Table 1: Reported results for problems 5.1-5.2

					IDNM			ΑĮξ	Algorithm	2.1		_	DLPA			7	ATTCGP	
			LI#	FE	PT	Norm	#IT	FE	PT	Norm	TI#	FE	PT	Norm	#IT	FE	PT	Norm
5.1	1000	x_0^1	2	^	0.0054	0	31	33	0.6728	9.34E-09	8	19	0.5706	0	13	27	0.3773	6.77E-09
	1000	$\chi_0^{\chi_2}$	7	∞	0.0000	0	39	42	0.1121	8.22E-09	П	rV	0.0339	0	15	42	0.0424	8.23E-09
	1000	£20	7	11	0.0062	0	40	4	0.0471	9.39E-09	* * *	* * *	* * *	* * *	17	36	0.0295	2.53E-09
	1000	$^{\chi}_{0}$	rU	16	0.0138	0	37	40	0.0477	9.70E-09	rv	25	0.0228	0	15	32	0.0157	4.88E-09
	1000	χ ₂	1	4	0.0106	0	38	41	0.2602	5.32E-09	П	4	0.0064	0	14	36	0.0170	7.94E-09
	1000	300	гO	16	0.0125	0	39	41	0.0503	8.30E-09	гO	25	0.0210	0	15	32	0.0192	4.89E-09
	10000	$\chi_0^{\chi_1^{\circ}}$	7	^	0.0303	0	31	33	0.2396	9.35E-09	8	19	0.0387	0	13	27	0.1052	6.77E-09
	10000	$\chi_0^{\chi_2}$	7	∞	0.0310	0	42	45	0.2915	7.08E-09	П	rV	0.0183	0	16	4	0.1166	5.44E-09
	10000	£20	7	11	0.0274	0	43	47	0.2592	8.07E-09	* * *	* * *	* * *	* * *	17	36	0.1184	7.32E-09
	10000	$^{\chi}_{0}$	rV	16	0.0344	0	40	43	0.2699	8.44E-09	2	16	0.0443	0	16	34	0.1359	3.02E-09
	10000	χ ₂	1	4	0.0204	0	40	43	0.2365	5.25E-09	П	4	0.0219	0	15	41	0.1240	5.11E-09
	10000	300	гO	16	0.0553	0	41	44	0.3161	6.29E-09	2	16	0.0413	0	16	34	0.1052	3.02E-09
	50000	$\chi_0^{\chi_1^{\circ}}$	7	^	0.0725	0	31	33	1.0419	9.35E-09	8	19	0.1444	0	13	27	0.3339	6.77E-09
	50000	$\chi_0^{\chi_2}$	7	∞	0.0922	0	44	47	1.2422	6.41E-09	⊣	D	0.0716	0	17	46	0.4471	2.44E-09
	50000	.e.x	7	11	0.0930	0	45	49	1.2257	7.37E-09	* * *	* * *	* * *	* * *	18	41	0.4497	3.25E-09
	50000	χ_{0}^{χ}	rC	16	0.1756	0	42	45	0.8705	7.68E-09	2	16	0.1671	0	16	34	0.3620	6.74E-09
	50000	222	П	4	0.0416	0	42	4	0.8588	8.02E-09	1	4	0.0499	0	16	43	0.4153	2.29E-09
	50000	32°	rV	16	0.1637	0	42	45	0.9282	9.20E-09	7	16	0.1541	0	16	34	0.4196	6.71E-09
5.2	1000	x_0^1	rC	9	0.0132	2.22E-16	28	30	0.0406	5.09E-09	6	22	0.0885	0	∞	20	0.0183	5.16E-09
	1000	35° 20°	7	33	0.0061	0	32	34	0.0420	6.32E-09	* * *	* * *	* * *	* * *	∞	20	0.0133	1.31E-11
	1000	£20	33	4	0.0085	0	33	32	0.0469	5.62E-09	* * *	* * *	* * *	* * *	6	21	0.0159	1.30E-11
	1000	$^{\chi}_{0}$	9	^	0.0131	1.47E-24	31	33	0.0439	6.38E-09	^	41	0.0230	0	10	33	0.0212	2.36E-11
	1000	252	7	8	0.0058	0	31	33	0.0332	5.98E-09	8	33	0.0227	0	∞	31	0.0250	1.79E-10
	1000	χ ₀	9	^	0.0187	8.01E-24	31	33	0.0463	6.35E-09	^	41	0.0210	0	10	33	0.0225	2.41E-11
	10000	x_0^1	9	^	0.0547	1.72E-12	28	30	0.3523	5.08E-09	_	30	0.0883	0	6	21	0.0745	7.59E-09
	10000	35° 20°	7	33	0.0261	0	34	36	0.2747	5.06E-09	* * *	* * *	* * *	* * *	^	19	0.0652	1.09E-09
	10000	£50	3	4	0.0255	0	34	36	0.2821	8.88E-09	* * *	* * *	* * *	* * *	∞	20	0.0703	1.07E-09
	10000	$^{\chi}_{0}$	9	^	0.0427	1.36E-09	33	35	0.2905	5.11E-09	* * *	* * *	* * *	* * *	11	34	0.1060	3.37E-11
	10000	252	7	3	0.0206	0	32	34	0.2362	9.50E-09	* * *	* * *	* * *	* * *	^	19	0.0824	4.07E-12
	10000	×00	9	^	0.0507	1.54E-09	33	35	0.2281	5.11E-09	* * *	* * *	* * *	* * *	12	46	0.1337	3.20E-11
	50000	χ_0^{1}	6	14	0.2506	3.35E-09	28	30	0.6760	5.08E-09	7	30	0.3055	0	33	61	0.8237	6.33E-09
