7	20.5	20.4
IsSubgroup	11173	377.6	0.6	208.1	0.0
AddGroup	868	379.3	378.7	208.5	208.5
FindPModules	981	469.7	467.7	227.2	227.0
FindPQuotients	247	469.8	469.8	227.2	227.2
LowIndexNormal	1	521.7	521.7	242.7	242.7

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	1771	0.0	0.0	0.0	0.0
MustCheckP	1706	0.0	0.0	0.0	0.0
NextPrimeInt	1706	0.0	0.0	0.0	0.0
MinSubgroupSizes	1706	0.0	0.0	0.0	0.0
GroupHomomorphismByImagesNC	3332	0.3	0.0	0.0	0.0
GModuleByMats	34868	0.4	0.0	0.0	0.0
NaturalHomomorphismBySubspace	546	0.8	0.0	0.0	0.0
EpimorphismQuotientSystem	981	1.0	0.1	0.1	0.0
Index	324331	1.6	0.0	0.4	0.0
GeneratorsOfMagmaWithInverses	1877523	1.7	0.2	0.0	0.0
IsomorphismFpGroup	1154	2.2	0.0	0.2	0.0
PQuotient	1962	2.8	0.0	0.2	0.0
ExponentSum	171314	6.5	0.0	0.5	0.0
Intersection	156138	6.5	0.3	1.1	0.0
PreImagesRepresentative	74768	7.1	0.0	0.4	0.0
LowIndexSubgroupsFpGroup	2	7.6	0.0	1.4	0.0
Core	5032	9.1	6.6	1.7	1.1
Image	220140	12.1	0.1	2.5	0.0
FindTQuotients	1	17.7	17.7	3.3	3.3
PullBackH	546	23.0	4.3	2.7	0.3
SMTX_BasesMaximalSubmodules	338	25.6	0.1	3.5	0.0
FindIntersections	246	29.8	29.7	12.1	12.1
PreImage	10682	45.5	0.6	20.4	0.0

Kernel	546	45.6	45.5	20.5	20.4
IsSubgroup	11173	369.3	0.6	208.1	0.0
AddGroup	868	370.9	370.3	208.5	208.5
FindPModules	981	465.8	463.7	227.2	227.0
FindPQuotients	247	465.8	465.8	227.2	227.2
LowIndexNormal	1	513.5	513.5	242.7	242.7

Group : $C_2 * C_4$
Searching up to index : 500
How many normal groups are found : 688
Total Time in s : 413.2
Group : $C_2 * C_4$
Searching up to index : 500
How many normal groups are found : 688
Total Time in s : 393.9

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	1637	0.0	0.0	0.0	0.0
NextPrimeInt	1182	0.0	0.0	0.0	0.0
MustCheckP	1182	0.0	0.0	0.0	0.0
MinSubgroupSizes	1182	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.0	0.0	0.0	0.0
Core	199	0.1	0.0	0.0	0.0
FindTQuotients	1	0.2	0.2	0.0	0.0
Intersection	90004	0.3	0.0	0.0	0.0
GroupHomomorphismByImagesNC	10147	0.7	0.0	0.0	0.0
GModuleByMats	67210	0.8	0.0	0.0	0.0
EpimorphismQuotientSystem	1074	0.9	0.1	0.1	0.0
IsomorphismFpGroup	1235	1.0	0.0	0.1	0.0
NaturalHomomorphismBySubspace	2230	1.3	0.0	0.1	0.0
Index	641460	1.9	0.0	0.1	0.0
PQuotient	2148	3.0	0.0	0.2	0.0
GeneratorsOfMagmaWithInverses	3334140	3.0	0.6	0.0	0.0
ExponentSum	218118	4.1	0.0	0.3	0.0
PreImagesRepresentative	123774	5.2	0.0	0.3	0.0
Image	395614	12.5	0.2	1.4	0.0

FindIntersections	304	15.0	14.7	4.2	4.2
PullBackH	2230	16.6	2.8	1.7	0.2
SMTX_BasesMaximalSubmodules	859	29.4	0.4	2.7	0.0
PreImage	4676	48.6	1.8	6.6	0.1
Kernel	2230	48.9	48.6	6.6	6.6
IsSubgroup	34700	285.8	1.8	99.8	0.0
AddGroup	2534	287.8	286.5	100.0	99.9
FindPModules	1074	397.8	394.3	109.7	109.5
FindPQuotients	305	397.8	397.8	109.7	109.7
LowIndexNormal	1	413.2	413.2	114.1	114.1

