Published Modified UNIFAC Interaction Parameters

Literature:
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2: Gmehling, Li, Schiller, Ind.Eng.Chem.Res., 32,178(1993)
3: Gmehling, Lohmann, Jakob, Li, Joh, Ind.Eng.Chem.Res., 37,4876-4882(1998)
4: Gmehling, Wittig, Lohmann, Joh, Ind.Eng.Chem.Res., 41,1678-1688(2002)
5: Wittig, Lohmann, Joh, Horstmann, Gmehling, Ind.Eng.Chem.Res., 40,5831-5838(2001)
6: Lohmann, Joh, Gmehling, Ind.Eng.Chem.Res., 40,957-964(2001)
7: Lohmann, Gmehling, J.Chem.Eng.Jpn., 34,43-54(2001)
8: Wittig, Lohmann, Gmehling, AIChE Journal 49, 2 530-537 (2003)
9: Jakob, Grensemann, Lohmann, Gmehling, Ind.Eng.Chem.Res. 45, 7924-7933 (2006)
10: Hector, Gmehling, Fluid Phase Equilib. 371, 82-92 (2014)
11. Constantinescu, Gmehling, J. Chem. Eng. Data, 61(8), 2738-2748 (2016)
Revised* within the scope of the consortium (available only for members)
Consortium-Parameter (only for members) (Sept. 2017)
*please note that the values displayed in this table are not the consortium parameters

i	j	IP ij	IP ij	IP ij	IP ji	IP ji	IP ji			
1	2	189.66	-0.2723	0.000E+00	-95.418	0.0617	0.000E+00	2		
1	3	114.2	0.0933	0.000E+00	16.07	-0.2998	0.000E+00	2		
1	4	7.339	-0.4538	0.000E+00	47.2	0.3575	0.000E+00	2		
1	5	2777	-4.674	1.551E-03	1606	-4.746	9.181E-04	2		
1	6	2409.4	-3.0099	0.000E+00	82.593	-0.4857	0.000E+00	2		
1	7	1391.3	-3.6156	1.144E-03	-17.253	0.8389	9.021E-04	2		
1	8	1381	-0.9977	0.000E+00	1987	-4.615	0.000E+00	2	x	
1	9	433.6	0.1473	0.000E+00	199	-0.8709	0.000E+00	2	x	
1	10	875.85	0	0.000E+00	256.21	0	0.000E+00	2		
1	11	98.656	1.9294	-3.133E-03	632.22	-3.3912	3.928E-03	2		
1	12	508.4	-0.6215	0.000E+00	238.5	-0.5358	0.000E+00	2		
1	13	233.1	-0.3155	0.000E+00	-9.654	-0.0324	0.000E+00	2		
1	14	-164.04	4.9683	-1.025E-02	326.04	-2.6348	3.358E-03	2		
1	15	350.58	0.0667	0.000E+00	207.26	-1.0916	0.000E+00	2		
1	16	-175.7	1.857	0.000E+00	205.65	-1.4436	0.000E+00	2		
1	17	958.74	-0.1484	0.000E+00	2257.3	-5.6676	0.000E+00	2	x	
1	18	1802.3	-17.171	3.600E-02	-436.15	3.4225	-8.700E-03	3	x	
1	19	593.07	0.7335	0.000E+00	293.81	-1.3979	0.000E+00	2		
1	20	1182.2	-3.2647	9.198E-03	2017.7	-9.0933	1.024E-02	2		
1	21	401	-0.7277	0.000E+00	-65.685	0.0741	0.000E+00	2		
1	22	-233.66	1.2561	0.000E+00	311.55	-1.1856	0.000E+00	2		
1	23	-653.74	4.5311	-8.735E-03	1302.6	-8.427	1.442E-02	2		
1	24	267.51	-1.7109	3.388E-03	-148.07	1.0927	-2.416E-03	2		
1	25	-1385	15.89	-4.831E-02	3264	-20.84	3.317E-02	2	x	
1	26	2345	-13.2	2.156E-02	-396.5	3.092	-6.266E-03	2		
1	27	2383	-2.693	0.000E+00	1744	-4.082	0.000E+00	2		
1	28	24.33	1.521	0.000E+00	72.12	-1.126	0.000E+00	2		
1	29	465.9	-0.8557	0.000E+00	-59.9	-0.0083	0.000E+00	2		
1	30	577.7	0.9384	0.000E+00	210.5	-1.081	0.000E+00	2		
1	31	897.7	0	0.000E+00	28.17	0	0.000E+00	2		
1	32	559.9	-0.3564	0.000E+00	166	-0.7116	0.000E+00	2		
1	33	527.7	-0.499	0.000E+00	-62.08	-0.3658	0.000E+00	2		
1	34	477.5	-0.6581	0.000E+00	-22.04	-0.1018	0.000E+00	2		
1	35	-547.5	3.457	0.000E+00	477.1	-2.175	0.000E+00	2		
1	36	1662	0	0.000E+00	-291.9	0	0.000E+00	2	x	
1	37	334.5	0.0091	0.000E+00	3.202	-0.6894	0.000E+00	2		
1	38	468.5	-1.042	0.000E+00	-160.3	-0.0108	0.000E+00	2		
1	39	406.2	0.6525	0.000E+00	151	-0.9023	0.000E+00	2		
1	40	342	-1.679	0.000E+00	-484.3	2.467	0.000E+00	2		
1	41	1312	-3.643	0.000E+00	-314.6	1.287	0.000E+00	2		
1	42	-117.1	0.5481	-9.800E-04	170.9	-0.8062	1.291E-03	3		
1	43	79.507	0.7089	-2.098E-03	186.71	-1.3546	2.402E-03	2		
1	44	1935.7	0	0.000E+00	-21.23	0	0.000E+00	2		
1	45	164.25	-0.2683	0.000E+00	-44.069	0.0278	0.000E+00	2		
1	46	677.32	-2.0066	0.000E+00	-249.85	1.7054	0.000E+00	3		
1	47	3150.8604	-3.1003	0.000E+00	189.9108	-0.9413	0.000E+00	4		
1	48	1529.5217	-6.2025	9.754E-03	82.5982	-0.615	-6.230E-04	5		
1	49	-923.28	7.8096	-8.81E-03	183.02	-1.2259	5.83E-04	9		
1	50									*
1	51									*
1	52	24.4317	0.2915	0.000E+00	-16.034	-0.5337	0.000E+00	3	x	
1	53	269.6733	0	0.000E+00	-41.0041	0	0.000E+00	6		
1	54									*
1	55	407.4698	-0.2037	-1.590E-04	-0.0668	-0.3935	4.100E-05	7		
1	56	1058.31	-1.1856	0.000E+00	438.76	-1.2256	0.000E+00	8		
1	57									*
1	59									*
1	60									*
1	61	860.51	-1.96	0.000E+00	-309.94	0.6486	0.000E+00	11		
1	62									*

1	63									*
1	64									*
1	65									*
1	66									*
1	67									*
1	68									*
1	69									*
1	70									*
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1	76									*
1	77									*
1	78									*
1	79									*
1	80									*
1	81									*
1	82									*
1	83									*
1	84	70.38	0.24511	0.000E+00	77.7793	0.83298	0.000E+00	2		
1	85	1260.0195	-4.55446	0.0067607	996.5333	-5.48462	0.0095873	3		
1	86									*
1	87	283.8202	-3.9547	0.0103753	907.3842	0.46568	-0.0055872	3		
1	88									*
1	89	360.8016	2.05302	-0.0166992	454.5569	-1.47382	0.0010454	3		
1	90	656.528	-4.2237	0.0074475	-307.8627	3.60996	-0.0081757	3		
1	91	1094.3033	-1.11888	0.00E+00	243.462	-1.03559	0.00E+00	2		
1	92									*
1	93	468.40	-2.5567	0.00E+00	2660.16	-6.8651	0.00E+00	11		
1	94									*
1	96									*
1	97									*
1	98	1859.3741	4.06308	0.00E+00	1131.3051	-0.93175	0.00E+00	2		
1	99	4041.4793	-3.90698	-0.0254482	3504.3254	2.66288	-0.0330202	3		
1	100									*
1	101									*
1	102									*
1	103									*
1	104									*
1	105									*
1	106									*
2	3	174.1	-0.5886	0.000E+00	-157.2	0.6166	0.000E+00	2		
2	4	117.3	-0.8552	0.000E+00	-113.1	1.172	0.000E+00	2		
2	5	2649	-6.508	4.822E-03	1566	-5.809	5.197E-03	2		
2	6	-628.07	10	-1.497E-02	-96.297	0.6304	-1.800E-03	2		
2	7	778.3	0.1482	0.000E+00	-1301	4.072	0.000E+00	2		
2	8	1207	-1.955	0.000E+00	191.6	0.4936	0.000E+00	2	x	
2	9	179.8	0.6991	0.000E+00	91.811	-0.7171	0.000E+00	2	x	
2	10	476.25	0	0.000E+00	202.49	0	0.000E+00	2		
2	11	980.74	-2.4224	0.000E+00	-582.82	1.6732	0.000E+00	2		
2	12	309.8	0	0.000E+00	-28.63	0	0.000E+00	2		
2	13	733.3	-2.509	0.000E+00	-844.3	2.945	0.000E+00	2	x	
2	14	1857	-8.653	1.088E-02	498.8	-5.148	1.039E-02	2		
2	15	224.8	0	0.000E+00	-124.32	0	0.000E+00	2		
2	16	165.3	0	0.000E+00	-131.5	0	0.000E+00	2		
2	17	2800	-10.72	1.339E-02	3982	-19.72	2.783E-02	2	x	
2	18	13.502	0	0.000E+00	-13.317	0	0.000E+00	2	x	
2	19	634.85	0	0.000E+00	-181.93	0	0.000E+00	2		
2	20	-2026.1	8.1549	0.000E+00	-347.5	1.216	0.000E+00	2	x	
2	21	498.9	-1.487	0.000E+00	-359.6	1.238	0.000E+00	2		
2	22	-44.958	0	0.000E+00	55.881	0	0.000E+00	2		
2	23	-204.51	0	0.000E+00	255.41	0	0.000E+00	2		
2	24	616.62	-2.1164	0.000E+00	-663.45	2.3281	0.000E+00	2		
2	25	-56.69	9.805	0.000E+00	215.5	-1.519	0.000E+00	2	x	
2	26	417.6	0.0873	0.000E+00	452.2	-1.997	0.000E+00	2		
2	27									*
2	28	46.06	1.545	0.000E+00	70.88	-1.09	0.000E+00	2		
2	29									*
2	30	470.4	0	0.000E+00	-146.1	0	0.000E+00	2		
2	32									*
2	33	-19.82	0.5941	0.000E+00	160.4	-0.5148	0.000E+00	2		
2	34	642.27	-3.8641	5.500E-03	-197.06	1.8723	-2.700E-03	3		
2	35	-174.6	1.96	0.000E+00	154	-1.303	0.000E+00	2		
2	36	179.7	0	0.000E+00	-113.8	0	0.000E+00	2	x	
2	37	967.9	-0.0386	0.000E+00	-300.6	-0.0958	0.000E+00	2		
2	38	141.1	-0.3025	0.000E+00	-139.5	0.9076	0.000E+00	2		
2	39	388.4	0	0.000E+00	-152.2	0	0.000E+00	2		
2	40									*