	50000	$\chi_0^{\chi_2}$	7	8	0.0615	0	35	37	0.8587	5.69E-09	* * *	* * *	* * *	* * *	21	48	0.5723	8.67E-09
	50000	£20	3	4	0.0826	0	35	37	0.9470	6.98E-09	* * *	* * *	* * *	* * *	22	49	0.5874	8.44E-09
	50000	χ_0^{χ}	6	16	0.2631	6.07E-09	34	36	0.8528	5.76E-09	* * *	* * *	* * *	* * *	34	73	0.8440	8.34E-09
	50000	$x_0^{\chi_5}$	7	8	0.0592	0	34	36	0.8400	5.39E-09	* * *	* * *	* * *	* * *	28	63	0.7863	6.72E-09
	50000	×00	10	16	0.2734	6.05E-10	34	36	0.89999	5.75E-09	* * *	* * *	* * *	* * *	34	73	0.8851	8.30E-09

Table 2: Reported results for problems 5.3-5.4

Norm #IT FE PT 0 27 30 0.1644 0 0 38.60E-09 35 38 0.0426 1.03E-09 31 34 0.0369 1 0 2.72E-09 31 34 0.0274 0 0 2.72E-09 32 35 0.1490 0 0 2.72E-09 36 39 0.2069 0 3.24E-09 32 35 0.1863 0 0 2.24E-09 32 35 0.2020 0 0 3.24E-09 32 35 0.2038 0 0 2.25E-09 32 35 0.2039 0 0 3.3 36 0.7678 0 0 3.3 36 0.7678 0 0 3.3 36 0.6013 0 0 3.4 10.0399 0 0 2.25E-09 40 44 0.0778 0 0 2.25E-09 40 44 0.0399 0 0 2.25E-09 40 44 0.0399 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Ξ	IDKM			Alg	Algorithm 2.1	2.1		1	DLPA			⋖.	ATTCGP	
1000 χ_0^1 2 4 0.0182 0 27 30 0.1644 1000 χ_0^2 1 3 0.0079 0 32 35 0.0432 1000 χ_0^2 1 3 0.0079 0 32 35 0.0432 1000 χ_0^2 1 3 0.0176 8.60E-09 35 38 0.0426 10000 χ_0^2 1 3 0.0135 0 31 34 0.0369 10000 χ_0^2 8 16 0.0205 0 2 7 30 0.0420 10000 χ_0^2 8 16 0.0205 0 2 3 0.0269 31 34 0.0269 10000 χ_0^2 8 16 0.0265 3.24E-09 35 36 0.0269 10000 χ_0^2 1 3 0.0186 0.0269 32 36 0.0269 500000	_			Vorm	#IT	FE	PT	Norm	#IT	FE	PT	Norm	#IT	FE	PT	Norm
1000 x ₀ /2 1 3 0.0079 0 32 35 0.0432 1000 x ₀ /2 7 18 0.0176 8.60E-09 35 38 0.0426 1000 x ₀ /2 1 3 0.0054 0 31 34 0.0366 10000 x ₀ /2 1 3 0.0054 0 31 34 0.0366 10000 x ₀ /2 1 3 0.0055 0 2 3 0.0456 10000 x ₀ /2 1 3 0.0265 0 2 3 0.0456 10000 x ₀ /2 1 3 0.0135 0 3 3 0.0456 10000 x ₀ /2 1 3 0.0135 0 3 3 0.0456 50000 x ₀ /2 1 3 0.0135 0 3 3 0.0266 50000 x ₀ /2 1 3 0.0459 3 3	2 4		0182	0	27	30	0.1644	6.52E-09	1	8	0.0830	0	37	72	0.0575	7.13E-09
1000 χ_0^2 7 18 0.0176 8.60E-09 35 38 0.0426 1000 χ_0^4 8 16 0.0200 1.03E-09 31 34 0.0369 1000 χ_0^4 8 16 0.0200 1.03E-09 31 34 0.0369 10000 χ_0^4 8 16 0.0135 0 27 30 0.0369 10000 χ_0^4 8 16 0.0633 3.26E-09 32 36 0.1490 10000 χ_0^4 8 18 0.0674 272E-09 32 39 0.0204 10000 χ_0^4 8 18 0.0674 272E-09 32 39 0.0208 10000 χ_0^4 8 16 0.0669 3.24E-09 32 36 0.1489 50000 χ_0^4 8 16 0.0669 3.24E-09 33 36 0.0223 50000 χ_0^4 8	1 3		6200	0	32		0.0432	5.87E-09	1	ε	0.0097	0	43	87	0.0635	7.54E-09
1000 χ_0^4 8 16 0.0200 1.03E-09 31 34 0.0369 1000 χ_0^5 1 3 0.0054 0 31 34 0.0369 1000 χ_0^6 1 3 0.0135 0 27 30 0.1490 10000 χ_0^4 1 3 0.0135 0 27 30 0.1490 10000 χ_0^4 8 16 0.0186 0 27 30 0.1490 10000 χ_0^4 8 16 0.0186 0 32 35 0.1283 10000 χ_0^4 8 16 0.0665 3.24E-09 32 36 0.2238 50000 χ_0^4 8 16 0.0391 0 32 36 0.1289 50000 χ_0^4 8 16 0.0391 0 33 36 0.238 50000 χ_0^4 8 16 0.0391	7 18			50E-09	35		0.0426	6.17E-09	1	4	0.0056	0	44	68	0.0440	6.59E-09