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
NextPrimeInt	1182	0.0	0.0	0.0	0.0
IsPowerOf	1637	0.0	0.0	0.0	0.0
MustCheckP	1182	0.0	0.0	0.0	0.0
MinSubgroupSizes	1182	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.0	0.0	0.0	0.0
Core	199	0.1	0.0	0.0	0.0
Intersection	90004	0.2	0.0	0.0	0.0
FindTQuotients	1	0.3	0.3	0.0	0.0
GroupHomomorphismByImagesNC	10147	0.6	0.0	0.0	0.0
GModuleByMats	67210	0.7	0.0	0.0	0.0
EpimorphismQuotientSystem	1074	0.8	0.1	0.1	0.0
IsomorphismFpGroup	1235	0.9	0.0	0.1	0.0
NaturalHomomorphismBySubspace	2230	1.3	0.0	0.1	0.0
Index	641460	1.8	0.0	0.1	0.0
GeneratorsOfMagmaWithInverses	3334140	2.8	0.4	0.0	0.0
PQuotient	2148	3.1	0.0	0.2	0.0
ExponentSum	218118	4.1	0.0	0.3	0.0
PreImagesRepresentative	123774	4.8	0.0	0.3	0.0
Image	395614	12.0	0.2	1.4	0.0
FindIntersections	304	14.1	13.7	4.2	4.2
PullBackH	2230	15.8	2.8	1.7	0.2
SMTX_BasesMaximalSubmodules	859	28.3	0.3	2.7	0.0
PreImage	4676	46.4	1.7	6.6	0.1
Kernel	2230	46.6	46.4	6.6	6.6

IsSubgroup	34700	271.7	1.8	99.8	0.0
AddGroup	2534	273.7	272.5	100.0	99.9
FindPModules	1074	379.5	376.1	109.7	109.5
FindPQuotients	305	379.5	379.5	109.7	109.7
LowIndexNormal	1	393.9	393.9	114.1	114.1

Group : $C_2 * C_5$
Searching up to index : 2000
How many normal groups are found : 203
Total Time in s : 203.0
Group : $C_2 * C_5$
Searching up to index : 2000
How many normal groups are found : 203
Total Time in s : 193.4

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	707	0.0	0.0	0.0	0.0
NextPrimeInt	894	0.0	0.0	0.0	0.0
MustCheckP	894	0.0	0.0	0.0	0.0
MinSubgroupSizes	894	0.0	0.0	0.0	0.0
GroupHomomorphismByImagesNC	1386	0.1	0.0	0.0	0.0
GModuleByMats	13458	0.3	0.0	0.0	0.0
Index	70135	0.3	0.0	0.0	0.0
NaturalHomomorphismBySubspace	182	0.5	0.0	0.0	0.0
EpimorphismQuotientSystem	599	0.6	0.0	0.1	0.0
GeneratorsOfMagmaWithInverses	778480	0.7	0.1	0.0	0.0
LowIndexSubgroupsFpGroup	2	1.5	0.0	0.2	0.0
PQuotient	1198	1.6	0.0	0.1	0.0
IsomorphismFpGroup	664	1.9	0.0	0.1	0.0
Intersection	51412	2.6	0.1	0.3	0.0
Core	3194	3.7	2.6	0.5	0.3
ExponentSum	85928	4.7	0.0	0.3	0.0
FindIntersections	87	4.9	4.9	1.5	1.5
PreImagesRepresentative	42776	5.7	0.0	0.3	0.0
FindTQuotients	1	7.1	7.1	1.1	1.1
Image	116704	7.9	0.0	0.4	0.0

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
PreImage	4468	12.6	0.2	2.9	0.0
Kernel	182	12.6	12.6	2.9	2.9
SMTX_BasesMaximalSubmodules	111	15.8	0.0	2.3	0.0
PullBackH	182	15.8	2.9	2.0	0.2
IsSubgroup	5726	130.8	0.2	56.6	0.0
AddGroup	353	131.0	130.9	56.7	56.7
FindPModules	599	190.9	189.2	63.7	63.5
FindPQuotients	88	190.9	190.9	63.7	63.7
LowIndexNormal	1	203.0	203.0	66.4	66.4