2	41	-339.8	1.297	0.000E+00	698.5	-2.159	0.000E+00	2		
2	42	2.406	-0.1882	0.000E+00	60.2	0.1565	0.000E+00	3		
2	43	-322.1	-0.2037	4.517E-03	1182.6	-5	3.745E-03	2		
2	44									*
2	45	389.28	0	0.000E+00	-174.41	0	0.000E+00	2		
2	46	491.23	-1.8285	0.000E+00	-734.87	3.3463	0.000E+00	3		
2	47	673.2267	1.9523	0.000E+00	92.6993	-0.8135	0.000E+00	4		
2	48	249.18	0	0.000E+00	-81.79	0	0.000E+00	4		
2	49	1171.3	3.9213	0.00E+00	90.013	-0.92002	0.00E+00	9		
2	50									*
2	52	-86.2315	0	0.000E+00	-39.3735	0	0.000E+00	3	x	
2	53	9.3895	0	0.000E+00	57.8594	0	0.000E+00	6		
2	54									*
2	55	-456.082	2.4334	0.000E+00	298.5526	-1.4153	0.000E+00	7		
2	56	775.56	0	0.000E+00		0	0.000E+00	8		
2	57									*
2	59									*
2	60									*
2	61	324.32	0	0.000E+00	-156.46	0	0.000E+00	11		
2	62									*
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2	78									*
2	80									*
2	81									*
2	82									*
2	83									*
2	84	-44.3408	-0.65212	0.000E+00	1753.1349	-3.11209	0.000E+00	2		
2	85	566.2915	-0.14057	0.000E+00	-1213.9299	5.14012	0.000E+00	2		
2	86									*
2	87	-92.7302	-0.25088	0.0000000	-1151.2961	4.7125	0.000E+00	2		
2	88									*
2	89	1230.7809	0.17033	0.0141503	4896.2194	-1.86077	-0.0254894	3		
2	93	-740.24	0	0.000E+00	232.90	0	0.000E+00	11		
2	94									*
2	90	1625.9094	-2.40107	0.000E+00	159.8103	1.85317	0.000E+00	2		*
2	91	2979.9734	4.82369	-0.0272505	724.9113	-4.79411	0.0056279	3		
2	92									
2	93									*
2	95									
2	96									
2	97									
2	98	2487.6321	-3.28182	0.000E+00	1804.0253	-5.18107	0.000E+00	2		
2	99	-2399.7383	-0.27451	0.0329518	658.1962	0.57714	-0.0078001	3		
2	101									*
2	103									*
2	105									*
2	106									*
3	4	139.2	-0.65	0.000E+00	-45.33	0.4223	0.000E+00	2		
3	5	3972	-13.16	1.208E-02	3049	-12.77	1.435E-02	2	x	
3	6	1604.3	-2.0299	0.000E+00	13.733	-0.1177	0.000E+00	2		
3	7	792	-1.726	0.000E+00	332.3	1.158	0.000E+00	2		
3	8	1356	-2.118	0.000E+00	2340	-5.043	0.000E+00	2	x	
3	9	146.2	-1.237	4.237E-03	-57.53	1.212	-3.715E-03	2	x	
3	10	-365.5	1.874	0.000E+00	1011	-2.167	0.000E+00	2		
3	11	-274.54	0.9149	0.000E+00	622.73	-1.7605	0.000E+00	2		
3	12	170.5	-0.0239	0.000E+00	108.3	-0.262	0.000E+00	2		
3	13	-87.08	-0.1859	0.000E+00	179	0.0562	0.000E+00	2		
3	14	2036	-8.729	8.138E-03	-121	-1.901	6.999E-03	2		
3	15	139.67	0.0377	0.000E+00	105.63	-0.6067	0.000E+00	2		
3	16	-71.4	0.7078	0.000E+00	16.29	-0.6022	0.000E+00	2		
3	17	1044.7	-1.7112	0.000E+00	154.39	1.2458	0.000E+00	2	x	
3	18	-1553.9216	0.1615	8.151E-03	1810.7758	-5.7594	2.301E-03	3	x	
3	19	-17.44	0.9437	0.000E+00	111.8	-0.5959	0.000E+00	2		
3	20	69.561	1.8881	0.000E+00	613.32	-1.595	0.000E+00	2		
3	21	73.046	-0.2132	0.000E+00	-58.972	0.1046	0.000E+00	2		
3	22	133.66	-0.4614	0.000E+00	-142.2	0.3966	0.000E+00	2		
3	23	66.214	-0.6363	0.000E+00	-78.116	0.6998	0.000E+00	2		
3	24	269	-1.776	2.645E-03	-305.5	2.12	-3.239E-03	2		

3	25	595.2	3.309	-2.844E-02	1885	-10.98	1.661E-02	2	x	
3	26	134.1	-0.8156	1.450E-03	-330	3.066	-5.376E-03	2		
3	27	746.9	0	0.000E+00	36.45	0	0.000E+00	2	x	
3	28	3736	-25	4.593E-02	574.6	-3.702	3.682E-03	2		
3	29	59.23	0	0.000E+00	-41.77	0	0.000E+00	2	x	
3	30	331.6	0.3778	0.000E+00	0.4086	-0.4601	0.000E+00	2		
3	31	-148.1375	2.2658	-3.528E-03	-93.1859	1.5036	-1.414E-03	7		
3	32	-82.28	0.5677	0.000E+00	298.9	-0.8374	0.000E+00	2		
3	33	-248.2	1.214	0.000E+00	187.5	-0.902	0.000E+00	2		
3	34									*
3	35	347.6	-1.43	0.000E+00	-345.6	1.545	0.000E+00	2		
3	36									*
3	37	602.1	-7.798	1.966E-02	1887	-8.707	7.813E-03	2		
3	38	808	-5.331	6.077E-03	-1367	7.883	-7.754E-03	2		
3	39	-81.6858	1.1229	-1.050E-03	58.762	-0.6263	6.680E-04	4		
3	40	123.2616	-0.6133	0.000E+00	419.0446	-0.1703	0.000E+00	6		
3	41	-126.2	0.386	0.000E+00	670.8	-1.807	0.000E+00	2		
3	42	134.6	-1.231	1.488E-03	-2.619	1.094	-1.557E-03	3		
3	43	-26.852	-0.4421	0.000E+00	47.23	0.6404	0.000E+00	2		
3	44	-1172	10.106	-1.428E-02	-1141.6	8.6562	-1.544E-02	2		
3	45	380.02	-0.2333	0.000E+00	-201.52	-0.0688	0.000E+00	2		
3	46	313.79	-1.1552	0.000E+00	-258.12	1.4084	0.000E+00	3		
3	47	1083.631	0.9144	-2.141E-03	160.1332	-1.3578	1.331E-03	4		
3	48	92.4984	1.4186	1.800E-05	-14.889	-0.8126	2.000E-06	5		
3	49	-103.15	2.6565	-2.82E-03	45.43	-0.57085	2.81E-04	9		
3	50									*
3	51									*
3	52	1412.0217	-3.9917	0.000E+00	-660.2538	1.4602	0.000E+00	3	x	
3	53	392.5569	0	0.000E+00	-260.2204	0	0.000E+00	6		
3	54									*
3	55	849.0762	-6.5044	1.219E-02	-358.0581	3.6831	-7.822E-03	7		
3	56	-522.32	3.8856	-4.212E-03	562.72	-2.4316	2.420E-03	8		
3	57									*
3	58									*
3	59									*
3	60									*
3	61	454.32	-1.2194	0.000E+00	-388.19	1.043	0.000E+00	11		
3	62									*
3	63									*
3	64									*
3	65									*
3	66									*
3	67									*
3	68									*
3	69									*
3	70									*
3	71									*
3	72									*
3	74									*
3	75									*
3	76									*
3	77									*
3	78									*
3	80									*
3	81									*
3	82									*
3	83									*
3	84	277.4415	-0.1843	0.000E+00	-223.7499	0.2781	0.000E+00	2		
3	85	825.9189	-4.35541	0.0085572	20.2719	-0.33187	0.0025793	3		
3	86									*
3	87	-1304.1073	3.87435	0.0039496	26.3894	0.38631	-0.0027586	3		
3	88									*
3	89	626.9603	-4.30606	0.000E+00	2116.3985	-2.11062	0.000E+00	2		*
3	90	161.7745	-0.56713	0.000E+00	785.4488	-3.09114	0.000E+00	2		
3	91	1690.0651	-3.38808	0.0202432	-15.3556	-0.15571	-0.0001404	3		
3	92									*
3	93	-630.42	0	0.000E+00	-72.27	0	0.000E+00	11		
3	94									*
3	95									*
3	96									*
3	97									*
3	98	1014.6859	-1.73087	0.000E+00	877.6001	-1.96581	0.000E+00	2		
3	99	4899.8462	-3.53433	-0.0358313	-969.6266	3.81305	0.0028389	3		
3	100									*
3	101									*
3	102									*
3	103									*
3	104									*
3	105									*
3	106									*