1000 χ_0^2 1 3 0.0054 0 31 34 0.0353 1000 χ_0^2 8 16 0.0181 1.08E-09 31 34 0.0274 10000 χ_0^2 1 3 0.0135 0 27 30 0.1490 10000 χ_0^2 1 3 0.0135 0 33 36 0.1737 10000 χ_0^2 8 16 0.0693 3.26E-09 35 39 0.2069 10000 χ_0^2 8 16 0.0693 3.26E-09 32 35 0.1280 50000 χ_0^2 8 16 0.0665 3.24E-09 32 35 0.2020 50000 χ_0^2 8 16 0.0732 0 35 38 0.7578 50000 χ_0^2 8 16 0.0132 7.28E-09 33 0.6013 50000 χ_0^2 8 16 0.0202 </td <td>8 16</td> <td>5 0.0</td> <td></td> <td>J3E-09</td> <td>31</td> <td>34</td> <td>0.0369</td> <td>5.46E-09</td> <td>1</td> <td>8</td> <td>0.0065</td> <td>0</td> <td>42</td> <td>82</td> <td>0.0621</td> <td>7.95E-09</td>	8 16	5 0.0		J3E-09	31	34	0.0369	5.46E-09	1	8	0.0065	0	42	82	0.0621	7.95E-09
1000 χ_0^2 8 16 0.0181 1.08E-09 31 34 0.0274 10000 χ_0^2 1 4 0.0205 0 27 30 0.1490 10000 χ_0^2 1 3 0.0135 0 27 30 0.1490 10000 χ_0^2 1 3 0.0135 0 3 36 0.1490 10000 χ_0^2 1 3 0.0135 0 3 36 0.1490 0 10000 χ_0^2 1 3 0.0186 0 3 36 0.0209 10000 χ_0^2 1 3 0.0186 0 27 30 0.0189 0<	1 3		0054	0	31		0.0353	5.10E-09	1	ε	0.0101	0	42	82	0.0689	7.81E-09
10000 χ_0^1 2 4 0.0205 0 27 30 0.1490 10000 χ_0^2 1 3 0.0135 0 33 36 0.1490 10000 χ_0^2 8 18 0.0674 2.72E-09 36 39 0.2069 10000 χ_0^2 1 3 0.0186 0 32 35 0.2069 10000 χ_0^2 1 3 0.0186 0 32 35 0.2069 50000 χ_0^2 2 4 0.0743 0 32 35 0.2089 50000 χ_0^2 1 3 0.0391 0 32 36 0.223 50000 χ_0^2 8 16 0.0486 7.28E-09 38 41 0.778 50000 χ_0^2 8 16 0.023 2.28E-09 33 36 0.693 1000 χ_0^2 1 3 0.0372 <td></td> <td></td> <td></td> <td>38E-09</td> <td>31</td> <td></td> <td>0.0274</td> <td>5.34E-09</td> <td>1</td> <td>8</td> <td>0.0070</td> <td>0</td> <td>42</td> <td>82</td> <td>0.0796</td> <td>7.94E-09</td>				38E-09	31		0.0274	5.34E-09	1	8	0.0070	0	42	82	0.0796	7.94E-09
10000 χ_0^2 1 3 0.0135 0 33 36 0.1737 10000 χ_0^2 8 18 0.0674 $2.72E-09$ 36 39 0.2069 10000 χ_0^4 8 16 0.0665 $3.2E-09$ 32 35 0.1069 10000 χ_0^4 8 16 0.0665 $3.24E-09$ 32 35 0.1293 50000 χ_0^4 2 4 0.0743 0 27 30 0.0613 50000 χ_0^4 8 16 0.0493 $0.08E-09$ 38 41 0.7973 50000 χ_0^4 8 16 0.1933 $7.28E-09$ 33 0.0139 50000 χ_0^4 8 16 0.1933 $7.28E-09$ 33 3.6 0.7482 50000 χ_0^4 8 16 0.1933 $7.28E-09$ 33 9.0493 1000 χ			0205	0	27		0.1490	6.53E-09	1	8	0.0182	0	37	72	0.2952	7.13E-09
10000 x_0^3 8 18 0.0674 2.72E-09 36 39 0.2069 10000 x_0^4 8 16 0.0693 3.26E-09 32 35 0.1863 10000 x_0^4 8 16 0.0665 3.24E-09 32 35 0.1238 10000 x_0^4 8 16 0.0665 3.24E-09 32 35 0.0238 50000 x_0^4 8 16 0.0371 0 35 38 0.7678 3 0.0678 3 0.0678 3 0.0678 3 0.0678 3 0.0678 3 0.0678 3 0.0678 3 0.0678 3 0.0678 3 0.0678 3 0.0678 3 0.0678 3 0.0742 3 0.0679 3 3 0.0678 3 0.0674 3 0.0674 3 0.0674 3 0.0674 3 0.0674 3 0.0674 3 0.0674<	1 3		0135	0	33		0.1737	9.31E-09	1	ε	0.0136	0	45	91	0.2608	8.58E-09
10000 x_0^4 8 16 0.0693 $3.26E-09$ 32 35 0.1863 9 10000 x_0^5 1 3 0.0186 0 32 35 0.0238 10000 x_0^5 1 3 0.0186 0 32 35 0.0238 50000 x_0^5 1 3 0.0391 0 37 38 0.5028 50000 x_0^5 1 3 0.0391 0 35 38 0.5029 50000 x_0^5 1 3 0.0391 0 35 38 0.5029 50000 x_0^5 1 3 0.0392 39 0.5742 39 0.5742 39 0.5742 39 0.5742 39 0.5742 39 0.5742 39 0.5742 39 0.5742 39 0.5742 39 0.5742 39 0.5742 39	8 18			72E-09	36	39	0.2069	9.82E-09	1	4	0.0151	0	46	93	0.2702	7.50E-09