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	707	0.0	0.0	0.0	0.0
NextPrimeInt	894	0.0	0.0	0.0	0.0
MustCheckP	894	0.0	0.0	0.0	0.0
MinSubgroupSizes	894	0.0	0.0	0.0	0.0
GroupHomomorphismByImagesNC	1386	0.1	0.0	0.0	0.0
GModuleByMats	13458	0.2	0.0	0.0	0.0
Index	70135	0.3	0.0	0.0	0.0
NaturalHomomorphismBySubspace	182	0.5	0.0	0.0	0.0
EpimorphismQuotientSystem	599	0.5	0.0	0.1	0.0
GeneratorsOfMagmaWithInverses	778480	0.6	0.0	0.0	0.0
PQuotient	1198	1.6	0.0	0.1	0.0
LowIndexSubgroupsFpGroup	2	1.8	0.0	0.2	0.0
IsomorphismFpGroup	664	1.9	0.0	0.1	0.0
Intersection	51412	2.4	0.1	0.3	0.0
Core	3194	3.4	2.4	0.5	0.3
FindIntersections	87	4.6	4.6	1.5	1.5
ExponentSum	85928	4.8	0.0	0.3	0.0
PreImagesRepresentative	42776	5.4	0.0	0.3	0.0
FindTQuotients	1	7.1	7.1	1.1	1.1
Image	116704	7.6	0.0	0.4	0.0
PreImage	4468	12.0	0.2	2.9	0.0
Kernel	182	12.0	12.0	2.9	2.9
PullBackH	182	15.5	3.0	2.0	0.2
SMTX_BasesMaximalSubmodules	111	15.6	0.0	2.3	0.0
IsSubgroup	5726	123.1	0.2	56.6	0.0

AddGroup	353	123.3	123.2	56.7	56.7
FindPModules	599	181.5	179.9	63.7	63.5
FindPQuotients	88	181.5	181.5	63.7	63.7
LowIndexNormal	1	193.4	193.4	66.4	66.4

Group : $C_2 * C_6$
Searching up to index : 500
How many normal groups are found : 862
Total Time in s : 626.7
Group : $C_2 * C_6$
Searching up to index : 500
How many normal groups are found : 862
Total Time in s : 605.0

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	1947	0.0	0.0	0.0	0.0
NextPrimeInt	1344	0.0	0.0	0.0	0.0
MustCheckP	1344	0.0	0.0	0.0	0.0
MinSubgroupSizes	1344	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.0	0.0	0.0	0.0
Core	400	0.2	0.1	0.0	0.0
Intersection	130204	0.4	0.0	0.0	0.0
GroupHomomorphismByImagesNC	7742	0.6	0.0	0.0	0.0
GModuleByMats	53354	0.6	0.0	0.0	0.0
FindTQuotients	1	0.8	0.8	0.1	0.1
EpimorphismQuotientSystem	891	0.8	0.1	0.1	0.0
NaturalHomomorphismBySubspace	1667	1.5	0.0	0.1	0.0
IsomorphismFpGroup	1084	1.6	0.0	0.1	0.0
Index	840619	1.9	0.0	0.1	0.0
PQuotient	1782	2.8	0.0	0.3	0.0
GeneratorsOfMagmaWithInverses	4632092	4.5	0.9	0.0	0.0
ExponentSum	253034	6.3	0.0	0.4	0.0
PreImagesRepresentative	123492	6.9	0.0	0.5	0.0
Image	391486	13.8	0.2	1.1	0.0
FindIntersections	362	23.3	22.8	6.2	6.2
PullBackH	1667	23.7	4.3	2.5	0.3

SMTX_BasesMaximalSubmodules	663	27.1	0.3	2.7	0.0
PreImage	3746	40.7	1.5	5.4	0.1
Kernel	1667	40.9	40.6	5.4	5.4
IsSubgroup	52909	497.6	2.9	175.6	0.0
AddGroup	2042	500.4	498.6	175.8	175.6
FindPModules	891	602.5	599.2	183.1	182.8
FindPQuotients	363	602.6	602.6	183.1	183.1
LowIndexNormal	1	626.7	626.7	189.5	189.5

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	1947	0.0	0.0	0.0	0.0
NextPrimeInt	1344	0.0	0.0	0.0	0.0
MinSubgroupSizes	1344	0.0	0.0	0.0	0.0
MustCheckP	1344	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.0	0.0	0.0	0.0
Core	400	0.2	0.1	0.0	0.0
Intersection	130204	0.4	0.0	0.0	0.0
GroupHomomorphismByImagesNC	7742	0.6	0.0	0.0	0.0
GModuleByMats	53354	0.6	0.0	0.0	0.0
EpimorphismQuotientSystem	891	0.8	0.1	0.1	0.0
FindTQuotients	1	0.8	0.8	0.1	0.1
NaturalHomomorphismBySubspace	1667	1.3	0.0	0.1	0.0
IsomorphismFpGroup	1084	1.5	0.0	0.1	0.0
Index	840619	2.0	0.0	0.1	0.0
PQuotient	1782	2.8	0.0	0.3	0.0
GeneratorsOfMagmaWithInverses	4632092	4.0	0.5	0.0	0.0
ExponentSum	253034	6.1	0.0	0.4	0.0
PreImagesRepresentative	123492	6.8	0.0	0.5	0.0
Image	391486	13.3	0.1	1.1	0.0
FindIntersections	362	22.2	21.7	6.2	6.2
PullBackH	1667	23.1	4.3	2.5	0.3
SMTX_BasesMaximalSubmodules	663	26.2	0.3	2.7	0.0
PreImage	3746	39.4	1.4	5.4	0.1
Kernel	1667	39.6	39.4	5.4	5.4
IsSubgroup	52909	479.5	2.9	175.6	0.0
AddGroup	2042	482.4	480.5	175.8	175.6