4	5	3989	-14.09	1.530E-02	2673	-5.765	-3.320E-04	2	x	
4	6	436.21	1.9094	0.000E+00	145.54	-0.488	0.000E+00	2		
4	7	1050.2	-1.9939	0.000E+00	24.144	1.6504	0.000E+00	2		
4	8	1375	-1.702	0.000E+00	1825	-3.743	0.000E+00	2	x	
4	9	1001	-1.871	2.390E-04	-146.6	0.2419	1.133E-04	2	x	
4	10	683.6	-1.02	8.690E-04	1963	2.656	-1.355E-02	2		
4	11	-242.5	2.72	-3.449E-03	1624	-9.409	1.338E-02	2		
4	12	78.94	0	0.000E+00	732	0	0.000E+00	2	x	
4	13	-595.1	2.978	0.000E+00	375	-1.57	0.000E+00	2		
4	14	2977	-19.16	3.333E-02	-45.44	5.141	-1.420E-02	2		
4	15	1250	0	0.000E+00	-316.22	0	0.000E+00	2		
4	16	-2631	13.56	-7.036E-03	978.3	-6.481	7.088E-03	2		
4	17	4000	-16.68	2.112E-02	3969	8.497	-5.945E-03	2	x	
4	18	135.3	-2.369	3.900E-03	1698.1	-9.8887	1.530E-02	3	x	
4	19	208.1	1.333	0.000E+00	170.1	-0.8218	0.000E+00	2		
4	20	1352.5	0	0.000E+00	29.747	0	0.000E+00	2		
4	21	-46.994	0.3044	0.000E+00	113.07	-0.5957	0.000E+00	2		
4	22	213.85	0.2	0.000E+00	-75.01	-0.4268	0.000E+00	2		
4	23	192.52	-0.2536	0.000E+00	-38.939	-0.1938	0.000E+00	2		
4	24	-106.2	0.6081	0.000E+00	107.8	-0.6785	0.000E+00	2		
4	25	-113.6	19.72	0.000E+00	-69.23	-0.7359	0.000E+00	2	x	
4	26	1358	-9.968	2.093E-02	1014	-4.702	4.381E-03	2		
4	27	-2345	12.29	0.000E+00	1567	-2.678	0.000E+00	2	x	
4	28	2586	-9.5	8.819E-03	-1494	7.679	-1.225E-02	2		
4	29									*
4	30	157.9	1.408	0.000E+00	181.2	-1.081	0.000E+00	2		
4	31	1856.4481	5.9959	-1.862E-02	1041.3278	-5.2068	7.174E-03	7		
4	32	69	0.4317	0.000E+00	448.8	-0.9919	0.000E+00	2	x	
4	33	277	-0.5955	0.000E+00	-156.7	0.1221	0.000E+00	2		
4	34									*
4	35	88.93	0.2236	0.000E+00	178.6	-0.7113	0.000E+00	2		
4	36									*
4	37	234.2	-0.2311	0.000E+00	-115.9	-0.0292	0.000E+00	2		
4	38	-172.2	0.2257	0.000E+00	-13.15	0.0018	0.000E+00	2		
4	39	444.2907	0.1947	0.000E+00	64.2776	-0.5839	0.000E+00	4		
4	40	29.5689	0	0.000E+00	153.3207	0	0.000E+00	6		
4	41	2303	-6.346	0.000E+00	-736.8	3.332	0.000E+00	2		
4	42	-107.1	0.2564	0.000E+00	191.5	-0.5561	0.000E+00	3		
4	43	-26.486	-0.2952	0.000E+00	199.48	0.0337	0.000E+00	2		
4	44	-514.79	4.9372	0.000E+00	291.65	-1.2039	0.000E+00	2		
4	45	297.73	-0.242	0.000E+00	-248.3	0.2547	0.000E+00	2		
4	46	72.26	-0.1919	0.000E+00	763.57	-1.3961	0.000E+00	3		
4	47	1696.962	-0.7064	0.000E+00	340.9073	-1.008	0.000E+00	4		
4	48	76.7251	0.9394	-4.500E-04	246.0842	-0.8198	-1.370E-04	4		
4	49	-182.32	3.3673	-4.63E-03	119.77	-0.60893	6.07E-04	9		
4	50									*
4	51									*
4	52	1000.8407	-2.5194	0.000E+00	-139.7802	0.1146	0.000E+00	3	x	
4	53	164.0493	0	0.000E+00	102.0413	0	0.000E+00	6		
4	54									*
4	55	558.0843	0.565	-3.307E-03	562.34	-3.4373	6.326E-03	7		
4	56	-307.42	4.1819	-7.723E-03	1661.26	-8.697	1.424E-02	8		
4	57									*
4	58									*
4	59									*
4	60									*
4	61	629.46	-1.3904	0.000E+00	-305.27	0.6691	0.000E+00	11		
4	62									*
4	63									*
4	64									*
4	65									*
4	68									*
4	71									*
4	74									*
4	75									*
4	76									*
4	77									*
4	78									*
4	80									*
4	81									*
4	83									*
4	84	930.7075	-4.30401	0.007841	365.3965	-1.20387	-0.0007792	3		
4	85	-313.9384	2.06128	0.00E+00	-134.6708	1.38462	0.00E+00	2		
4	86									*
4	87	-935.3928	1.26386	0.0041351	4101.3738	-1.19824	-0.0186009	3		
4	88									*
4	89	524.3056	-4.26859	0.000E+00	1259.4705	-1.91791	0.000E+00	2		*
4	90	453.4621	-2.03845	0.000E+00	3997.1805	-2.994	0.000E+00	2		
4	91	1077.4704	-2.43883	0.000E+00	-998.0735	4.48792	0.000E+00	2		
4	92									*

4	93	-478.07	0	0.000E+00	15.05	0	0.000E+00	11		
4	94									*
4	95									*
4	96									*
4	97									*
4	100									*
4	101									*
4	102									*
4	103									*
4	104									*
4	105									*
4	106									*
4	98	1113.4357	-0.428312	0.000E+00	-281.4692	1.00738	0.000E+00	2		
4	99	335.1104	2.26653	0.0239277	3792.062	-2.55407	-0.0217293	3		
5	6	346.31	-2.4583	2.929E-03	-1218.2	9.7928	-1.616E-02	2		
5	7	-801.9	3.824	-7.514E-03	1460	-8.673	1.641E-02	2		
5	8	83.91	-1.262	0.000E+00	465.4	-1.841	0.000E+00	2	x	
5	9	-250	2.857	-6.022E-03	653.3	-1.412	9.540E-04	2	x	
5	10	-281.4	2.379	-6.668E-03	1590	-24.57	6.212E-02	2	x	
5	11	973.8	-5.633	7.690E-03	310.4	1.538	-4.885E-03	2		
5	12	235.9	-0.5874	0.000E+00	839.6	-1.215	0.000E+00	2		
5	13	816.7	-5.092	6.065E-03	650.9	-0.7132	8.150E-04	3		
5	14	-923.7	2.468	0.000E+00	-75.63	-0.1511	0.000E+00	2		
5	15	-355.1	0.58	0.000E+00	-660.2	1.743	0.000E+00	2		
5	16	104.6	-5.014	8.854E-03	1876	11.5	9.000E-02	2		
5	17	-1114	5.916	-7.126E-03	1325	-6.263	7.584E-03	2	x	
5	18	-3061.2	9.5413	1.842E-01	-643.09	2.9346	-5.500E-03	3	x	
5	19	123.5	0.8503	-2.478E-03	-46	4.415	-8.780E-03	2		
5	20	-1295	4.3634	0.000E+00	1525.8	-4.9155	0.000E+00	2		
5	21	238.1	-0.7077	0.000E+00	2177	-4.363	0.000E+00	2		
5	22	-126	0.1322	0.000E+00	2389	-4.509	0.000E+00	2		
5	23	1314.8	0	0.000E+00	963.37	0	0.000E+00	2	x	
5	24	925.6	-2.027	0.000E+00	3139	-5.964	0.000E+00	2		
5	25	1862	32.07	-9.397E-03	3664	34.13	2.987E-03	2	x	
5	26	741.8	-2.098	0.000E+00	1091	-1.274	0.000E+00	2		
5	27	2100	0	0.000E+00	316.6	0	0.000E+00	2	x	
5	28									*
5	29									*
5	30	738.4	-1.771	0.000E+00	616.5	-0.1457	0.000E+00	2		
5	31	499.8	-2.41	0.000E+00	-468.8	2.421	0.000E+00	2		
5	32	838.8	0	0.000E+00	774.7	0	0.000E+00	2		
5	33	699.7	-1.767	0.000E+00	1439	-1.673	0.000E+00	2		
5	34	-148.9	1.034	0.000E+00	1255	-2.538	0.000E+00	2		
5	35	190.4	-1.2	0.000E+00	-452.3	1.956	0.000E+00	2		
5	36	1117	-2.196	0.000E+00	1072	-1.248	0.000E+00	2		
5	37	439.4	0	0.000E+00	959.3	0	0.000E+00	2		
5	38	848.6	0	0.000E+00	1253	0	0.000E+00	2	x	
5	39	1036	-2.995	0.000E+00	-366.4	1.129	0.000E+00	2		
5	40									*
5	41	403.8	-0.9346	0.000E+00	703.4	-1.383	0.000E+00	2		
5	42	3121	-13.69	1.446E-02	2601	-1.25	-6.309E-03	3		
5	43	401.89	-0.4363	-2.004E-03	-238.36	5	-8.186E-03	2		
5	45	-32.643	-0.0104	0.000E+00	2985.8	-6.227	0.000E+00	2		
5	46	1201.3	-4.6803	0.000E+00	-516.99	2.1888	0.000E+00	2	x	
5	47	186.2441	-3.1349	7.737E-03	1460.824	-5.962	4.691E-03	4		
5	48	1627.811	-5.8598	5.497E-03	-808.3953	3.8321	-5.877E-03	5		
5	49	-150.96	0.52795	0.00E+00	868.68	-2.201	0.00E+00	9		
5	50									*
5	52	-3745	4.5137	6.360E-02	7712.2	-7.6896	-3.500E-02	3	x	
5	53	495.2762	-2.6496	1.594E-03	700.0498	0.2237	-2.441E-03	6		
5	54									*
5	55								x	*
5	56	34.94	1.0075	-2.547E-03	942.22	-2.3183	1.188E-03	8		
5	57									*
5	58									*
5	59									*
5	60									*
5	61	1105.94	-1.6876	0.000E+00	1343.95	-2.1649	0.000E+00	11		
5	62									*
5	63									*
5	64									*
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5	78									*
5	79									*
5	80									*
5	81									*
5	83									*
5	84	292.6468	-1.59145	0.000E+00	147.0663	2.08434	0.000E+00	2		
5	85	1026.2885	-3.17777	0.000E+00	-792.9883	3.87681	0.000E+00	2		
5	86									*
5	87	-348.7564	1.92474	0.000E+00	1003.4976	-2.48421	0.000E+00	2		
5	88									*
5	89	-2448.212	-2.13997	0.0332832	-234.3916	4.01945	-0.0134709	3		
5	90	1178.0482	5.33766	0.000E+00	1044.8761	-3.71273	0.000E+00	2		
5	91	-159.8631	2.41804	0.000E+00	662.1286	-3.28127	0.000E+00	2		
5	92									*
5	93	-367.32	0	0.000E+00	34.71	0	0.000E+00	11		
5	94									*
5	97									*
5	98	225.0235	-4.3271	0.0030855	448.381	-1.61662	0.000518	3		
5	99	-352.1841	-1.58363	0.0090199	1751.4293	-1.09998	-0.0148923	3		
5	100									*
5	101									*
5	102									*
5	105									*
5	106									*
6	7	-328.5	1.0823	-2.200E-03	-524.3	4.6065	-4.000E-03	2	x	
6	8	-867	-1.258	2.998E-02	265.5	-2.905	2.283E-03	2	x	
6	9	86.439	-0.4651	0.000E+00	394.78	-0.3605	0.000E+00	2	x	
6	10	-392.5	2.256	0.000E+00	-158.4	-0.6469	0.000E+00	2	x	
6	11	299.23	-1.2702	0.000E+00	294.76	0.3745	0.000E+00	2		
6	12	220.7	-0.6402	0.000E+00	444.7	-0.0682	0.000E+00	2		
6	13	-87.48	-0.5522	0.000E+00	475.2	0.1198	0.000E+00	2		
6	14	-495.25	1.0807	0.000E+00	-467.95	0.6574	0.000E+00	2		
6	15	-1508.5	4.4917	0.000E+00	-278.09	-0.3989	0.000E+00	2		
6	16	-1039	5.603	-6.551E-03	39.33	-3.354	6.714E-03	2		
6	17	-2012	13.46	-2.004E-02	251.2	-1.274	2.214E-03	2	x	
6	18	-341.3436	-5.8042	1.406E-02	-230.3807	-0.3825	2.329E-03	3	x	
6	19	97.973	-0.2867	0.000E+00	615.01	-0.9444	0.000E+00	2		
6	20	-733.07	2.3351	0.000E+00	1075.5	-3.4339	0.000E+00	2	x	
6	21	-16.521	-0.2814	0.000E+00	1831.2	-2.9694	0.000E+00	2		
6	22	-85.926	-0.2637	0.000E+00	1904.4	-2.7981	0.000E+00	2		
6	23	-139.58	0	0.000E+00	893.38	0	0.000E+00	2		
6	24	-40.13	-0.0671	0.000E+00	2150	-2.813	0.000E+00	2		
6	25	3000	-11.81	0.000E+00	2955	-6.383	0.000E+00	2	x	
6	26	374.2	-2.212	2.688E-03	1079	-1.766	1.238E-03	2		
6	27									*
6	28	-332.4	4.419	-7.797E-03	2645	-9.172	1.177E-02	2		
6	29	75.71	-0.3753	0.000E+00	1334	-1.863	0.000E+00	2		
6	30	-369.8	2.203	0.000E+00	662	-1.903	0.000E+00	2		
6	31	33.19	-0.2074	0.000E+00	-3.428	0.483	0.000E+00	2		
6	32	180.5	0.3161	0.000E+00	1965	-3.858	0.000E+00	2		
6	33	28.95	-0.3303	0.000E+00	648.8	0.805	0.000E+00	2		
6	34									*
6	35	-185.9	0.0391	0.000E+00	145	-0.6343	0.000E+00	2		
6	36	164	0	0.000E+00	135.9	0	0.000E+00	2		
6	37	-43.88	0	0.000E+00	2421	0	0.000E+00	2		
6	38	-99.58	0	0.000E+00	1235	0	0.000E+00		x	
6	39	101.2	-1.078	0.000E+00	-269.7	1.732	0.000E+00	2		
6	40									*
6	41	308.7	-1.175	0.000E+00	678.1	-1.335	0.000E+00	2		
6	42	68.972	-0.42	0.000E+00	2540.7	-3.5236	0.000E+00	2		
6	43	-308.7	1.7454	-3.350E-03	952.24	-3.3287	5.360E-03	2		
6	45	-242.6	0.2956	-9.006E-05	4519.2998	-19.456	2.598E-02	2		
6	46									
6	47	-119.0759	0.9938	0.000E+00	-52.6911	-0.7465	0.000E+00	4		
6	48	210.9088	-2.4953	4.800E-03	-132.9266	0.6584	-2.080E-03	4		
6	49	197.4	-0.98596	0.00E+00	-195.13	1.1765	0.00E+00			
6	50									*
6	52	673.7189	-2.3567	0.000E+00	2676.7324	-5.4899	0.000E+00	2	x	
6	53	137.9489	-1.4112	1.718E-03	524.5239	0.4314	-1.661E-03	6		
6	54									*
6	55									*
6	56	166.42	0.994	-3.346E-03	1683.48	-8.0031	1.159E-02	8		
6	57									*
6	58									*
6	59									*
6	60									*
6	61	34.79	0	0.000E+00	641.04	0	0.000E+00	11		
6	62									*