10000 x_0^5 1 3 0.0186 0 32 35 0.2238 8 10000 x_0^4 8 16 0.0665 3.24E-09 32 35 0.2020 8 50000 x_0^4 8 16 0.0655 3.24E-09 32 35 0.2020 8 50000 x_0^4 8 16 0.0391 0 35 38 0.7678 3 0.6013 6 50000 x_0^4 8 16 0.1933 7.28E-09 38 41 0.7978 3 0.6013 6 0.6013 6 0.7482 3 0.6013 0 0.6013 0 0.6013 0	8 16			56E-09	32		0.1863	8.66E-09	1	8	0.0213	0	44	68	0.3320	9.06E-09
10000 x_0^6 8 16 0.0665 3.24E-09 32 35 0.2020 8 50000 x_0^4 2 4 0.0743 0 27 30 0.6013 6 50000 x_0^4 8 16 0.0391 0 35 38 0.7678 3 0.6013 6 50000 x_0^4 8 16 0.1033 7.28E-09 33 36 0.6013 6 0.7482 9 0.6013 6 0.7482 9	1 3		0186	0	32		0.2238	8.07E-09	1	ε	0.0175	0	44	68	0.2652	8.89E-09
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	8 16			24E-09	32	35	0.2020	8.68E-09	1	8	0.0134	0	44	68	0.2524	9.12E-09
50000 x_0^2 1 3 0.0391 0 35 38 0.7678 35 50000 x_0^4 8 16 0.1933 $7.28E-09$ 38 41 0.7973 50000 x_0^4 8 16 0.1933 $7.28E-09$ 33 36 0.7482 50000 x_0^6 8 16 0.1332 $0.035-09$ 33 36 0.7482 1000 x_0^6 8 16 0.2086 $7.33E-09$ 33 36 0.6742 1000 x_0^6 8 16 0.0122 $0.99E-09$ 40 44 0.0778 1000 x_0^6 8 32 0.0190 $4.25E-09$ 41 44 0.0399 1000 x_0^6 7 27 0.0150 $0.12E-09$ 41 44 0.0399 1000 x_0^6 7 27 0.0150 $0.12E-10$ 41 45 0.0527 </td <td>2 4</td> <td></td> <td>0743</td> <td>0</td> <td>27</td> <td>30</td> <td>0.6013</td> <td>6.53E-09</td> <td>1</td> <td>8</td> <td>0.0507</td> <td>0</td> <td>37</td> <td>72</td> <td>0.8816</td> <td>7.13E-09</td>	2 4		0743	0	27	30	0.6013	6.53E-09	1	8	0.0507	0	37	72	0.8816	7.13E-09
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 3		0391	0	35		0.7678	5.25E-09	1	33	0.0376	0	47	92	1.0146	6.91E-09
$\begin{array}{cccccccccccccccccccccccccccccccccccc$)8E-09	38		0.7973	5.57E-09	1	4	0.0571	0	48	26	0.9998	6.04E-09
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				58E-09	33	36	0.7482	6.69E-09	1	8	0.0453	0	46	93	1.0365	7.29E-09
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			0372	0	33	36	0.6742	9.03E-09	1	3	0.0480	0	46	93	1.0061	7.16E-09
1000 x_0^1 5 20 0.0122 $7.99E-09$ 40 44 0.0778 7 1000 x_0^2 8 32 0.0190 $4.25E-09$ 41 44 0.0399 8 1000 x_0^4 7 27 0.0151 $5.60E-10$ 41 45 0.0554 6 1000 x_0^4 7 27 0.0151 $5.60E-10$ 41 45 0.0554 6 1000 x_0^6 7 27 0.0157 $6.01E-10$ 41 45 0.0557 6 10000 x_0^6 7 27 0.0157 $6.01E-10$ 41 45 0.0557 6 10000 x_0^6 7 27 0.0157 $6.01E-10$ 41 45 0.2399 7 10000 x_0^6 7 27 0.0697 $1.76E-09$ 43 47 0.2399 10000 x_0^6 7 2				33E-09	33	36	0.8039	9.71E-09	1	8	0.0486	0	46	93	1.0370	7.28E-09
x_0^2 8 32 0.0190 4.25E-09 41 44 0.0399 8 x_0^3 16 54 0.0262 7.60E-09 51 57 0.0575 6 x_0^4 7 27 0.0151 5.60E-10 41 45 0.0554 6 x_0^4 7 27 0.0151 5.60E-10 41 45 0.0557 6 x_0^4 7 27 0.0157 6.01E-10 41 45 0.0537 6 x_0^4 6 24 0.0613 6.16E-11 41 45 0.2377 9 x_0^4 7 27 0.059 7.91E-11 43 46 0.2737 9 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 7 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 7 x_0^4 7 27 0.0644 1.78E-09 43 47 0.2399 7 x_0^4 6 24 0.0253 1.44E-10 42 46 0.8625 x_0^4 7 27 0.0644 1.77E-10 45 48 0.8751 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 0.2312 7 0.2500 40 0.9123 6 x_0^4 7 0.2500 6 0.9123 6 x_0^4 7 0.2500 6 0.9123 6 x_0^4 9 0.9123 6 $x_0^$				60-366	40		0.0778	7.40E-09	* * *	* * *	* * *	* * *	37	112	0.0574	8.05E-09