FindPModules	891	581.8	578.3	183.1	182.8
FindPQuotients	363	581.9	581.9	183.1	183.1
LowIndexNormal	1	605.0	605.0	189.5	189.5

Group : $C_2 * C_7$
Searching up to index : 1000
How many normal groups are found : 63
Total Time in s : 22.8
Group : $C_2 * C_7$
Searching up to index : 1000
How many normal groups are found : 63
Total Time in s : 25.6

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	248	0.0	0.0	0.0	0.0
NextPrimeInt	385	0.0	0.0	0.0	0.0
MustCheckP	385	0.0	0.0	0.0	0.0
MinSubgroupSizes	385	0.0	0.0	0.0	0.0
FindIntersections	25	0.0	0.0	0.0	0.0
GModuleByMats	2292	0.0	0.0	0.0	0.0
GroupHomomorphismByImagesNC	582	0.0	0.0	0.0	0.0
Index	7637	0.0	0.0	0.0	0.0
NaturalHomomorphismBySubspace	67	0.1	0.0	0.0	0.0
GeneratorsOfMagmaWithInverses	123876	0.1	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.1	0.0	0.0	0.0
EpimorphismQuotientSystem	299	0.2	0.0	0.0	0.0
IsomorphismFpGroup	320	0.2	0.0	0.0	0.0
Intersection	6226	0.3	0.0	0.0	0.0
Core	518	0.4	0.3	0.0	0.0
PreImagesRepresentative	6320	0.5	0.0	0.0	0.0
FindTQuotients	1	0.6	0.6	0.1	0.1
ExponentSum	18918	0.7	0.0	0.0	0.0
PQuotient	598	0.9	0.0	0.0	0.0
Image	21950	0.9	0.0	0.0	0.0
SMTX_BasesMaximalSubmodules	33	1.7	0.0	0.2	0.0
PreImage	650	2.2	0.0	0.3	0.0

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
Kernel	67	2.2	2.2	0.3	0.3
PullBackH	67	3.0	0.5	0.3	0.0
IsSubgroup	778	11.7	0.0	4.7	0.0
AddGroup	91	11.7	11.7	4.7	4.7
FindPModules	299	22.1	21.8	6.0	5.9
FindPQuotients	26	22.1	22.1	6.0	6.0
LowIndexNormal	1	22.8	22.8	6.1	6.1

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	248	0.0	0.0	0.0	0.0
MustCheckP	385	0.0	0.0	0.0	0.0
NextPrimeInt	385	0.0	0.0	0.0	0.0
MinSubgroupSizes	385	0.0	0.0	0.0	0.0
FindIntersections	25	0.0	0.0	0.0	0.0
GModuleByMats	2292	0.0	0.0	0.0	0.0
GroupHomomorphismByImagesNC	582	0.0	0.0	0.0	0.0
Index	7637	0.0	0.0	0.0	0.0
GeneratorsOfMagmaWithInverses	123876	0.1	0.0	0.0	0.0
NaturalHomomorphismBySubspace	67	0.1	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.1	0.0	0.0	0.0
IsomorphismFpGroup	320	0.2	0.0	0.0	0.0
Intersection	6226	0.3	0.0	0.0	0.0
EpimorphismQuotientSystem	299	0.4	0.0	0.0	0.0
Core	518	0.4	0.3	0.0	0.0
PreImagesRepresentative	6320	0.5	0.0	0.0	0.0
FindTQuotients	1	0.7	0.7	0.1	0.1
ExponentSum	18918	0.7	0.0	0.0	0.0
Image	21950	1.0	0.0	0.0	0.0
PQuotient	598	1.2	0.0	0.0	0.0
SMTX_BasesMaximalSubmodules	33	1.9	0.0	0.2	0.0
PreImage	650	2.3	0.0	0.3	0.0
Kernel	67	2.3	2.3	0.3	0.3
PullBackH	67	3.2	0.6	0.3	0.0
IsSubgroup	778	13.3	0.0	4.7	0.0
AddGroup	91	13.3	13.3	4.7	4.7
FindPModules	299	24.8	24.5	6.0	5.9

Function		Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
FindPQuotients		26	24.8	24.8	6.0	6.0
LowIndexNormal		1	25.6	25.6	6.1	6.1

