Section Sect		Solver	Time (s)						Result					
Section Sect			< .04	< .12	< .37	< 1.1	< 3.3	< 10	sat	unsat	unchk	wrong	tmout	err
Section Sect	Kaluza	dz3	5018	71	48	22	15	10	2608	2576	0	0	268	0
Coved 3744 1323 62 183 6 122 2849 2591 0 0 0 127		z3	4325	582	77	30	38	47	2521	2578	0	0	353	0
Coved 3744 1323 62 183 6 122 2849 2591 0 0 0 127		z3str3	4439	569	241	22	33	6	2728	2577	5	0	127	15
Coved 3744 1323 62 183 6 122 2849 2591 0 0 0 127		z3trau	3998	728	259	104	63	96	2657	2591	0	0	204	0
Mathematical Process		cvc4	3744	1323	62	183	6	122	2849	2591	0	0	12	0
Section Sect		ostrich	0	0	0	1747	2369	65	1665	2516	0	0	0	1271
Second S	Slog													
cvc4 1887 61 24 4 0 0 808 1168 0 0 0 0 dz3 366 282 69 13 2 0 594 138 0 0 21 8 z3 76 103 98 124 51 90 469 73 0 0 274 0 z3str3 626 2 0 1 0 0 567 62 0 0 187 0 cv4 544 132 27 2 30 5 591 149 0 0 73 3 3 ostrich 0 0 448 0 282 13 3 1 0 67 32 0 0 48 0 23 0 0 488 0 0 0 0 0 0 0 0 0 0 0 0 0 </td <td></td>														
cvc4 1887 61 24 4 0 0 808 1168 0 0 0 0 dz3 366 282 69 13 2 0 594 138 0 0 21 8 z3 76 103 98 124 51 90 469 73 0 0 274 0 z3str3 626 2 0 1 0 0 567 62 0 0 187 0 cv4 544 132 27 2 30 5 591 149 0 0 73 3 3 ostrich 0 0 448 0 282 13 3 1 0 67 32 0 0 48 0 23 0 0 488 0 0 0 0 0 0 0 0 0 0 0 0 0 </td <td></td>														
Ostrich O O O 1363 583 21 800 1167 O O O 1 8														
Heat Color														
E		ostrich	0	0	0	1363	583	21	800	1167	0	0	1	8
E	_													
cvc4 544 132 27 2 30 5 591 149 0 0 73 3 dz3 82 13 3 1 0 0 67 32 0 0 48 0 z3 44 30 9 6 3 2 63 31 0 0 53 0 Z3trau 47 50 4 0 0 0 660 17 0 0 70 0 cvc4 96 25 3 3 1 0 66 62 0 0 19 0 dz3 126 176 41 0 0 0 331 0 12 0 0 0 25 23 10 0 0 14 51 65 0 0 0 278 0 0 23 126 176 41														
cvc4 544 132 27 2 30 5 591 149 0 0 73 3 dz3 82 13 3 1 0 0 67 32 0 0 48 0 z3 44 30 9 6 3 2 63 31 0 0 53 0 Z3trau 47 50 4 0 0 0 660 17 0 0 70 0 cvc4 96 25 3 3 1 0 66 62 0 0 19 0 dz3 126 176 41 0 0 0 331 0 12 0 0 0 25 23 10 0 0 14 51 65 0 0 0 278 0 0 23 126 176 41	orr													
Strick O O O 439 377 O 597 219 O O O O O	Z													
E dz3 82 13 3 1 0 0 67 32 0 0 48 0 E z3str3 77 0 0 0 0 0 60 17 0 0 70 0 z3trau 47 50 4 0 0 0 66 62 0 0 19 0 cvc4 96 25 3 3 1 0 66 62 0 0 19 0 dz3 126 176 41 0 0 0 331 0 12 0 0 0 z3 0 0 0 0 14 51 65 0 0 0 0 z3 10 0 2 33 1 0 66 62 0 0 0 0 z3 2 1 0 0														
ESCAPAGE STATE STA		ostrich	0		0	439	3//		597	219	0	0	0	
Second S	Norn													
Cyc4														
Cyc4														
Ostrich O O O O O O O O O														
Section Sect														
Second S		ostrich	0	0	0	90	57	0	67	80	0	0	0	
ostrich 0 28 0 0 23 0 0 28 0 0 23 0 0 28 0 0 23 0 0 0 28 0 0 23 0 0 0 29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SyGuS-qgen													
ostrich 0 28 0 0 23 0 0 28 0 0 23 0 0 28 0 0 23 0 0 0 28 0 0 23 0 0 0 29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				0	0	0	14			0		0		
ostrich 0 28 0 0 23 0 0 28 0 0 23 0 0 28 0 0 23 0 0 0 28 0 0 23 0 0 0 29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
ostrich 0 28 0 0 23 0 0 28 0 0 23 0 0 28 0 0 23 0 0 0 28 0 0 23 0 0 0 29 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0														