x_0^3 16 54 0.0262 7.60E-09 51 57 0.0575 x_0^4 7 27 0.0151 5.60E-10 41 45 0.0554 x_0^4 7 27 0.0151 5.60E-10 41 45 0.0554 x_0^4 7 27 0.0157 6.01E-10 41 45 0.0557 x_0^4 6 24 0.0613 6.16E-11 41 45 0.237 x_0^4 7 27 0.0597 7.91E-11 43 46 0.2737 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 x_0^4 6 24 0.0650 1.14E-10 42 46 0.2701 6 x_0^4 7 27 0.0644 1.78E-09 43 47 0.2399 x_0^4 7 27 0.0644 1.78E-09 43 47 0.2399 x_0^4 7 27 0.0644 1.78E-09 43 47 0.2399 x_0^4 7 27 0.0644 1.78E-09 43 47 0.2312 x_0^4 7 27 0.2309 3.95E-09 45 48 0.9123 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123				25E-09	41		0.0399	8.11E-09	* * *	* * *	* * *	* * *	38	111	0.0475	9.70E-09
x_0^4 7 27 0.0151 5.60E-10 41 45 0.0554 x_0^5 5 24 0.0149 6.12E-09 39 43 0.0397 x_0^5 7 27 0.0157 6.01E-11 41 45 0.0537 x_0^5 9 32 0.1599 7.91E-11 41 45 0.0537 x_0^5 9 32 0.1599 7.91E-11 43 46 0.2737 x_0^5 16 58 0.1555 9.04E-09 53 59 0.3323 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 x_0^5 6 24 0.0650 1.14E-10 42 46 0.2701 x_0^5 7 27 0.0644 1.78E-09 43 47 0.2312 x_0^5 7 27 0.0644 1.78E-09 43 60 0.3701 x_0^5 8 32 0.3442 1.77E-10 45 48 0.8751 x_0^5 7 27 0.2309 3.95E-09 45 49 0.9123 x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285 x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285				50E-09	21		0.0575	6.87E-09	* * *	* * *	* * *	* * *	65	168	0.0982	5.39E-09
x_0^5 5 24 0.0149 6.12E-09 39 43 0.0397 8 x_0^4 7 27 0.0157 6.01E-10 41 45 0.0537 6 x_0^4 6 24 0.0613 6.16E-11 41 45 0.0537 6 x_0^4 7 27 0.059 7.91E-11 43 46 0.2737 8 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 7 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 7 x_0^4 7 27 0.0644 1.78E-09 43 47 0.2312 7 x_0^4 7 27 0.0644 1.78E-09 43 47 0.2312 7 x_0^4 8 0.3223 1.44E-10 42 46 0.8625 7 x_0^4 7 27 0.3442 1.77E-10 45 48 0.8751 7 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6				50E-10	41		0.0554	6.73E-09	* * *	* * *	* * *	* * *	36	109	0.0597	6.96E-09
x_0^6 7 27 0.0157 6.01E-10 41 45 0.0537 x_0^4 6 24 0.0613 6.16E-11 41 45 0.2404 8 x_0^2 9 32 0.1599 7.91E-11 43 46 0.2737 9 x_0^3 16 58 0.1555 9.04E-09 53 59 0.3323 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 x_0^4 6 24 0.0650 1.14E-10 42 46 0.2701 6 x_0^4 7 27 0.0644 1.78E-09 43 47 0.2312 x_0^4 6 24 0.2223 1.44E-10 42 46 0.8625 x_0^4 6 24 0.2223 1.44E-10 55 61 1.1551 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 27 0.250 2.01E 00 45 49 0.8285 9				12E-09	36		0.0397	9.77E-09	* * *	* * *	* * *	* * *	36	109	0.0632	6.18E-09
x_0^1 6 24 0.0613 6.16E-11 41 45 0.2404 8 x_0^2 9 32 0.1599 7.91E-11 43 46 0.2737 5 x_0^3 16 58 0.1555 9.04E-09 53 59 0.3323 8 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 7 x_0^5 6 24 0.0650 1.14E-10 42 46 0.2701 6 x_0^4 7 27 0.0644 1.78E-09 43 47 0.2312 7 x_0^4 6 24 0.2223 1.44E-10 42 46 0.8625 7 x_0^2 9 32 0.3442 1.77E-10 45 48 0.8751 7 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 27 0.2309 3.95E-10 43 47 0.8285 9 x_0^4 7 27 0.2309 3.95E-10 43 47 0.8285 9)1E-10	41		0.0537	6.66E-09	* * *	* * *	* * *	* * *	36	109	0.0614	6.88E-09