Group : $C_2 * C_8$
Searching up to index : 500
How many normal groups are found : 1187
Total Time in s : 4855.3
Group : $C_2 * C_8$
Searching up to index : 500
How many normal groups are found : 1187
Total Time in s : 4916.2

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	2278	0.0	0.0	0.0	0.0
NextPrimeInt	1581	0.0	0.0	0.0	0.0
MustCheckP	1581	0.0	0.0	0.0	0.0
MinSubgroupSizes	1581	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.1	0.0	0.0	0.0
Core	415	0.2	0.1	0.0	0.0
Intersection	211588	0.5	0.0	0.0	0.0
FindTQuotients	1	0.9	0.9	0.1	0.1
GroupHomomorphismByImagesNC	52190	3.6	0.0	0.3	0.0
IsomorphismFpGroup	3402	4.1	0.1	0.3	0.0
EpimorphismQuotientSystem	3104	4.3	0.7	0.5	0.0
GModuleByMats	455278	5.1	0.1	0.4	0.0
PQuotient	6208	8.7	0.0	0.8	0.0
Index	4269543	12.2	0.5	1.0	0.0
NaturalHomomorphismBySubspace	12199	12.6	0.0	0.9	0.0
GeneratorsOfMagmaWithInverses	39938239	35.8	6.3	0.2	0.0
FindIntersections	465	46.8	45.1	13.0	13.0
ExponentSum	1798858	54.5	0.3	4.1	0.0
PreImagesRepresentative	1041816	57.3	0.5	4.4	0.0
Image	3403422	120.3	1.7	10.6	0.0
SMTX_BasesMaximalSubmodules	2884	194.6	3.0	18.5	0.1
PullBackH	12199	215.8	38.0	25.0	2.9
PreImage	24830	410.9	11.3	38.0	1.1

Kernel	12199	412.6	410.9	38.1	38.0
IsSubgroup	372534	3764.6	24.9	1236.4	0.2
AddGroup	12607	3776.6	3769.2	1236.9	1236.5
FindPModules	3104	4807.5	4780.6	1326.8	1325.1
FindPQuotients	466	4807.5	4807.5	1326.8	1326.8
LowIndexNormal	1	4855.3	4855.3	1340.0	1340.0

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	2278	0.0	0.0	0.0	0.0
NextPrimeInt	1581	0.0	0.0	0.0	0.0
MustCheckP	1581	0.0	0.0	0.0	0.0
MinSubgroupSizes	1581	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.0	0.0	0.0	0.0
Core	415	0.2	0.1	0.0	0.0
Intersection	211588	0.5	0.0	0.0	0.0
FindTQuotients	1	1.0	1.0	0.1	0.1
GroupHomomorphismByImagesNC	52190	3.9	0.1	0.3	0.0
EpimorphismQuotientSystem	3104	4.1	0.8	0.5	0.0
IsomorphismFpGroup	3402	4.1	0.0	0.3	0.0
GModuleByMats	455278	5.3	0.1	0.4	0.0
PQuotient	6208	8.9	0.0	0.8	0.0
Index	4269543	12.5	0.4	1.0	0.0
NaturalHomomorphismBySubspace	12199	12.9	0.0	0.9	0.0
GeneratorsOfMagmaWithInverses	39938239	35.9	5.7	0.2	0.0
FindIntersections	465	50.1	48.5	13.0	13.0
ExponentSum	1798858	54.9	0.3	4.1	0.0
PreImagesRepresentative	1041816	56.8	0.5	4.4	0.0
Image	3403422	121.7	1.7	10.6	0.0
SMTX_BasesMaximalSubmodules	2884	195.9	3.2	18.5	0.1
PullBackH	12199	217.4	38.7	25.0	2.9
PreImage	24830	413.3	11.7	38.0	1.1
Kernel	12199	415.0	413.3	38.1	38.0
IsSubgroup	372534	3818.3	25.5	1236.4	0.2
AddGroup	12607	3830.6	3823.0	1236.9	1236.5
FindPModules	3104	4864.9	4837.5	1326.8	1325.1
FindPQuotients	466	4864.9	4864.9	1326.8	1326.8
LowIndexNormal	1	4916.2	4916.2	1340.0	1340.0