6	63									*
6	64									*
6	65									*
6	67									*
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6	76									*
6	77									*
6	78									*
6	79									*
6	80									*
6	81									*
6	83									*
6	84	-704.2285	-1.26236	0.0149627	152.7192	2.17856	-0.0098745	3		
6	85	-348.9494	1.41462	0.000E+00	2127.895	-4.14737	0.000E+00	2		
6	90	53.7776	-0.9791	0.000E+00	94.629	0.30192	0.000E+00	2		
6	86									*
6	87	-1230.4971	3.91001	0.000E+00	1142.8969	-2.92427	0.000E+00	2		
6	88									*
6	89	-671.2604	1.58636	-0.0048637	985.4429	-2.42145	-0.0062036	3		
6	91	1741.0607	-4.73718	0.000E+00	-558.6751	1.11398	0.000E+00	2		
6	92									*
6	93	1216.71	-5.4483	0.000E+00	-386.35	3.7787	0.000E+00	11		
6	94									*
6	96									*
6	97									*
6	101									*
6	106									*
6	98	1037.5603	-5.46099	0.000E+00	1421.5572	0.34143	0.000E+00	2		
7	8	-2686	19.44	-2.702E-02	148.4	-2.757	2.329E-03	2	x	
7	9	190.5	-3.669	8.838E-03	770.6	-0.5873	-3.252E-03	2	x	
7	10	-1545	6.512	0.000E+00	512.6	-2.145	0.000E+00	2		
7	11	-675.5	3.609	0.000E+00	322.3	-1.305	0.000E+00	2	x	
7	12	140.707	0	0.000E+00	53.2836	0	0.000E+00	5		
7	13	-197.5	0.1766	0.000E+00	140.7	0.0568	0.000E+00	2	x	
7	14	798.5	-5.869	1.032E-02	-980.6	3.671	-5.908E-03	2		
7	15	1524	-2.531	0.000E+00	-851	1.034	0.000E+00	2		
7	16	274.5	-0.5905	2.205E-03	-446	-0.7738	2.634E-03	2		
7	17	158.4	0.5246	0.000E+00	-131	-0.7957	0.000E+00	2	x	
7	18	-3178.5	9.8213	-3.400E-03	-393.18	0.5546	-2.900E-03	3	x	
7	19	-634.1	3.59	0.000E+00	509.6	-1.916	0.000E+00	2		
7	20	-1795.2	12.708	-1.546E-02	624.97	-4.6878	5.237E-03	2		
7	21	86.69	1.592	0.000E+00	313.3	-0.5041	0.000E+00	2		
7	22	134.1	0.9495	0.000E+00	748.2	-1.319	0.000E+00	2		
7	23									*
7	24	1008	-1.795	0.000E+00	1282	-2.815	0.000E+00	2	x	
7	25	-1895	9.303	0.000E+00	591.6	-3.08	0.000E+00	2	x	
7	26	-595.7	2.634	0.000E+00	882.6	-2.606	0.000E+00	2		
7	27									*
7	28									*
7	29									*
7	30	-123.8	3.847	0.000E+00	501.4	-1.939	0.000E+00	2		
7	31	372.5	-0.9091	0.000E+00	-368.8	0.7775	0.000E+00	2	x	
7	33	822.2	0	0.000E+00	-17.99	0	0.000E+00	2		
7	34									*
7	35	117	-0.611	0.000E+00	-370.8	0.1043	0.000E+00	2		
7	36	419.8	2.436	0.000E+00	276.9	-0.9948	0.000E+00	2		
7	38									*
7	39	-494.2	2.826	0.000E+00	-121.8	-0.6029	0.000E+00	2		
7	40									*
7	41	676	-0.9909	0.000E+00	808.4	-2.929	0.000E+00	2		
7	42	274.37	-0.5861	-3.001E-04	1632.9	-2.8719	3.455E-03	2		
7	43	-75.75	-0.9851	3.3320E-03	717.48	-1.4851	-7.44E-16	11		
7	44	-804.28	2.828	0.000E+00	594.45	-2.2535	0.000E+00	2		
7	45	509.3	-0.29	0.000E+00	-523.8	3.158	0.000E+00	2	x	
7	46	659.22	-1.8841	0.000E+00	-588.21	0.9707	0.000E+00	3		
7	47	934.6664	-4.4232	6.054E-03	-649.3126	1.3487	-1.586E-03	4		
7	48	64.443	-0.0094	0.000E+00	-439.5799	0.3142	0.000E+00	4		
7	49	-1119.8	7.9591	-8.56E-03	-128.9	-0.46852	-9.16E-04	9		
7	50									*
7	52									*
7	53	499.4436	-6.6553	1.656E-02	952.5726	-0.8437	-4.795E-03	6		
7	55									
7	56	-302.93	0.5975	0.000E+00	652.86	-1.8013	0.000E+00	8		
7	57									*
7	58									*
7	59									*

7	61	1038.3	0	0.000E+00	-270.53	0	0.000E+00	11		
7	60									*
7	62									*
7	63									*
7	61	1038.3	0	0.000E+00	-270.53	0	0.000E+00	11		
7	67									*
7	69									*
7	70									*
7	72									*
7	74									*
7	75									*
7	76									*
7	77									*
7	78									*
7	79									*
7	82									*
7	83									*
7	84	659.2109	-0.59252	0.0451602	151.31	-3.00895	0.0019814	3		
7	85	2770.8505	-2.00944	0.000E+00	1996.7238	-5.47448	0.000E+00	2		
7	88									*
7	89	2707.1611	-2.51124	-0.0022558	-399.1902	0.16195	-0.0067585	3		
7	90	-1616.1736	5.32305	0.000E+00	275.7479	-1.97057	0.000E+00	2		
7	91	318.2128	-1.42376	0.000E+00	385.0068	-2.49001	0.000E+00	2		
7	92									*
7	93	4878.28	-6.3876	0.000E+00	-444.62	-0.7765	0.000E+00	11		
7	94									*
7	96									*
7	97									*
7	98	206.2641	-2.57259	0.0032526	-371.2031	0.99046	-0.000807	3		
7	100									*
7	101									*
7	102									*
7	103									*
7	105									*
7	106									*
8	9	-145.2	-0.738	0.000E+00	-666.8	1.918	0.000E+00	2	x	
8	10									*
8	11	-212.9	0	0.000E+00	-224.4	0	0.000E+00	2	x	
8	12									*
8	13	-329.3	0	0.000E+00	-80.58	0	0.000E+00	2	x	
8	14									*
8	16									*
8	17	542	-6.792	1.655E-02	-131.1	-0.9399	4.690E-04	2	x	
8	18	-4080.8999	12.859	-1.010E-02	-41.594	-3.5887	4.000E-03	2	x	
8	20	401.88	0	0.000E+00	281.08	0	0.000E+00	2	x	
8	21									*
8	22									*
8	23									*
8	24	2356	-3.347	0.000E+00	2157	-3.718	0.000E+00	2	x	
8	25	555.5	0	0.000E+00	1554	0	0.000E+00	2	x	
8	27									*
8	31	-309	0	0.000E+00	191.7	0	0.000E+00	2	x	
8	33									*
8	37									*
8	39									*
8	41									*
8	42	391.2	-0.8799	0.000E+00	3630	-6.23	0.000E+00	2	x	
8	43									*
8	45									*
8	46									*
8	47									*
8	50									*
8	52	4911.3999	9.8501	0.000E+00	2332.5	-4.0832	0.000E+00	2	x	
8	53									*
8	55									*
8	57									*
8	58									*
8	59									*
8	60									*
8	78									*
8	83									*
8	86									*
8	105									*
8	106									*
9	10	197.6	0	0.000E+00	-93.08	0	0.000E+00	2	x	
9	11	-16.486	-0.2792	0.000E+00	33.415	0.2191	0.000E+00	2	x	
9	12	-83.57	0	0.000E+00	101.3	0	0.000E+00	2	x	
9	13	3645	-26.91	4.757E-02	695.8	-0.9619	-2.462E-03	2	x	
9	15	-47.97	0	0.000E+00	119.5	0	0.000E+00	2	x	