x_0^2 9 32 0.1599 7.91E-11 43 46 0.2737 5 x_0^3 16 58 0.1555 9.04E-09 53 59 0.3323 8 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 7 x_0^5 6 24 0.0650 1.14E-10 42 46 0.2701 6 x_0^4 6 24 0.2223 1.44E-10 42 46 0.8625 7 x_0^4 7 27 0.0544 1.77E-10 45 48 0.8751 7 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 7 27 0.2309 3.95E-10 43 47 0.8285 9			9	16E-11	41	45	0.2404	8.25E-09	* * *	* * *	* * *	* * *	39	118	0.2949	7.44E-09
x_0^3 16 58 0.1555 9.04E-09 53 59 0.3323 8 x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 7 x_0^5 6 24 0.0650 1.14E-10 42 46 0.2701 6 x_0^5 7 27 0.0644 1.78E-09 43 47 0.2312 7 x_0^1 6 24 0.2223 1.44E-10 42 46 0.8625 7 x_0^2 9 32 0.3442 1.77E-10 45 48 0.8751 7 x_0^3 17 58 0.5558 1.19E-10 55 61 1.1551 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285 9			Γ.	91E-11	43	46	0.2737	9.52E-09	* * *	* * *	* * *	* * *	40	117	0.3090	8.88E-09
x_0^4 7 27 0.0697 1.76E-09 43 47 0.2399 7 x_0^5 6 24 0.0650 1.14E-10 42 46 0.2701 6 x_0^6 7 27 0.0644 1.78E-09 43 47 0.2312 7 x_0^1 6 24 0.2223 1.44E-10 42 46 0.8625 7 x_0^2 9 32 0.3442 1.77E-10 45 48 0.8751 7 x_0^3 17 58 0.5558 1.19E-10 55 61 1.1551 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285 9 x_0^6 7 27 0.230 2.01E 00 45 49 0.9123 6 x_0^6 7 27 0.230 2.01E 00 45 49 0.9123 6 x_0^6 7 27 0.230 2.01E 00 45 49 0.9123 6 x_0^6 7 27 0.210 2.01E 00 45 49 0.9123 6 x_0^6 7 2 2 0.213 0.01E 00 45 49 0.0123 6 x_0^6 7 2 2 0.213 0.01E 00 45 49 0.0123 6 x_0^6 7 2 2 0.213 0.01E 00 45 49 0.0123 6 x_0^6 7 2 2 0.213 0.01E 00 45 40 0.8285 9 x_0^6 7 2 2 0.213 0.01E 00 45 40 0.8285 9 x_0^6			6	74E-09	23		0.3323	8.07E-09	* * *	* * *	* * *	* * *	99	171	0.4341	9.18E-09
x_0^5 6 24 0.0650 1.14E-10 42 46 0.2701 6 x_0^6 7 27 0.0644 1.78E-09 43 47 0.2312 7 x_0^1 6 24 0.2223 1.44E-10 42 46 0.8625 7 x_0^2 9 32 0.3442 1.77E-10 45 48 0.8751 7 x_0^3 17 58 0.5558 1.19E-10 55 61 1.1551 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285 9			Ļ.	29E-06	43		0.2399	7.89E-09	* * *	* * *	* * *	* * *	38	115	0.3195	6.37E-09
x_0^6 7 27 0.0644 1.78E-09 43 47 0.2312 7 x_0^1 6 24 0.2223 1.44E-10 42 46 0.8625 7 x_0^2 9 32 0.3442 1.77E-10 45 48 0.8751 7 x_0^3 17 58 0.5558 1.19E-10 55 61 1.1551 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^4 6 24 0.2133 2.55E-10 43 47 0.8285 9 x_0^4 7 27 0.2510 2.04E-00 45 49 0.8285 9				14E-10	42		0.2701	6.99E-09	* * *	* * *	* * *	* * *	38	115	0.2691	5.66E-09
x_0^1 6 24 0.2223 1.44E-10 42 46 0.8625 7 x_0^2 9 32 0.3442 1.77E-10 45 48 0.8751 7 x_0^3 17 58 0.5558 1.19E-10 55 61 1.1551 6 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 6 x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285 9 x_0^5 7 7 0.2510 2.01E-00 45 40 0.8285			ij	28E-09	43		0.2312	7.88E-09	* * *	* * *	* * *	* * *	38	115	0.3019	6.36E-09
x_0^2 9 32 0.3442 1.77E-10 45 48 0.8751 x_0^3 17 58 0.5558 1.19E-10 55 61 1.1551 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285 x_0^5 7 27 0.2510 2.01E-00 45 40 0.8471				44E-10	42	46	0.8625	7.54E-09	* * *	* * *	* * *	* * *	40	121	1.1081	8.97E-09