dz3														
Second S		ostrich	0	0	0	0	0	0	0	0	0	0	0	343
ostrich 0 0 0 11 34 0 25 20 0 0 0 10 dz3 26 28 27 5 5 5 0 90 1 0 0 9 0 z3 0 0 0 2 5 3 7 3 0 0 90 0 z3 z3str3 0 0 0 2 4 3 6 3 0 0 91 0 z3 z3trau 0 0 0 0 5 4 6 3 0 0 91 0 ostrich 0 0 0 12 69 0 72 9 0 0 0 19 z3 z3 20 4 4 6 2 1 14 23 0 2 46 4 z3 z3 20 4 4 6	RegExLib Intersection	dz3	6	9	14	4	2	0	26	9	0	0	20	0
ostrich 0 0 0 11 34 0 25 20 0 0 0 10 dz3 26 28 27 5 5 5 0 90 1 0 0 9 0 z3 0 0 0 2 5 3 7 3 0 0 90 0 z3 z3str3 0 0 0 2 4 3 6 3 0 0 91 0 z3 z3trau 0 0 0 0 5 4 6 3 0 0 91 0 ostrich 0 0 0 12 69 0 72 9 0 0 0 19 z3 z3 20 4 4 6 2 1 14 23 0 2 46 4 z3 z3 20 4 4 6			1	2	3	12	9	0	4	23	0	0	28	0
ostrich 0 0 0 11 34 0 25 20 0 0 0 10 dz3 26 28 27 5 5 5 0 90 1 0 0 9 0 z3 0 0 0 2 5 3 7 3 0 0 90 0 z3 z3str3 0 0 0 2 4 3 6 3 0 0 91 0 z3 z3trau 0 0 0 0 5 4 6 3 0 0 91 0 ostrich 0 0 0 12 69 0 72 9 0 0 0 19 z3 z3 20 4 4 6 2 1 14 23 0 2 46 4 z3 z3 20 4 4 6			2	1	6	12	6	0	4	23	0	0	28	0
ostrich 0 0 0 11 34 0 25 20 0 0 0 10 dz3 26 28 27 5 5 5 0 90 1 0 0 9 0 z3 0 0 0 2 5 3 7 3 0 0 90 0 z3 z3str3 0 0 0 2 4 3 6 3 0 0 91 0 z3 z3trau 0 0 0 0 5 4 6 3 0 0 91 0 ostrich 0 0 0 12 69 0 72 9 0 0 0 19 z3 z3 20 4 4 6 2 1 14 23 0 2 46 4 z3 z3 20 4 4 6		z3trau		0	4	12	8	0		23	0	0		0
dz3 26 28 27 5 5 0 90 1 0 0 9 0 z3 0 0 0 0 2 5 3 7 3 0 0 0 90 0 z3 z3str3 0 0 0 2 4 3 6 3 0 0 91 0 z3 z3strau 0 0 0 0 5 4 6 3 0 0 91 0 cvc4 17 46 12 2 1 2 80 0 0 0 0 91 0 ostrich 0 0 0 12 69 0 72 9 0 0 0 19 z3 23 20 4 4 6 2 1 14 23 0 2 46 4 cvc4 28 6 3 2 7 5 28 23 0 0 25 13			2		4	1	1	3	20	0	0	0	35	0
English z3 0 0 0 2 5 3 7 3 0 0 90 0 English z3 z3tr3 0 0 0 0 2 4 3 6 3 0 0 91 0 English z3trau 0 0 0 0 5 4 6 3 0 0 91 0 expression cvc4 17 46 12 2 1 2 80 0 0 0 20 0 ostrich 0 0 0 12 69 0 72 9 0 0 0 19 expression dz3 35 14 7 9 7 6 42 36 0 0 10 1 expression z3 20 4 4 6 2 1 14 23 0 2		ostrich	0	0	0	11	34	0	25	20	0	0	0	10
The state of	RegExLib Subset													
ostrich 0 0 0 12 69 0 72 9 0 0 0 19 In the state of th							5					0		
ostrich 0 0 0 12 69 0 72 9 0 0 0 19 In the state of th														
ostrich 0 0 0 12 69 0 72 9 0 0 0 19 In the state of th														
dz3 35 14 7 9 7 6 42 36 0 0 10 1 z3 20 4 4 6 2 1 14 23 0 2 46 4 cvc4 28 6 3 2 7 5 28 23 0 0 25 13														
E z3 20 4 4 6 2 1 14 23 0 2 46 4 E cvc4 28 6 3 2 7 5 28 23 0 0 25 13		ostrich	0	0	0	12	69	0	72	9	0	0	0	19
Engine z3 20 4 4 6 2 1 14 23 0 2 46 4 Engine cvc4 28 6 3 2 7 5 28 23 0 0 25 13 Engine cvc4 28 6 3 2 7 5 28 23 0 0 25 13 Engine cvc4 28 24 0 40 36 0 5 6 2	landwr.			14	7	9	7	6	42		0	0	10	1
E cvc4 28 6 3 2 7 5 28 23 0 0 25 13 ostrich 0 0 0 52 24 0 40 36 0 5 6 2				4		6					0	2		4
ostrich 0 0 0 52 24 0 40 36 0 5 6 2											0			
	<u> </u>	ostrich	0	0	0	52	24	0	40	36	0	5	6	2

Figure 6. Full results of the experiments, divided by double lines into non-Boolean benchmarks (regular expression constraints are on separate variables, top), Boolean benchmarks (multiple regular expression constraints on the same variable, middle), and additional handcrafted Boolean examples (bottom).