9	16	-389.6	0.1944	1.863E-03	2831	-13.01	1.558E-02	2	x	
9	17	1732	-9.896	1.410E-02	1460	-13.73	2.917E-02	2	x	
9	18	-1908.7	4.1057	0.000E+00	307.16	-0.8161	0.000E+00	2	x	
9	19	-191	0.6835	0.000E+00	79.08	-0.3808	0.000E+00	2	x	
9	20	-109.51	0.9689	0.000E+00	178.22	-0.9168	0.000E+00	2	x	
9	21	-99.976	0	0.000E+00	55.27	0	0.000E+00	2	x	
9	22	-18.695	-0.5261	0.000E+00	-218.94	1.0749	0.000E+00	2	x	
9	23	810.17	-3.2209	2.144E-03	-48.641	-0.795	3.713E-03	2	x	
9	24	-208.71	0.8293	-1.400E-03	155.73	1.4412	-2.500E-03	3	x	
9	25	1297	-1.365	-2.253E-02	1375	2.499	6.309E-03	2	x	
9	26	-35.89	-0.1009	0.000E+00	-32.6	0.0847	0.000E+00	2	x	
9	27	-169.6	2.986	0.000E+00	-328.1	0.3045	0.000E+00	2	x	
9	28	419.9	0.0977	0.000E+00	315.3	-0.5617	0.000E+00	2	x	
9	29	2.714	0	0.000E+00	64.41	0	0.000E+00	2	x	
9	30	-986	3.847	0.000E+00	277	-1.357	0.000E+00	2	x	
9	31	478.5	-1.148	0.000E+00	-72.58	0.4909	0.000E+00	2	x	
9	32	346.6	-0.7017	0.000E+00	-182	0.7905	0.000E+00	2	x	
9	33	-717.76	2.9431	0.000E+00	319.69	-1.4362	0.000E+00	2	x	
9	34	-62.43	-0.8977	0.000E+00	-481.2	9.604	0.000E+00	2	x	
9	35	-76.87	0.5372	0.000E+00	38.06	-0.5189	0.000E+00	2	x	
9	36									*
9	37	64.01	-1.077	0.000E+00	-153.4	3.143	0.000E+00	2	x	
9	38									*
9	39	80.792	-3.702	1.159E-02	1955.5	-10	1.139E-02	2	x	
9	40									*
9	41	64.21	0	0.000E+00	-148.3	0	0.000E+00	2	x	
9	42	437.74	-2.7983	3.640E-03	364.42	2.1022	-4.653E-03	11		
9	43	-62.857	0.2898	0.000E+00	80.038	-0.1012	0.000E+00	2	x	
9	44									*
9	45	-497.98	0.7972	2.982E-04	945.14	-3.8168	4.535E-03	2	x	
9	46									*
9	47	502.1003	0.3401	0.000E+00	141.0113	-0.9829	0.000E+00	4	x	
9	48	37.369	0	0.000E+00	-116.4047	0	0.000E+00	4	x	
9	49	410.65	-1.1056	0.00E+00	-201.11	0.7123	0.00E+00	9		
9	52	-153.7	0.242	0.000E+00	2311.5	-6.6054	0.000E+00	2	x	
9	53									*
9	54									*
9	55									*
9	56									*
9	60									*
9	61									*
9	62									*
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9	74									*
9	75									*
9	76									*
9	77									*
9	80									*
9	81									*
9	82									*
9	83									*
9	84	173.4451	-5.52695	0.0160979	958.3726	-4.73012	0.0047161	3		
9	85	824.1235	-2.88368	0.0041569	670.0023	-5.05233	0.0074865	3		
9	86									
9	87	99.5504	0.45575	0.000E+00	-1504.1909	4.63058	0.000E+00	2		
9	88									*
9	89	147.2528	-2.74448	0.000E+00	177.8232	-2.24998	0.000E+00	2		
9	90	331.1518	-1.11421	0.000E+00	-30.955	-0.71244	0.000E+00	2		
9	91	571.6566	-4.43975	0.000E+00	-1449.5725	4.44554	0.000E+00	2		
9	93									*
9	94									*
9	98	519.4855	-5.4673	0.0068391	3306.3645	0.15196	-0.0082641	3		
9	101									*
9	102									*
9	103									*
9	106									*
10	11	-208.4	0	0.000E+00	389.7	0	0.000E+00	2		
10	12	-160.7	0	0.000E+00	226.6	0	0.000E+00	2		
10	13	209	-0.6241	0.000E+00	235.7	0.1314	0.000E+00	2		
10	19									*
10	20	435.64	0	0.000E+00	-188	0	0.000E+00	2		
10	21	985.7	-2.986	0.000E+00	-888.3	3.426	0.000E+00	2		
10	22	-41.537	0	0.000E+00	354.71	0	0.000E+00	3	x	

10	25									*
10	26									*
10	27									*
10	29	-373.7	0	0.000E+00	-397.5	0	0.000E+00	2		
10	30	-742.7	0	0.000E+00	-214.8	0	0.000E+00	2		
10	31									*
10	32	114.3	0	0.000E+00	293.5	0	0.000E+00	2		
10	34	236.6	0	0.000E+00	-93.066	0	0.000E+00	3		
10	36									*
10	37	-43.56	0	0.000E+00	945.6	0	0.000E+00	2		
10	39	2371	0	0.000E+00	-225.3	0	0.000E+00	2		
10	41									*
10	42	716.7	-1.516	0.000E+00	1161	-0.5724	0.000E+00	3		
10	43									*
10	45									*
10	53									*
10	54									*
10	60									*
10	74									*
10	77									*
10	88									*
10	94									*
11	12	342.4	0	0.000E+00	-251.7	0	0.000E+00	2		
11	13	195.3	-9.75	4.051E-02	824.2	-6.009	8.271E-03	2		
11	14									*
11	15	3168	-24.07	4.303E-02	3329	-13.78	1.193E-02	2		
11	16	152.8	-1.099	0.000E+00	160.8	0.8719	0.000E+00	2		
11	17	-1355	7.683	-1.012E-02	3499	-22.96	3.543E-02	2	x	
11	18	87.6005	1.4109	0.000E+00	45.3095	-1.4281	0.000E+00	3	x	
11	19	-193.23	0.4301	0.000E+00	139.55	-0.4367	0.000E+00	2		
11	20	62.031	1.0567	0.000E+00	59.594	-0.712	0.000E+00	2		
11	21	-49.339	0	0.000E+00	48.852	0	0.000E+00	2	x	
11	22	168.17	-1.0536	0.000E+00	-461.35	1.8569	0.000E+00	2		
11	23									*
11	24	-5.71	-0.2724	0.000E+00	223.4	0.1237	0.000E+00	2		
11	25	3351	-14.54	0.000E+00	-788.6	1.693	0.000E+00	2	x	
11	26	9.222	-0.3292	0.000E+00	-50.36	0.0245	0.000E+00	2		
11	27									*
11	28	861.1	-1.693	0.000E+00	280	-0.9491	0.000E+00	2		
11	29									*
11	30	80.69	0	0.000E+00	-136.3	0	0.000E+00	2		
11	31	-72.07	0	0.000E+00	69.25	0	0.000E+00	2		
11	32	82.96	0	0.000E+00	11.62	0	0.000E+00	2		
11	33	-386.3	1.892	0.000E+00	248.3	-1.198	0.000E+00	2		
11	34									*
11	35	296.8	-1.264	0.000E+00	-337.1	0.8843	0.000E+00	2		
11	36	-92.12	0.9031	0.000E+00	503.5	-1.792	0.000E+00	2		
11	37	-201.4	0.5487	0.000E+00	-320	1.052	0.000E+00	2		
11	38									*
11	39	96.7704	0.4827	0.000E+00	16.6938	-0.5966	0.000E+00	4		
11	40									*
11	41	-338.8	1.837	0.000E+00	3.924	-1.174	0.000E+00	2		
11	42	374.1	-1.976	1.682E-03	460.8	-0.0621	4.100E-05	3		
11	43	-28.231	0	0.000E+00	36.948	0	0.000E+00	2	x	
11	44	745.4	0	0.000E+00	-447.04	0	0.000E+00	2		
11	45	-579.11	0.9455	0.000E+00	966.35	-2.1861	0.000E+00	2	x	
11	46									*
11	47	758.1276	-0.2593	0.000E+00	32.7103	-0.8641	0.000E+00	4		
11	48	611.4677	-2.4783	0.000E+00	-1031.7838	3.9906	0.000E+00	4		
11	49	2973.6	-5.4555	0.00E+00	81.638	-1.3111	0.00E+00	9		*
11	50									*
11	51									*
11	52									*
11	53									*
11	54									*
11	55									*
11	56	-1336.20	6.7742	-8.20E-03	1915.20	-9.9994	1.26E-02	11		
11	57									*
11	58									*
11	59									*
11	60									*
11	61	-1366.59	5.9067	-7.33E-03	2622.04	-11.7013	1.35E-02	11		
11	62									*
11	63									*
11	65									*
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11	88									*
11	94									*
11	101									*
11	103									*
11	105									*
11	106									*
12	13									*
12	18	-9.2978	0	0.000E+00	-123.7294	0	0.000E+00	3	x	
12	19	92.21	0	0.000E+00	-33.64	0	0.000E+00	2		
12	20									*
12	22									*
12	24	-142.2	0.572	0.000E+00	465.8	-0.773	0.000E+00	2		
12	25	1894	0	0.000E+00	18.79	0	0.000E+00	2	x	
12	26									*
12	27									*
12	29	161.8	0	0.000E+00	13.97	0	0.000E+00	2		
12	31									*
12	32									*
12	33									*
12	34									*
12	35									*
12	37	745.4	-0.622	0.000E+00	-479.1	0.8031	0.000E+00	2		
12	38									*
12	39	580.3	0	0.000E+00	-285.5	0	0.000E+00	2		
12	41									*
12	42	227.6	-0.7762	0.000E+00	509	-0.2248	0.000E+00	3		
12	43									*
12	44	489.15	0	0.000E+00	-441.01	0	0.000E+00	2		
12	45	260.64	-1.2868	0.000E+00	-597.09	2.5295	0.000E+00	2		
12	46									*
12	48									*
12	50									*
12	52									*
12	53									*
12	55									*
12	56									*
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12	74									*
12	75									*
12	76									*
12	77									*
12	83									*
13	14									*
13	15									*
13	16									*
13	17									*
13	18	-199.9429	-6.9867	1.928E-02	-430.4893	-0.728	3.991E-03	3	x	
13	19	1987	-8.022	1.065E-02	-588.8	1.481	-2.636E-03	2		
13	20	521.48	0	0.000E+00	-310.82	0	0.000E+00	2		
13	21	-208.6	-0.2571	2.418E-03	872	-2.939	1.269E-03	2		
13	22	492.9	-6.475	1.806E-02	215.3	-2.482	2.745E-03	2		
13	23	-607.35	2.3467	0.000E+00	97.128	-0.6439	0.000E+00	2		
13	24	-425.4	0.9514	0.000E+00	641.2	-1.486	0.000E+00	2		
13	25	974	-1.368	-1.983E-02	381.1	-5.682	1.675E-02	2	x	
13	26	-305.1	0.7063	0.000E+00	319.6	-1.368	0.000E+00	2		
13	27									*
13	28	35.02	1.702	0.000E+00	198.5	-1.434	0.000E+00	2		
13	29	102.6	0	0.000E+00	-210.1	0	0.000E+00	2	x	
13	30	513.7	0	0.000E+00	-299.6	0	0.000E+00	2		
13	31									*
13	32	-104.8	0	0.000E+00	464	0	0.000E+00	2		
13	33									*
13	34	-137.87	0	0.000E+00	169.27	0	0.000E+00	3		
13	35									*
13	37	-422.7	2.23	0.000E+00	-326.4	0.24	0.000E+00	2		
13	38	155.7	-1.578	0.000E+00	-528.8	2.822	0.000E+00	2		
13	39									*