x_0^3 17 58 0.5558 1.19E-10 55 61 1.1551 x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285 x_0^6 7 27 0.2510 2.01E-00 45 40 0.8285			,	77E-10	45	48	0.8751	7.90E-09	* * *	* * *	* * *	* * *	42	123	1.1029	5.75E-09
x_0^4 7 27 0.2309 3.95E-09 45 49 0.9123 x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285 x_0^6 7 27 0.2510 2.01E-00 45 40 0.0471				19E-10	22	61	1.1551	6.70E-09	* * *	* * *	* * *	* * *	89	177	1.9815	5.94E-09
x_0^5 6 24 0.2133 2.55E-10 43 47 0.8285 x_0^5 7 27 0.2510 2.01E-00 45 40 0.0471		_	ω.	95E-09	45	49	0.9123	6.55E-09	* * *	* * *	* * *	* * *	39	118	1.0850	7.66E-09
2,6 7 37 03510 201E 00 4E 40 08471			<u>ر</u>	55E-10	43	47	0.8285	9.53E-09	* * *	* * *	* * *	* * *	36	118	1.0433	6.81E-09
x_0^2 / 2/ 0.2310 3.91E-09 43 49 0.84/1			0.2510 3.9	91E-09	45	49	0.8471	6.56E-09	* * *	* * *	* * *	* * *	36	118	1.1043	7.65E-09

Table 3: Reported results for problems 5.5-5.6

	INVAIS	1 br			IDKM			Alg	Algorithm 2	2.1			DLPA			+	ALICGE	
			#II	FE	PT	Norm	#IT	FE	PT	Norm	#IT	FE	PT	Norm	#IT	FE	PT	Norm
5.5	1000	x_0^1	7	17	0.0189	5.56E-09	33	36	0.1905	5.98E-09	* * *	* * *	* * *	* * *	45	91	0.0997	8.89E-09
	1000	x_0^2	^	15	0.0130	9.18E-09	32	35	0.0436	7.90E-09	35	164	0.0998	4.07E-09	44	68	0.1046	9.79E-09
	1000	$x_0^{\chi_3}$	^	15	0.0188	6.37E-09	32	35	0.0442	5.44E-09	39	170	0.1063	8.13E-09	44	68	0.0732	6.74E-09
	1000	χ_0^4	^	17	0.0190	4.59E-09	32	35	0.0626	9.87E-09	* * *	* * *	* * *	* * *	45	91	0.0868	7.34E-09
	1000	$\chi_0^{\chi_2}$	^	17	0.0189	4.58E-09	32	35	0.0652	9.85E-09	* * *	* * *	* * *	* * *	45	91	0.0902	7.32E-09
	1000	x ₀	^	17	0.0211	4.60E-09	32	35	0.0679	9.82E-09	* * *	* * *	* * *	* * *	45	91	0.0678	7.29E-09
	10000	$x_0^{\tilde{\chi}_1^{0}}$	%	17	0.0845	1.78E-09	34	37	0.2860	9.49E-09	* * *	* * *	* * *	* * *	48	26	0.4249	6.10E-09
	10000	$\chi_0^{\chi_2}$	∞	17	0.0768	1.17E-09	34	37	0.3272	6.25E-09	* * *	* * *	* * *	* * *	47	95	0.4157	6.70E-09
	10000	X	^	17	0.1004	8.07E-09	33	36	0.2939	8.60E-09	* * *	* * *	* * *	* * *	46	93	0.4556	7.68E-09
	10000	χ_{0}^{χ}	%	17	0.1100	1.47E-09	34	37	0.3789	7.81E-09	* * *	* * *	* * *	* * *	47	95	0.4403	8.37E-09
	10000		∞	17	0.0857	1.46E-09	34	37	0.3043	7.80E-09	* * *	* * *	* * *	* * *	47	95	0.4471	8.35E-09
	10000	χ_{0}^{2}	%	17	0.1026	1.46E-09	34	37	0.3290	7.81E-09	* * *	* * *	* * *	* * *	47	95	0.4429	8.36E-09
	20000	x_0^1	8	17	0.3254	3.98E-09	36	36	1.1692	5.31E-09	* * *	* * *	* * *	* * *	49	66	1.8607	8.19E-09
	20000	x_0^2	8	17	0.3647	2.62E-09	35	38	1.1328	6.99E-09	* * *	* * *	* * *	* * *	48	26	1.8110	8.98E-09
	20000	\mathcal{E}_0^{χ}	8	17	0.3636	1.80E-09	34	37	1.1422	9.62E-09	* * *	* * *	* * *	* * *	48	26	1.8134	6.18E-09
	20000	χ_0^{χ}	∞	17	0.3421	3.28E-09	35	38	1.1169	8.73E-09	* * *	* * *	* * *	* * *	49	66	1.9117	6.74E-09
	20000	$\chi_0^{\chi_2}$	8	17	0.4026	3.27E-09	35	38	1.1230	8.72E-09	* * *	* * *	* * *	* * *	49	66	1.9243	6.72E-09
	20000	x_0^{φ}	%	17	0.3763	3.28E-09	35	38	1.1538	8.73E-09	* * *	* * *	* * *	* * *	49	66	1.9542	6.74E-09
5.6	1000	x_0^1	7	^	0.0201	0	31	33	0.1063	5.49E-09	3	19	0.0457	0	13	27	0.0156	6.97E-09
	1000	x_{0}^{2}	\vdash	4	0.0113	0	40	42	0.0472	5.71E-09	1	4	0.0138	0	14	29	0.0188	7.69E-09