Group : $C_2 * C_9$

Searching up to index : 1000

How many normal groups are found : 358

Total Time in s : 197.5

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	1016	0.0	0.0	0.0	0.0
NextPrimeInt	916	0.0	0.0	0.0	0.0
MustCheckP	916	0.0	0.0	0.0	0.0
MinSubgroupSizes	916	0.0	0.0	0.0	0.0
GroupHomomorphismByImagesNC	2744	0.2	0.0	0.0	0.0
GModuleByMats	21396	0.2	0.0	0.0	0.0
EpimorphismQuotientSystem	525	0.4	0.0	0.0	0.0
NaturalHomomorphismBySubspace	524	0.5	0.0	0.0	0.0
Index	151924	0.6	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	1.1	0.0	0.1	0.0
GeneratorsOfMagmaWithInverses	1572733	1.2	0.1	0.0	0.0
IsomorphismFpGroup	654	1.4	0.0	0.1	0.0
Intersection	84152	2.5	0.1	0.4	0.0
PQuotient	1050	3.0	0.0	0.8	0.0
ExponentSum	135448	3.4	0.0	0.2	0.0
Core	4152	3.6	2.6	0.5	0.4
PreImagesRepresentative	47908	4.3	0.0	0.3	0.0
FindTQuotients	1	5.3	5.3	0.8	0.8
Image	159372	6.0	0.1	0.5	0.0
SMTX_BasesMaximalSubmodules	225	9.9	0.1	1.1	0.0
FindIntersections	183	10.4	10.3	3.5	3.5
PullBackH	524	13.5	2.6	1.3	0.2
PreImage	5262	15.3	0.4	2.4	0.0
Kernel	524	15.3	15.3	2.4	2.4
IsSubgroup	13159	135.0	0.6	57.3	0.0
AddGroup	675	135.5	135.2	57.4	57.4
FindPModules	525	181.6	180.5	60.8	60.7
FindPQuotients	184	181.7	181.7	60.9	60.9
LowIndexNormal	1	197.5	197.5	65.3	65.3

Group : $C_2 * C_{10}$
Searching up to index : 500
How many normal groups are found : 469
Total Time in s : 101.5
Group : $C_2 * C_{10}$
Searching up to index : 500
How many normal groups are found : 469
Total Time in s : 104.6

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	1302	0.0	0.0	0.0	0.0
MustCheckP	951	0.0	0.0	0.0	0.0
NextPrimeInt	951	0.0	0.0	0.0	0.0
MinSubgroupSizes	951	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.0	0.0	0.0	0.0
Core	188	0.1	0.0	0.0	0.0
GModuleByMats	8900	0.1	0.0	0.0	0.0
GroupHomomorphismByImagesNC	2296	0.1	0.0	0.0	0.0
FindTQuotients	1	0.2	0.2	0.0	0.0
Intersection	51102	0.2	0.0	0.0	0.0
NaturalHomomorphismBySubspace	433	0.2	0.0	0.0	0.0
EpimorphismQuotientSystem	474	0.3	0.0	0.0	0.0
Index	187084	0.5	0.0	0.0	0.0
GeneratorsOfMagmaWithInverses	754079	0.7	0.1	0.0	0.0
IsomorphismFpGroup	574	0.9	0.0	0.0	0.0
ExponentSum	71913	1.6	0.0	0.1	0.0
PQuotient	948	1.6	0.0	0.2	0.0
PreImagesRepresentative	27894	1.9	0.0	0.1	0.0
Image	89992	3.4	0.0	0.2	0.0
SMTX_BasesMaximalSubmodules	268	5.7	0.0	0.6	0.0
PullBackH	433	5.9	1.1	0.6	0.0
FindIntersections	226	6.9	6.8	1.8	1.8
PreImage	1058	9.1	0.3	1.9	0.0
Kernel	433	9.1	9.1	1.9	1.9
IsSubgroup	10390	69.4	0.4	30.9	0.0
AddGroup	633	70.1	69.7	31.0	30.9
FindPModules	474	94.3	93.5	33.3	33.2
FindPQuotients	227	94.4	94.4	33.3	33.3
LowIndexNormal	1	101.5	101.5	35.2	35.2

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Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	1302	0.0	0.0	0.0	0.0
NextPrimeInt	951	0.0	0.0	0.0	0.0
MustCheckP	951	0.0	0.0	0.0	0.0
MinSubgroupSizes	951	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.0	0.0	0.0	0.0
Core	188	0.1	0.0	0.0	0.0
GModuleByMats	8900	0.1	0.0	0.0	0.0
GroupHomomorphismByImagesNC	2296	0.1	0.0	0.0	0.0
FindTQuotients	1	0.2	0.2	0.0	0.0
Intersection	51102	0.2	0.0	0.0	0.0
NaturalHomomorphismBySubspace	433	0.2	0.0	0.0	0.0
EpimorphismQuotientSystem	474	0.3	0.0	0.0	0.0
Index	187084	0.5	0.0	0.0	0.0
GeneratorsOfMagmaWithInverses	754079	0.7	0.1	0.0	0.0
IsomorphismFpGroup	574	0.9	0.0	0.0	0.0
ExponentSum	71913	1.6	0.0	0.1	0.0
PQuotient	948	1.8	0.0	0.2	0.0
PreImagesRepresentative	27894	1.8	0.0	0.1	0.0
Image	89992	3.4	0.0	0.2	0.0
SMTX_BasesMaximalSubmodules	268	5.8	0.0	0.6	0.0
PullBackH	433	6.0	1.0	0.6	0.0
FindIntersections	226	7.1	7.0	1.8	1.8
PreImage	1058	9.0	0.4	1.9	0.0
Kernel	433	9.1	9.0	1.9	1.9
IsSubgroup	10390	72.1	0.4	30.9	0.0
AddGroup	633	72.9	72.3	31.0	30.9
FindPModules	474	97.2	96.3	33.3	33.2
FindPQuotients	227	97.2	97.2	33.3	33.3
LowIndexNormal	1	104.6	104.6	35.2	35.2