13	40									*
13	41									*
13	42	397	-1.379	0.000E+00	-214.1	1.134	0.000E+00	3		
13	43	-124.33	-0.294	0.000E+00	561.14	-0.7058	0.000E+00	2	x	
13	44	-454.92	0	0.000E+00	310.75	0	0.000E+00	2		
13	45	-515.93	0.3835	0.000E+00	1368	-2.6254	0.000E+00	2		
13	46									*
13	48	1321.5245	0	0.000E+00	-361.2499	0	0.000E+00	4		
13	49	3858.1	-9.278	7.00E-06	-224.78	-0.41061	-4.00E-06	9		
13	50									*
13	51									*
13	52									*
13	53									*
13	54									*
13	55									*
13	56	-209.21	-0.4704	6.92E-03	1163.91	-7.1332	8.39E-03	11		
13	57									*
13	59									*
13	60									*
13	61									*
13	62									*
13	63									*
13	65									*
13	66									*
13	67									*
13	68									*
13	69									*
13	70									*
13	71									*
13	74									*
13	77									*
13	78									*
13	79									*
13	80									*
13	81									*
13	93	-584.73	0	0.000E+00	178.50	0	0.000E+00	11		
13	96									*
13	97									*
13	102									*
13	105									*
13	106									*
14	15	1517	-12.72	2.557E-02	-1074	9	-1.795E-02	2		
14	16	-472.4	-0.2051	1.058E-02	836.6	-5.208	4.801E-03	2		
14	17									*
14	19	-412.38	-0.4909	6.255E-03	2412.2	-10.495	9.741E-03	2	x	
14	21									*
14	24	-65.76	-0.3148	0.000E+00	333.9	-0.1415	0.000E+00	2		
14	25	2553	-11.9	0.000E+00	3873	-9.315	0.000E+00	2	x	
14	29	-205.1	0	0.000E+00	244.4	0	0.000E+00	2		
14	31									*
14	35									*
14	39	162.14	0	0.000E+00	-112.76	0	0.000E+00	2		
14	42	124.3	-1.147	0.000E+00	621.9	0.258	0.000E+00	3		
14	43	-143.07			182.58			2	x	
14	46									*
14	47	413.1067	0	0.000E+00	-293.9284	0	0.000E+00	4		
14	56	190.88	0	0.000E+00	14.91	0	0.000E+00	11		
14	60									*
14	78									*
14	79									*
14	80									*
14	81									*
14	84									*
14	85									*
15	16	402.6	-1.614	0.000E+00	-639.9	2.561	0.000E+00	2		
15	17									*
15	18									*
15	19	242.2	0	0.000E+00	-131.9	0	0.000E+00	2		
15	24	-3.28	0	0.000E+00	43.83	0	0.000E+00	2		
15	25	3888	-16.26	0.000E+00	-868.8	2.948	0.000E+00	2	x	
15	31									*
15	38	-330.2	0	0.000E+00	904.1	0	0.000E+00	2		
15	39	-88.4923	0	0.000E+00	-230.554	0	0.000E+00	4		
15	42	-131.9	-0.0074	0.000E+00	1248	-2.79	0.000E+00	3		
15	43	-186.98	0	0.000E+00	295.07	0	0.000E+00	2	x	
15	45									*
15	46									*
15	47	444.6679	0.8351	0.000E+00	-196.2303	-0.0511	0.000E+00	4		
15	56	1178.79	-9.9991	2.08E-02	1667.89	-7.587	8.01E-03	11		
15	60									*

15	78									*
15	79									*
16	17									*
16	19									*
16	21									*
16	22	-473	0.8883	0.000E+00	406.8	-1.524	0.000E+00	2		
16	24	215.9	-1.399	0.000E+00	-825.9	3.15	0.000E+00	2		
16	25	1622	-4.812	-1.856E-02	-94.87	-9.612	3.722E-02	2	x	
16	28									*
16	31									*
16	38	-7.532	-0.8077	0.000E+00	35.16	0.09723	0.000E+00	2		*
16	39	965	0	0.000E+00	-311.9	0	0.000E+00	2		
16	41									*
16	42	324.15	-1.4264	0.000E+00	-198.32	1.452	0.000E+00	11		
16	43									*
16	44									*
16	45	-420.24	0.2632	0.000E+00	-1035.8	3.078	0.000E+00	2		
16	47	-729.5023	6.2811	0.000E+00	-66.6079	-0.696	0.000E+00	4		
16	48	2111.2449	0	0.000E+00	-235.6095	0	0.000E+00	4		
16	56	2662.02	-13.9855	1.77E-02	-1780.41	5.7197	-1.65E-03	11		
16	60									*
16	78									*
16	79									*
17	18	74.285	14.613	-2.830E-02	-558.39	1.2436	-7.000E-04	2	x	
17	19	393.9	-4.703	9.003E-03	2987	-9.336	7.147E-03	2	x	
17	20									*
17	21	582.1	-2.33	3.770E-04	-338	3.372	-3.676E-03	2	x	
17	24	3986	-16.15	1.635E-02	2626	-10.59	1.466E-02	2	x	
17	25	3709.2	0	0.000E+00	1583.8	0	0.000E+00	2	x	
17	27	3770	1.686	0.000E+00	1.655	-1.164	0.000E+00	2	x	
17	31	1268	-3.042	0.000E+00	-818.8	3.229	0.000E+00	2	x	
17	39	-391.9	0	0.000E+00	650.7	0	0.000E+00	2	x	
17	42	1371	-3.323	0.000E+00	1091	-0.2657	0.000E+00	2	x	
17	43									*
17	45									*
17	46									*
17	47	1271.4183	-6.4373	6.451E-03	-2476.1787	10.9894	-9.617E-03	4		
17	62									*
17	63									*
17	75									*
17	76									*
17	78									*
17	92									*
18	19	746.1208	-2.1937	0.000E+00	-2307.7947	5.8186	0.000E+00	3	x	
18	20	-451.49	-0.4031	0.000E+00	-2617.7	4.614	0.000E+00	3	x	
18	21	-67.106	-0.4933	0.000E+00	-1592.8499	2.8397	0.000E+00	3	x	
18	22	-978.246	2.1884	0.000E+00	946.7893	-4.9886	0.000E+00	3	x	
18	23									*
18	24	229.6591	-1.5005	0.000E+00	-2110.9729	6.3625	0.000E+00	3	x	
18	25								x	*
18	27									*
18	33	-713.65	1.9191	0.000E+00	-763.19	0.603	0.000E+00	3	x	
18	35									*
18	37									*
18	38	197.9454	-0.3316	-4.000E-04	-1052.5208	1.6854	2.700E-03	3	x	
18	39									*
18	40									*
18	42	268.23	-1.4137	0.000E+00	-5894.1	13.088	0.000E+00	11		
18	43	-250.2521	0.3811	0.000E+00	-1269.7316	2.6335	0.000E+00	3	x	
18	44									*
18	45	-516.3073	1.6943	0.000E+00	-1646.7843	2.7237	0.000E+00	3	x	
18	47	489.9347	-0.5591	-1.020E-03	-2250.6443	5.4638	-1.500E-04	4	x	
18	50									*
18	52	-674.0007	1.8854	0.000E+00	4998.5674	1.1962	0.000E+00	3	x	
18	54									*
18	56									*
18	61									*
18	77									*
18	78									*
18	80									*
18	81									*
18	82									*
18	86									*
18	100									*
19	20									*
19	21	176.5	-1.237	0.000E+00	-368.7	1.992	0.000E+00	2	x	
19	22	-78.96	0	0.000E+00	14.76	0	0.000E+00	2		
19	23									*
19	24	65.82	-0.6265	0.000E+00	357.6	0.7676	0.000E+00	2		
19	25	1283	3.361	-2.988E-02	2331	-9.238	1.158E-02	2	x	

19	26	117.53	-0.4469	0.000E+00	-128.21	0.5035	0.000E+00	2	x	
19	28	468.8	0	0.000E+00	434.8	0	0.000E+00	2		
19	29	-18.8	-0.3652	0.000E+00	41.54	0.646	0.000E+00	2		
19	31	506.6	-1.263	0.000E+00	11.72	0.7004	0.000E+00	2		
19	33	-211.2	0	0.000E+00	362.6	0	0.000E+00	2		
19	34	11.65	-1.229	0.000E+00	-1428	7.698	0.000E+00	2		
19	35									*
19	36	267.1	0	0.000E+00	-144.7	0	0.000E+00	2	x	
19	37	61.96	-0.4161	0.000E+00	-19.1	1.195	0.000E+00	2		
19	38									*
19	39	57.0813	-0.7417	0.000E+00	-160.4825	1.0644	0.000E+00	4		
19	41	-75.67	0	0.000E+00	26.8	0	0.000E+00	2		
19	42	256.2	-1.526	1.118E-03	1336	-3.395	4.586E-03	3		
19	43	-28.653	-0.4815	0.000E+00	56.754	0.8978	0.000E+00	2		
19	44									*
19	45	237.42	-1.2928	0.000E+00	-642.44	2.8574	0.000E+00	2	x	
19	47									*
19	48									*
19	49	297.65	-0.66206	0.00E+00	-116.79	0.54754	0.00E+00	9		
19	48									*
19	56	-50.84	-0.02529	0.000E+00	180.81	-0.0642	0.000E+00	11		
19	57									*
19	60									*
19	78									*
19	81									*
19	84									*
19	85									*
19	86									*
19	88									*
19	97									*
19	101									*
20	21	27.618	0	0.000E+00	702.4	0	0.000E+00	2		
20	22	94.606	0	0.000E+00	425.97	0	0.000E+00	2		
20	24	701.95	-1.7576	0.000E+00	213.34	2.1861	0.000E+00	2		
20	25	-1398.7	0	0.000E+00	1000	0	0.000E+00	2	x	
20	26									*
20	28									*
20	30									*
20	31									*
20	32	146.06	0	0.000E+00	780.71	0	0.000E+00	2		
20	33	-18.328	0	0.000E+00	753.21	0	0.000E+00	2		
20	35									*
20	37	-447.95	1.5141	0.000E+00	283.64	1.5491	0.000E+00	2		
20	39	-421.21	0	0.000E+00	93.773	0	0.000E+00	2		
20	41									*
20	42	1060	-2.822	0.000E+00	578.3	1.493	0.000E+00	3		
20	43	720.45	-1.5187	0.000E+00	-140.77	0.309	0.000E+00	2		
20	44	-65.631	0	0.000E+00	-14.016	0	0.000E+00	2	x	
20	45	508.72	-1.4005	0.000E+00	-386.93	2.3961	0.000E+00	2		
20	46									*
20	47	-369.3104	0	0.000E+00	-0.2928	0	0.000E+00	4		
20	48	-400.859	0	0.000E+00	-244.6923	0	0.000E+00	4		
20	50									*
20	53									*
20	54									*
20	55									*
20	60									*
20	61									*
20	62									*
20	63									*
20	64									*
20	77									*
20	80									*
20	81									*
20	83									*
20	86									*
20	88									*
20	101									*
20	105									*
20	106									*
21	22	70.79	0	0.000E+00	-66.21	0	0.000E+00	2		
21	23	592.4	-4.2459	6.905E-03	603.29	-3.977	6.248E-03	2		
21	24	16.34	0.0729	0.000E+00	95.05	-0.2348	0.000E+00	2		
21	25	3985	-15.7	0.000E+00	15.62	-1.099	0.000E+00	2	x	
21	26	24.44	-0.4713	0.000E+00	142.1	-0.153	0.000E+00	2		
21	27	1248	-2.04	0.000E+00	1295	-4.224	0.000E+00	2		
21	28	295.9	0	0.000E+00	-137.7	0	0.000E+00	2		
21	30	666	0	0.000E+00	-390.6	0	0.000E+00	2		
21	31									*
21	32									*