	1000	\mathcal{E}_0^{χ}	гO	15	0.0133	5.81E-10	43	46	0.0397	8.04E-09	28	112	0.0443	9.68E-09	16	33	0.0259	6.71E-09
	1000	x_0^4	\vdash	4	0.0078	0	38	41	0.0416	6.66E-09	П	4	0.0095	0	14	53	0.0216	5.19E-09
	1000	$\chi_0^{\chi_5}$	\vdash	4	0.0081	0	38	40	0.0423	8.88E-09	1	4	0.0075	0	14	29	0.0193	4.99E-09
	1000	x_0^{Q}	\vdash	4	0.0048	0	38	41	0.0422	6.42E-09	1	4	0.0071	0	14	53	0.0240	5.02E-09
	10000	x_0^1	7	^	0.0296	0	31	33	0.1874	5.50E-09	33	19	0.0390	0	13	27	0.0917	9.97E-09
	10000	x_0^2	П	4	0.0159	0	41	44	0.2876	6.17E-09	П	4	0.0218	0	15	31	0.1151	4.75E-09
	10000	$x_0^{\chi_3}$	33	6	0.0314	0	46	49	0.2701	6.95E-09	34	125	0.3018	7.22E-09	17	32	0.1436	2.93E-09
	10000	x_0^4	\vdash	4	0.0136	0	40	43	0.2378	6.67E-09	1	4	0.0314	0	15	31	0.1236	3.09E-09
	10000	$\chi_0^{\chi_5}$	\vdash	4	0.0244	0	40	43	0.2332	5.67E-09	1	4	0.0171	0	15	31	0.1124	3.05E-09
	10000	x_0^{φ}	\vdash	4	0.0124	0	40	43	0.2395	6.55E-09	П	4	0.0198	0	15	31	0.1182	3.06E-09
	50000	x_0^1	7	^	0.0874	0	31	33	0.6102	5.50E-09	3	19	0.1751	0	13	27	0.3478	6.97E-09
	20000	x_{0}^{7}	\vdash	4	0.0476	0	42	45	0.9210	7.30E-09	1	4	0.0474	0	16	33	0.4797	2.12E-09
	20000	$x_0^{\chi_3}$	33	6	0.1235	0	48	21	1.0134	6.48E-09	37	136	1.1184	5.82E-09	17	32	0.4354	6.15E-09
	20000	χ_0^{4}	\vdash	4	0.0913	0	42	44	0.8560	8.94E-09	1	4	0.0632	0	15	31	0.4080	6.87E-09
	20000	$x_0^{\chi_2}$	\vdash	4	0.0553	0	42	44	0.8697	7.76E-09	П	4	0.0484	0	15	31	0.4004	6.79E-09
	20000	χ_0^{φ}	_	4	0.0449	0	42	44	0.8544	8.72E-09	П	4	0.0503	0	15	31	0.3889	6.86E-09

Table 4: Reported results for problems 5.7

	Norm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATTCGP	PT	0.0099	0.0076	0.0054	0.0049	0.0043	0.0069	0.0093	0.0122	0.0119	0.0093	0.0139	0.0157	0.0298	0.0304	0.0312	0.0268	0.0284	0.0251
A	FE	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	#IT	1	П	П	П	П	П	П	П	Т	Т	П	П	П	П	П	П	П	_
	Norm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLPA	PT	0.0050	0.0063	0.0071	0.0057	0.0054	0.0103	0.0132	0.0118	0.0169	0.0140	0.0103	0.0130	0.0354	0.0425	0.0302	0.0360	0.0381	0.0284
	표	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	#II	1	1	1	1	1	1	1	1	\vdash	1	1	1	1	1	1	1	1	1
1	Norm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Algorithm 2.	PT	0.6655	0.0202	0.0053	0.0057	0.0064	0.0067	0.0108	0.0160	0.0109	0.0226	0.0156	0.0108	0.0374	0.0354	0.0714	0.0311	0.0361	0.0403
Alg	FE	2	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	#II	1	1	1	1	1	1	1	1	П	1	1	1	1	1	1	1	1	Т
	Norm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IDKM	PT	0.0096	0.0042	0.0047	0.0059	0.0087	0.0000	0.0125	0.0123	0.0212	0.0143	0.0123	0.0111	0.0256	0.0337	0.0278	0.0308	0.0287	0.0286
	FE	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	#IT	1	1	1	1	1	1	1	1	1	1	Т	_	_	_	_	_	_	1
Ipt	1	x_0^1	x_0^2	$\chi_0^{\chi_3}$	χ_0^{4}	χ_0^{2}	χ_0^{90}	x_0^1	x_0^2	x_0^{3}	χ_0^4	$\chi_0^{\chi_5}$	χ_0^{Q}	x_0^1	x_0^2	χ_0^{33}	χ_0^4	χ_0^{2}	χ_{e}
Nvars		1000	1000	1000	1000	1000	1000	10000	10000	10000	10000	10000	10000	20000	20000	20000	20000	20000	20000
Pnum		5.7																	