## ${\bf Example Extended Profile}$

July 6, 2018

 ${\bf Group: Dihedral Group (40)}$ 

Searching up to index : 20

How many normal groups are found : 8

Total Time in ms : 126

Count	AbsT/ms	ChildT/ms	AbsS/kb	ChildS/kb	Function
22	0	0	3280	0	Intersection
25	0	0	3864	0	NextPrimeInt
7	0	0	5120	1072	FindIntersections
0	0	0	0	0	LowIndexSubgroupsFpGroup
92	0	0	93536	0	ExponentSum
10	1	0	219252	48800	PullBackH
1	1	1	2080	1920	FindTQuotients
3	2	0	113662	2256	Core
1833	2	1	59888	0	GeneratorsOfMagmaWithInverses
88	2	0	248434	1712	PreImagesRepresentative
6	3	0	384286	5376	IsSubgroup
44	4	0	394150	0	$\operatorname{GModuleByMats}$
169	4	0	313626	3920	Index
10	5	0	229238	0	NaturalHomomorphismBySubspace
67	6	0	490734	4864	${\bf Group Homomorphism By Images NC}$
414	8	0	717308	2736	Image
10	9	4	1266558	404798	AddGroup
8	12	0	1004109	27612	$SMTX\_BasesMaximal Submodules$
14	18	6	1998379	408154	PreImage
10	24	20	2319561	2123305	Kernel
18	25	1	2567915	72080	IsomorphismFpGroup

25	26	3	6858114	257910	EpimorphismPGroup
8	123	113	16408207	15812613	FindPQuotients
1	126	126	16522125	16521981	LowIndexNormal

## ${\bf Group: Dihedral Group (100)}$

Searching up to index : 50

How many normal groups are found : 8

Total Time in ms:93

Count	AbsT/ms	ChildT/ms	AbsS/kb	ChildS/kb	Function
26	0	0	3120	0	Intersection
3	0	0	86062	2304	Core
51	0	0	8744	0	NextPrimeInt
36	0	0	58160	0	GModuleByMats
7	0	0	7672	1216	FindIntersections
10	0	0	134066	0	NaturalHomomorphismBySubspace
0	0	0	0	0	LowIndexSubgroupsFpGroup
1	0	0	1272	1112	FindTQuotients
2182	1	0	64240	0	GeneratorsOfMagmaWithInverses
194	1	0	310204	4000	Index
101	1	1	96376	0	ExponentSum
6	2	0	357238	4944	IsSubgroup
10	2	0	254183	62008	PullBackH
442	3	0	677614	2736	Image
72	3	0	242342	1616	PreImagesRepresentative
93	6	1	715410	6128	GroupHomomorphismByImagesNC
8	7	0	587285	20116	SMTX_BasesMaximalSubmodules
10	8	3	1601126	377142	AddGroup
14	11	4	2120484	407844	PreImage
10	12	11	2369010	2217874	Kernel
18	12	0	2825908	63896	IsomorphismFpGroup
51	43	3	13641251	507978	EpimorphismPGroup
8	91	87	22845041	22375871	FindPQuotients
1	93	93	22949975	22949831	LowIndexNormal