21	33	128.8	-0.2077	0.000E+00	-92.68	-0.0131	0.000E+00	2		
21	34									*
21	35									*
21	36									*
21	37	280	0	0.000E+00	-207.3	0	0.000E+00	2		
21	38									*
21	39	-70.4491	0	0.000E+00	-59.2862	0	0.000E+00	4		
21	40									*
21	41									*
21	42	-31.42	-0.248	0.000E+00	370.6	-0.322	0.000E+00	3		
21	43	-325.77	2.0412	0.000E+00	70.075	-1.149	0.000E+00	2		
21	44	530.3	0	0.000E+00	17.052	0	0.000E+00	2		
21	45	207.12	-0.4396	0.000E+00	-175.29	0.3275	0.000E+00	2		
21	46									*
21	48									*
21	49	955.83	-1.0001	0.00E+00	-151.04	-0.45882	0.00E+00	9		
21	51									*
21	53									*
21	55									*
21	56	842.49	-1.8434	0.000E+00	-313.2	0.4139	0.000E+00	11		
21	60									*
21	64									*
21	65									*
21	66									*
21	67									*
21	70									*
21	74									*
21	77									*
21	78									*
21	83									*
21	86									*
21	92									*
21	102									*
21	103									*
21	104									*
21	106									*
22	23	187.43	-3.446	6.718E-03	1468.9	-5	3.701E-03	2	x	
22	24	46.29	-0.2115	0.000E+00	46.03	0.0539	0.000E+00	2		
22	25	3353	-14.2	0.000E+00	368.6	-1.748	0.000E+00	2	x	
22	26	822.4	-2.05	0.000E+00	-423.1	0.8154	0.000E+00	2		
22	27									*
22	28									*
22	30	-174.6	0	0.000E+00	106.3	0	0.000E+00	2		
22	32	132.7	-0.1183	0.000E+00	-23.81	-0.092	0.000E+00	2		
22	33	-139.6	1.022	0.000E+00	96.4	-0.776	0.000E+00	2		
22	34									*
22	35	-178.3	0.7426	0.000E+00	-39.45	-0.8556	0.000E+00	2		
22	36									*
22	37	160.7	0	0.000E+00	-135.9	0	0.000E+00	2		
22	39	-147.6446	0	0.000E+00	75.4469	0	0.000E+00	4		
22	40									*
22	42	10.7	-0.2702	0.000E+00	224.4	-0.1399	0.000E+00	3		
22	43	108.83	-0.8606	0.000E+00	-358.57	1.3307	0.000E+00	2		
22	45	7.3664	0.4046	0.000E+00	-1.6641	-0.3783	0.000E+00	2		
22	46									*
22	48	102.8047	-0.0879	0.000E+00	-446.861	0.4276	0.000E+00	4		
22	49	-1017.3	3.0909	0.00E+00	894.51	-2.9316	0.00E+00	9		
22	50									*
22	55									*
22	56	262.14	0	0.000E+00	-229.08	0	0.000E+00	11		
22	60									*
22	62									*
22	65									*
22	66									*
22	68									*
22	69									*
22	74									*
22	75									*
22	77	1588.2000	-4.7160	0.0000	-708.2500	1.5395	0.0000			*
22	80									*
22	81									*
22	86									*
22	95									*
22	101									*
22	102									*
22	103									*
22	104									*
23	24	-323.17	1.1973	0.000E+00	350.92	-1.3456	0.000E+00	2		
23	25								x	*
23	27									*

23	33	599.82	0	0.000E+00	-364.76	0	0.000E+00	2		
23	34									*
23	35									*
23	37	325.81	0	0.000E+00	-199.87	0	0.000E+00	2		
23	40									*
23	42	289.08	-0.5852	0.000E+00	-69.601	-0.4274	0.000E+00	11		
23	43									
23	46									*
23	55									*
23	56	401.70	0	0.000E+00	157.63	0	0.000E+00	11		
23	67									*
23	70									*
23	103									*
23	104									*
24	25	-131.8	9.802	-3.582E-02	972.1	-6.82	9.219E-03	2	x	
24	26	441.5	-0.5353	0.000E+00	-65.74	0.0967	0.000E+00	2		
24	27	3286	0	0.000E+00	167.5	0	0.000E+00	2		
24	28	9.362	1.033	0.000E+00	52.01	-0.9095	0.000E+00	2		
24	30	750.2	0.8165	0.000E+00	100.5	-0.8269	0.000E+00	2		
24	32	49.51	0.6829	0.000E+00	186.4	-0.7294	0.000E+00	2		
24	33	203.2	-1.328	0.000E+00	-1360	7.402	0.000E+00	2		
24	35	325.2	0.4405	0.000E+00	-60.89	-0.6321	0.000E+00	2		
24	36	902	0	0.000E+00	-194.9	0	0.000E+00	2		
24	37	220.6	0.3756	0.000E+00	-134.4	-0.3226	0.000E+00	2		
24	38	197.4	-0.4858	0.000E+00	-98.98	-0.0213	0.000E+00	2		
24	39	512.7	0.027	0.000E+00	-168.4	-0.123	0.000E+00	2		
24	40									*
24	42	-37.183	-0.0478	0.000E+00	60.78	0.0243	0.000E+00	2		
24	43	190.45	0.0127	0.000E+00	-131.87	-0.0142	0.000E+00	2		
24	45	22.779	0.0421	0.000E+00	14.947	-0.1109	0.000E+00	2		
24	46									*
24	49	516.97	0.19471	1.86E-03	-198.68	0.43508	-1.27E-03	9		
24	51									*
24	52	1366.3114	-3.8385	0.000E+00	-580.4588	1.1653	0.000E+00	3	x	
24	53									*
24	54									*
24	55									*
24	56	120.59	1.2816	0.000E+00	261.15	-0.8815	0.000E+00	8		
24	60									*
24	61									*
24	66									*
24	69									*
24	70									*
24	72									*
24	74									*
24	76									*
24	77									*
24	81									*
24	82									*
24	83									*
24	85									*
24	86									*
24	87									*
24	97									*
25	26	3986	25	0.000E+00	3638	-14.25	0.000E+00	2	x	
25	27	-184.4995	2.2806	0.000E+00	2926.0183	-1.8141	0.000E+00	4	x	
25	30								x	*
25	33	-69.88	0	0.000E+00	981.5	0	0.000E+00	2	x	
25	35								x	*
25	36									*
25	37								x	*
25	38								x	*
25	39	-12.7054	-0.4758	0.000E+00	472.4949	-0.5503	0.000E+00	4	x	
25	40								x	*
25	42	207.16	-1.2206	0.000E+00	223.78	-0.5826	0.000E+00	11		
25	43	96.855	-1.2993	0.000E+00	2991.8999	-9.3959	0.000E+00	2	x	
25	45	-27.161	0.611	0.000E+00	4235.2998	-16.954	0.000E+00	2	x	
25	46								x	*
25	49	593.2	-0.7904	0.00E+00	88.322	0.1605	0.00E+00	9	x	
25	50								x	*
25	51								x	*
25	55								x	*
25	56									*
25	57									*
25	59									*
25	60								x	*
25	83									*
25	86									*
25	92									*
25	96									*

25	105									*
25	106									*
26	27	85.6	0	0.000E+00	986	0	0.000E+00	2	x	
26	28	68.87	3.217	0.000E+00	655.7	-2.203	0.000E+00	2		
26	31									*
26	32	643.8	-0.7376	0.000E+00	17.81	-0.2245	0.000E+00	2		
26	33	9.258	-0.1079	0.000E+00	121.4	0.054	0.000E+00	2		
26	34	-70.24	0	0.000E+00	132.2	0	0.000E+00	2		
26	37	159	0	0.000E+00	108.4	0	0.000E+00	2		
26	39	606.9	0	0.000E+00	-340.9	0	0.000E+00	2		
26	42	119.3	-0.5691	0.000E+00	522.9	-0.2485	0.000E+00	3		
26	43	53.75	0	0.000E+00	-47.089	0	0.000E+00	2		
26	52	324.6235	-1.1828	0.000E+00	11.4423	0.7866	0.000E+00	3	x	
26	54									*
26	60									*
26	67									*
26	70									*
27	32									*
27	33	505.4	0	0.000E+00	81.445	0	0.000E+00	2	x	
27	35									*
27	36									*
27	37									*
27	38									*
27	39									*
27	42	2004	-4.5	0.000E+00	2600	-4.8	0.000E+00	3		
27	45									*
27	76									*
27	83									*
27	86									*
27	102									*
27	105									*
27	106									*
28	32	212.4	-0.3692	0.000E+00	200.6	-0.228	0.000E+00	2		
28	33									*
28	37	-93.31	-0.1286	0.000E+00	319.4	0.0342	0.000E+00	2		
28	42	29.45	-0.9194	0.000E+00	92.4	1.191	0.000E+00	2		
28	43	166.56	-1.0407	0.000E+00	1.0902	1.5927	0.000E+00	2		
28	45	89.744	-1.0122	0.000E+00	40.987	1.1526	0.000E+00	2		
28	54									*
28	61									*
28	69									*
28	71									*
28	74									*
28	86									*
29	35	467.1	0	0.000E+00	-360	0	0.000E+00	2		
29	39	356.6	0	0.000E+00	-247.6	0	0.000E+00	2		
29	42	-7.4648	-0.4151	0.000E+00	439.7321	-0.2619	0.000E+00	4		
29	46									*
29	61									*
29	93									
30	37	-277.6	0	0.000E+00	1168	0	0.000E+00	2		*
30	42	96.59	-0.7691	0.000E+00	846.7	0.2545	0.000E+00	2		
30	44	778.78	0	0.000E+00	-384.29	0	0.000E+00	2		
30	45									*
30	55									*
30	60									*
30	77									*
30	86									
31	35	-228.4	0	0.000E+00	-47.81	0	0.000E+00	2		
31	39	373.8	0	0.000E+00	-231.6	0	0.000E+00	2		
31	42									*
31	43									*
31	46									*
31	47	-210.3418	0.9103	0.000E+00	106.793	-0.9537	0.000E+00	4		
31	48									*
31	53									*
31	55									*
31	60									*
31	63									*
31	75									*
31	76									*
31	83									*
31	94									*
31	101									*
32	33	-536.2	1.995	0.000E+00	558	-1.924	0.000E+00	2		
32	38									*
32	40									*
32	42									*
32	45	-47.772	-0.0092	0.000E+00	92.429	0.1744	0.000E+00	2		
32	54									*