Group : $C_2 * C_{11}$
Searching up to index : 1000
How many normal groups are found : 21
Total Time in s : 11.8
Group : $C_2 * C_{11}$

Searching up to index : 1000
How many normal groups are found : 21
Total Time in s : 12.0

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	164	0.0	0.0	0.0	0.0
FindIntersections	5	0.0	0.0	0.0	0.0
NextPrimeInt	317	0.0	0.0	0.0	0.0
GModuleByMats	156	0.0	0.0	0.0	0.0
MinSubgroupSizes	317	0.0	0.0	0.0	0.0
MustCheckP	317	0.0	0.0	0.0	0.0
NaturalHomomorphismBySubspace	16	0.0	0.0	0.0	0.0
PreImagesRepresentative	176	0.0	0.0	0.0	0.0
IsomorphismFpGroup	277	0.0	0.0	0.0	0.0
Image	1804	0.0	0.0	0.0	0.0
ExponentSum	2678	0.0	0.0	0.0	0.0
GroupHomomorphismByImagesNC	335	0.0	0.0	0.0	0.0
SMTX_BasesMaximalSubmodules	7	0.0	0.0	0.0	0.0
PullBackH	16	0.1	0.0	0.0	0.0
Kernel	16	0.1	0.1	0.0	0.0
Index	30688	0.1	0.0	0.0	0.0
PreImage	6524	0.1	0.0	0.0	0.0
EpimorphismQuotientSystem	271	0.1	0.0	0.0	0.0
GeneratorsOfMagmaWithInverses	598421	0.5	0.0	0.0	0.0
PQuotient	542	0.7	0.0	0.0	0.0
IsSubgroup	186	1.2	0.0	0.5	0.0
AddGroup	28	1.2	1.2	0.5	0.5
LowIndexSubgroupsFpGroup	2	2.0	0.0	0.2	0.0
FindPModules	271	2.4	2.4	0.7	0.7
FindPQuotients	6	2.5	2.5	0.7	0.7
Intersection	85446	4.8	0.2	0.6	0.0
Core	6494	6.9	4.9	1.0	0.6
FindTQuotients	1	9.3	9.2	1.3	1.3
LowIndexNormal	1	11.8	11.8	2.0	2.0

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb

16

IsPowerOf	164	0.0	0.0	0.0	0.0
FindIntersections	5	0.0	0.0	0.0	0.0
NextPrimeInt	317	0.0	0.0	0.0	0.0
GModuleByMats	156	0.0	0.0	0.0	0.0
MustCheckP	317	0.0	0.0	0.0	0.0
NaturalHomomorphismBySubspace	16	0.0	0.0	0.0	0.0
MinSubgroupSizes	317	0.0	0.0	0.0	0.0
PreImagesRepresentative	176	0.0	0.0	0.0	0.0
IsomorphismFpGroup	277	0.0	0.0	0.0	0.0
Image	1804	0.0	0.0	0.0	0.0
ExponentSum	2678	0.0	0.0	0.0	0.0
GroupHomomorphismByImagesNC	335	0.0	0.0	0.0	0.0
SMTX_BasesMaximalSubmodules	7	0.0	0.0	0.0	0.0
PullBackH	16	0.1	0.0	0.0	0.0
Kernel	16	0.1	0.1	0.0	0.0
PreImage	6524	0.1	0.0	0.0	0.0
Index	30688	0.1	0.0	0.0	0.0
EpimorphismQuotientSystem	271	0.1	0.0	0.0	0.0
GeneratorsOfMagmaWithInverses	598421	0.4	0.0	0.0	0.0
PQuotient	542	0.8	0.0	0.0	0.0
IsSubgroup	186	1.4	0.0	0.5	0.0
AddGroup	28	1.4	1.4	0.5	0.5
LowIndexSubgroupsFpGroup	2	2.0	0.0	0.2	0.0
FindPModules	271	2.6	2.6	0.7	0.7
FindPQuotients	6	2.7	2.7	0.7	0.7
Intersection	85446	4.8	0.2	0.6	0.0
Core	6494	7.0	5.0	1.0	0.6
FindTQuotients	1	9.3	9.2	1.3	1.3
LowIndexNormal	1	12.0	12.0	2.0	2.0

