

Family	Total	Boolector	CVC4	Q3B	Z3
2017-Preiner-keymaera	4035	4022	3998	4009	<b>4031</b>
2017-Preiner-psyco	194	193	190	182	<b>194</b>
2017-Preiner-scholl-smt08	374	312	248	<b>319</b>	272
2017-Preiner-tptp	73	69	<b>73</b>	<b>73</b>	<b>73</b>
2017-Preiner-UltimateAutomizer	153	152	151	<b>153</b>	<b>153</b>
20170501-Heizmann-UltimateAutomizer	131	30	<b>128</b>	124	32
2018-Preiner-cav18	600	553	<b>565</b>	<b>565</b>	553
wintersteiger	191	163	174	<b>185</b>	163
Total	5751	5494	5527	<b>5610</b>	5471

Table 1: For each solver and benchmark family, the table shows the number of benchmarks from the given family solved by the given solver. The column *Total* shows the total number of benchmarks in the given family.

Family	Total	Boolector	CVC4	Q3B	Z3
2017-Preiner-keymaera	108	105	78	104	<b>108</b>
2017-Preiner-psyco	132	131	129	123	<b>132</b>
2017-Preiner-scholl-smt08	257	247	214	<b>249</b>	204
2017-Preiner-tptp	17	16	<b>17</b>	<b>17</b>	<b>17</b>
2017-Preiner-UltimateAutomizer	16	<b>16</b>	14	<b>16</b>	<b>16</b>
20170501-Heizmann-UltimateAutomizer	21	19	19	<b>20</b>	15
wintersteiger	93	77	85	<b>92</b>	71
Total	644	611	556	<b>621</b>	563

Table 2: For each solver and benchmark family, the table shows the number of *satisfiable* benchmarks solved from this benchmark family by the solver.

Family	Total	Boolector	CVC4	Q3B	Z3
2017-Preiner-keymaera	3925	3917	3920	3905	<b>3923</b>
2017-Preiner-psyco	62	<b>62</b>	61	59	<b>62</b>
2017-Preiner-scholl-smt08	76	65	34	<b>70</b>	68
2017-Preiner-tptp	56	53	<b>56</b>	<b>56</b>	<b>56</b>
2017-Preiner-UltimateAutomizer	137	136	<b>137</b>	<b>137</b>	<b>137</b>
20170501-Heizmann-UltimateAutomizer	110	11	<b>109</b>	104	17
2018-Preiner-cav18	590	553	<b>565</b>	<b>565</b>	553
wintersteiger	94	86	89	<b>93</b>	92
Total	5050	4883	4971	<b>4989</b>	4908

Table 3: For each solver and benchmark family, the table shows the number of *unsatisfiable* benchmarks solved from this benchmark family by the solver.

family	Boolector	CVC4	Q3B	Z3
2017-Preiner-keymaera	1.00	0.00	1.00	3.00
2017-Preiner-psyco	0.00	0.00	0.00	1.00
2017-Preiner-scholl-smt08	7.00	2.00	8.00	1.00
20170501-Heizmann-UltimateAutomizer	0.00	3.00	1.00	0.00
2018-Preiner-cav18	0.00	0.00	11.00	0.00
wintersteiger	0.00	1.00	4.00	1.00

Table 4: For each solver and benchmark family, the table shows the number of benchmarks solved only by the given solver.

	Boolector	CVC4	Q3B	Z3	Uniquely solved
Boolector	0	123	69	78	8
CVC4	156	0	60	171	6
Q3B	185	143	0	208	25
Z3	55	115	69	0	6

Table 5: The table shows cross-comparison of solved benchmarks by all pairs of the solvers. Each cell shows the number of benchmarks that were solved by the solver in the corresponding row, but not by the solver by the corresponding column. The column *Uniquely solved* shows the number of benchmarks that were solved only by the given solver.