32	65								*
32	68								*
32	95								*
32	105								*
33	35	-83.7	0.1436	0.000E+00	-116.7	-0.0677	0.000E+00	2	
33	37								*
33	38								*
33	39								*
33	40								*
33	41	-378.1	2.56	0.000E+00	13.78	-0.936	0.000E+00	2	
33	42	-122.5	0.0913	0.000E+00	476.9	-0.61	0.000E+00	3	
33	43	-186.4	0	0.000E+00	265.42	0	0.000E+00	2	
33	45								*
33	56	2459.00	0	0.000E+00	-271.23	0	0.000E+00	11	
33	65								*
33	66								*
33	67								*
33	68								*
33	70								*
33	77								*
33	78								*
33	80								*
33	83								*
33	86								*
33	105								*
34	35								*
34	37								*
34	39	1025	0	0.000E+00	-416.5	0	0.000E+00	2	
34	42								*
34	43								*
34	46								*
34	55								*
34	56								*
34	85								*
34	87								*
34	94								*
35	37								*
35	38								*
35	39	-133.3468	0.1022	0.000E+00	221.7393	-0.5021	0.000E+00	4	
35	42								*
35	43								*
35	45	-322.46	-0.0208	0.000E+00	67.069	0.2396	0.000E+00	2	
35	48								*
35	49	-3.4471	0	0.00E+00	-72.169	0	0.00E+00	9	
35	53								*
35	56								*
35	60								*
35	61								*
35	63								*
35	82								*
35	83								*
35	86								*
35	97								*
36	37	-74.88	0	0.000E+00	1004	0	0.000E+00	2	
36	39	-110.3414	0	0.000E+00	97.3572	0	0.000E+00	4	*
36	41								*
36	42								*
36	86								*
36	88								*
37	39	967.7403	0	0.000E+00	-306.217	0	0.000E+00	4	
37	40								*
37	41	-211.1	0	0.000E+00	516.5	0	0.000E+00	2	
37	42	-24.82	-0.5324	0.000E+00	81.56	0.7293	0.000E+00	3	
37	43	321.62	-4.9963	1.387E-02	713.9	-2.7759	9.172E-04	2	
37	45	185.82	0	0.000E+00	-139	0	0.000E+00	2	*
37	46								*
37	47								*
37	53								*
37	55								*
37	60								*
37	61								*
37	62								*
37	65								*
37	68								*
37	74								*
37	82								*
37	86								*
37	95								*
37	103								*
37	106								*

38	39	190.0634	0	0.000E+00	-229.9709	0	0.000E+00	4		
38	40	-57.38	0	0.000E+00	110.4	0	0.000E+00	2	*	
38	42	112.7	-0.4103	0.000E+00	21.04	-0.1288	0.000E+00	3		
38	43	-22.572	0	0.000E+00	-7.56	0	0.000E+00	2		*
38	46									*
38	63									*
38	67									*
38	70									*
38	73									*
38	75									*
39	40									*
39	41									
39	42	141.2	-0.8783	0.000E+00	666.5	-0.1555	0.000E+00	2		
39	43	53.871	-0.6775	0.000E+00	-54.26	1.0612	0.000E+00	2		
39	44	-310.13	0	0.000E+00	-367.48	0	0.000E+00	2		*
39	45									*
39	48									*
39	49	-18.377	-0.45026	0.00E+00	-2.2758	0.60113	0.00E+00	9		*
39	52									*
39	57									*
39	59									*
39	60									*
39	65									*
39	67									*
39	68									*
39	69									*
39	70									*
39	71									*
39	76									*
39	83									*
39	86									*
39	92									*
39	103									*
40	41									*
40	42	165.6	0	0.000E+00	-109	0	0.000E+00	3		*
40	43									*
40	45									*
40	46									*
40	48									*
40	65									*
40	66									*
40	67									*
40	68									*
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40	72									*
40	73									*
40	77									*
40	78									*
40	94									*
40	95									*
40	96									*
40	104									*
41	42	683.3	6.321	0.000E+00	865	-2.89	0.000E+00	3		*
41	43									*
41	53									*
41	54									*
41	59									*
41	60									*
41	88									*
41	105									*
42	43	242.49	-0.0383	0.000E+00	20.834	-0.3472	0.000E+00	2		
42	45	183.79	-0.1518	0.000E+00	-61.922	-0.0594	0.000E+00	2		
42	46	298.46	-0.6823	0.000E+00	499.59	-0.8158	0.000E+00	3		
42	47	2187.6658	-1.057	0.000E+00	165.6552	-0.9151	0.000E+00	4		
42	48	499.1925	0.5131	0.000E+00	148.6643	-1.0328	0.000E+00	4		*
42	49	-49.685	3.8663	0.00E+00	159.18	-1.1148	0.00E+00	9		*
42	50	426.64	1.1963	0.000E+00	125.39	-1.181	0.000E+00	11		
42	52	313.43	0.0911	0.000E+00	-30.56	-0.2455	0.000E+00	11		
42	53	286.5434	0.1879	0.000E+00	58.4316	-0.5292	0.000E+00	6		*
42	54									
42	55	373.4893	0.0647	0.000E+00	75.4497	-0.6572	0.000E+00	7		
42	56	-581.16	4.1194	0.000E+00	660.47	-2.0132	0.000E+00	8		*
42	57									*
42	59									*
42	60									*
42	61	509.27	-0.5337	0.000E+00	-108.17	-0.1325	0.000E+00	11		
42	62									*
42	63									*

42	65								*
42	66								*
42	67								*
42	68								*
42	69								*
42	70								*
42	72								*
42	74								*
42	76								*
42	77								*
42	78								*
42	79								*
42	80								*
42	81								*
42	82								*
42	83								*
42	84	-883.9302	4.0287	0.000E+00	360.0808	-1.37211	0.000E+00	2	*
42	85	493.7747	-4.10779	0.0119213	986.9591	-2.85003	0.0018563	3	*
42	86								*
42	87	-501.6695	1.6261	0.00E+00	-935.6061	4.67403	0.00E+00	2	
42	88								*
42	89	-381.9636	-3.00577	0.0076136	2358.5131	-1.30922	0.0137839	3	
42	90	-1078.4954	3.65154	0.000E+00	1039.7528	-3.51543	0.000E+00	2	
42	91	1654.6423	-4.24837	0.000E+00	-171.2349	0.62135	0.000E+00	2	
42	92								*
42	93	246.35	-1.9006	0.000E+00	1120.89	-3.1028	0.000E+00	11	
42	94								*
42	96								*
42	97								*
42	98	449.5142	2.1727	0.0360498	4258.272	0.34026	-0.029654	3	
42	100								*
42	101								*
42	102								*
42	103								*
42	104								*
42	105								*
42	106								*
43	45	-523.96	0.4945	0.000E+00	1414	-2.8776	0.000E+00	2	*
43	46								*
43	52								*
43	53								*
43	54								*
43	55								
43	56	19.221	0.4413	0.000E+00	117.2081	-0.3946	0.000E+00	3	
43	60								*
43	63								*
43	65								*
43	67								*
43	68								*
43	70								*
43	74								*
43	76								*
43	77								*
43	78								*
43	79								*
43	80								*
43	81								*
43	82								*
43	84	-617.0431	2.40181	0.000E+00	-323.6833	-0.13058	0.000E+00	2	
43	85	826.0889	-0.93908	0.000E+00	-450.7675	0.94786	0.000E+00	2	
43	86								*
43	88								*
43	89	580.1045	-2.24427	-0.0080098	4927.307	-0.63511	-0.0351738	3	
43	90	277.9974	0.25973	0.000E+00	122.9861	-1.96464	0.000E+00	2	
43	91	-312.4461	1.126	0.000E+00	186.7351	-0.9786	0.000E+00	2	
43	94								*
43	97								*
43	101								*
43	102								*
43	106								*
44	45								*
45	46								*
45	50								*
45	51								*
45	53								*
45	55								*
45	56	184.79	0	0.000E+00	-76.14	0	0.000E+00	11	
45	60								*

45	61									*
45	62									*
45	63									*
45	68									*
45	74									*
45	75									*
45	77									*
45	78									*
45	83									*
45	86									*
45	94									*
46	52	-1423.6628	3.9162	0.000E+00	1738.5004	-3.9729	0.000E+00	3	x	*
46	60									*
46	61									*
46	63									*
46	65									*
46	68									*
46	76									*
46	77									*
46	86									*
46	88									*
46	92									*
46	93									*
47	48	-91.6532	-0.3411	0.000E+00	117.5666	0.7114	0.000E+00	4		*
47	49	-188.91	0	0.00E+00	308.23	0	0.00E+00	9		*
47	62									*
47	86									*
47	105									*
48	49									*
48	54									*
48	55									*
48	61									*
48	65									*
48	68									*
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48	83									*
48	103									*
49	54									*
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50	58									*
50	106									*
52	56									*
52	60									*
52	77									*
52	94									*
52	97									*
53	55									*
53	56	912.22	-2.0231	0.000E+00	-604.9	1.0475	0.000E+00	11		
53	60									*
53	63									*
53	64									*
53	83									*
54	59									*
55	56	-9.632	0.5554	-6.500E-05	125.53	0.2892	-9.69E-04	11		
55	59									*
55	60									*
55	63									*
55	86									*
55	97									*
56	61	200.04	0.1979	-1.600E-03	742.31	-4.1234	7.80E-03			
57	58									*
57	59									*
57	83									*
57	84									*
57	85									*
57	88									*
58	59									*
59	69									*
59	84									*
59	85									*
60	74									*
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60	86									*
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60	106									*
62	63									*
62	82									*
65	66									*

65	67								*
65	68								*
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65	73								*
65	77								*
65	95								*
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72	73								*
74	97								*
75	76								*
78	79								*
78	80								*
78	81								*
78	102								*
78	106								*
80	81								*
84	85	-103.0519	-1.42845	0.0094424	283.1673	-5.14586	0.0208006	3	
84	89	-107.3735	-3.90856	0.0005537	1094.8953	-4.10982	0.0000263	3	
84	91	133.3952	-2.64806	-0.0025991	-591.0368	0.45605	-0.0035024	3	
84	98	-113.0145	-1.48378	0.000E+00	-35.932	-1.52136	0.000E+00	2	
84	99	4542.127	0.85207	-0.0518203	-4116.3328	-1.71395	-0.0073933	3	
85	87	-1403.3082	-4.02583	0.0382461	-516.8431	-3.5941	0.0160959	3	
85	89	2324.007	-0.14769	0.000E+00	79.6934	-1.37708	0.000E+00	2	
85	90	855.7144	-1.14021	0.000E+00	-254.6989	-0.46519	0.000E+00	2	
86	103								*
87	91	-1138.0342	0.70013	0.000E+00	1824.8411	-4.26948	0.000E+00	2	
89	90	-1679.9771	4.40837	-0.0092342	4209.48	-0.75036	-0.0356672	3	
90	98								*