Group : $C_2 * C_{12}$
Searching up to index : 150
How many normal groups are found : 355
Total Time in s : 85.4
Group : $C_2 * C_{12}$
Searching up to index : 150
How many normal groups are found : 355

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Total Time in s : 88.1

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	669	0.0	0.0	0.0	0.0
NextPrimeInt	494	0.0	0.0	0.0	0.0
MinSubgroupSizes	494	0.0	0.0	0.0	0.0
MustCheckP	494	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.0	0.0	0.0	0.0
Core	22	0.0	0.0	0.0	0.0
FindTQuotients	1	0.0	0.0	0.0	0.0
Intersection	21354	0.0	0.0	0.0	0.0
GModuleByMats	16352	0.2	0.0	0.0	0.0
GroupHomomorphismByImagesNC	4463	0.3	0.0	0.0	0.0
IsomorphismFpGroup	581	0.3	0.0	0.0	0.0
EpimorphismQuotientSystem	489	0.3	0.0	0.0	0.0
NaturalHomomorphismBySubspace	973	0.3	0.0	0.0	0.0
Index	167297	0.6	0.0	0.0	0.0
ExponentSum	64426	0.7	0.0	0.0	0.0
GeneratorsOfMagmaWithInverses	1358571	1.1	0.1	0.0	0.0
PreImagesRepresentative	38352	1.2	0.0	0.1	0.0
PQuotient	978	1.3	0.0	0.1	0.0
PullBackH	973	3.3	0.4	0.3	0.0
Image	125028	3.5	0.0	0.2	0.0
SMTX_BasesMaximalSubmodules	399	6.2	0.1	0.5	0.0
FindIntersections	151	6.5	6.4	1.6	1.6
PreImage	1990	9.4	0.6	0.9	0.0
Kernel	973	9.5	9.4	0.9	0.9
IsSubgroup	19808	56.7	0.8	14.7	0.0
AddGroup	1071	57.2	56.9	14.7	14.7
FindPModules	489	78.7	77.6	15.6	15.5
FindPQuotients	152	78.8	78.7	15.6	15.6
LowIndexNormal	1	85.4	85.4	17.2	17.2

Function	Count	AbsT/s	ChildT/s	AbsS/gb	ChildS/gb
IsPowerOf	669	0.0	0.0	0.0	0.0
NextPrimeInt	494	0.0	0.0	0.0	0.0

MustCheckP	494	0.0	0.0	0.0	0.0
LowIndexSubgroupsFpGroup	2	0.0	0.0	0.0	0.0
Core	22	0.0	0.0	0.0	0.0
MinSubgroupSizes	494	0.0	0.0	0.0	0.0
FindTQuotients	1	0.0	0.0	0.0	0.0
Intersection	21354	0.0	0.0	0.0	0.0
GModuleByMats	16352	0.2	0.0	0.0	0.0
GroupHomomorphismByImagesNC	4463	0.3	0.0	0.0	0.0
IsomorphismFpGroup	581	0.3	0.0	0.0	0.0
NaturalHomomorphismBySubspace	973	0.3	0.0	0.0	0.0
EpimorphismQuotientSystem	489	0.4	0.0	0.0	0.0
Index	167297	0.6	0.0	0.0	0.0
ExponentSum	64426	0.7	0.0	0.0	0.0
GeneratorsOfMagmaWithInverses	1358571	1.2	0.1	0.0	0.0
PreImagesRepresentative	38352	1.4	0.0	0.1	0.0
PQuotient	978	1.4	0.0	0.1	0.0
Image	125028	3.3	0.0	0.2	0.0
PullBackH	973	3.3	0.4	0.3	0.0
SMTX_BasesMaximalSubmodules	399	6.3	0.1	0.5	0.0
FindIntersections	151	6.8	6.7	1.6	1.6
PreImage	1990	9.8	0.7	0.9	0.0
Kernel	973	9.9	9.8	0.9	0.9
IsSubgroup	19808	58.6	0.8	14.7	0.0
AddGroup	1071	59.2	58.8	14.7	14.7
FindPModules	489	81.2	79.9	15.6	15.5
FindPQuotients	152	81.2	81.2	15.6	15.6
LowIndexNormal	1	88.1	88.1	17.2	17.2