

## ДОПОЛНИТЕЛЬНЫЕ МАТЕРИАЛЫ

**Список линий колебательно-вращательных переходов полосы  $\nu_2$  молекулы  $D_2^{16}O$ .  
(номер линии, волновое число ( $cm^{-1}$ ), интенсивность (см/молекула), энергия нижнего состояния ( $cm^{-1}$ ), J', Ka', Kc', J'', Ka'', Kc'')**

1	255.2138	1.4415E-40	5784.6737	31	1	31	32	2	30
2	273.7846	5.6298E-45	6383.7635	33	2	32	33	3	30
3	283.7788	3.5893E-40	5460.6545	30	1	30	31	2	29
4	293.7064	1.1855E-41	6383.7635	32	2	31	33	3	30
5	312.5389	3.3964E-39	5145.3989	29	1	29	30	2	28
6	319.3528	1.2539E-40	6043.2502	31	2	30	32	3	29
7	341.4712	7.6440E-39	4838.9618	28	1	28	29	2	27
8	345.3314	3.1659E-40	5711.3111	30	2	29	31	3	28
9	346.8835	6.7963E-42	6631.0641	32	3	30	33	4	29
10	370.5560	6.5534E-38	4541.3956	27	1	27	28	2	26
11	371.1530	7.3667E-41	6282.9959	31	3	29	32	4	28
12	371.6145	3.0543E-39	5388.0082	29	2	28	30	3	27
13	392.7964	3.3928E-42	6860.1724	32	4	29	33	5	28
14	395.7646	1.9116E-40	5943.3531	30	3	28	31	4	27
15	398.1775	7.0394E-39	5073.4005	28	2	27	29	3	26
16	399.7764	1.3388E-37	4252.7504	26	1	26	27	2	25
17	416.3454	3.7958E-41	6504.5877	31	4	28	32	5	27
18	420.6989	1.9003E-39	5612.2002	29	3	27	30	4	26
19	424.9991	6.2031E-38	4767.5437	27	2	26	28	3	25
20	429.1175	1.0433E-36	3973.0740	25	1	25	26	2	24
21	435.2879	1.6294E-42	7070.9476	32	5	28	33	6	27
22	440.2315	1.0184E-40	6157.2558	30	4	27	31	5	26
23	445.9394	4.5233E-39	5289.5973	28	3	26	29	4	25
24	452.0605	1.3065E-37	4470.4909	26	2	25	27	3	24
25	458.5552	1.8904E-41	6707.6101	31	5	27	32	6	26
26	458.5668	1.9397E-36	3702.4120	24	1	24	25	2	23
27	464.4516	1.0485E-39	5818.2347	29	4	26	30	5	25
28	471.4728	4.1248E-38	4975.6001	27	3	25	28	4	24
29	477.7577	7.9520E-43	7261.2740	32	6	27	33	7	26
30	479.3456	1.0525E-36	4182.2918	25	2	24	26	3	23
31	482.2510	5.2674E-41	6352.2647	30	5	26	31	6	25
32	488.1131	1.3770E-35	3440.8080	23	1	23	24	2	22
33	489.0091	2.5887E-39	5487.5739	28	4	25	29	5	24
34	497.2895	9.0068E-38	4670.2591	26	3	24	27	4	23
35	501.7099	9.6386E-42	6889.1757	31	6	26	32	7	25
36	506.4173	5.6415E-40	6004.9252	29	5	25	30	6	24
37	506.8406	2.0273E-36	3902.9933	24	2	23	25	3	22
38	513.9167	2.4527E-38	5165.3109	27	4	24	28	5	23
39	517.7470	2.3337E-35	3188.3031	22	1	22	23	2	21
40	523.3845	7.5354E-37	4373.6190	25	3	23	26	4	22
41	526.5648	2.8135E-41	6524.4734	30	6	25	31	7	24
42	527.8717	4.1889E-43	7423.7267	32	7	26	33	8	25
43	531.1258	1.4521E-39	5665.5751	28	5	24	29	6	23
44	534.5345	1.4940E-35	3632.6386	23	2	22	24	3	21
45	539.2003	5.5740E-38	4851.4674	26	4	23	27	5	22
46	547.4602	1.5112E-34	2944.9367	21	1	21	22	2	20
47	549.7592	1.5097E-36	4085.7165	24	3	22	25	4	21

48	552.4712	3.1689E-40	6167.0543	29	6	24	30	7	23
49	555.0092	5.4185E-42	7040.2094	31	7	25	32	8	24
50	556.4858	1.4379E-38	5334.1599	27	5	23	28	6	22
51	562.4193	2.6331E-35	3371.2672	22	2	21	23	3	20
52	564.9058	4.8622E-37	4546.0432	25	4	22	26	5	21
53	576.4240	1.1591E-35	3806.5778	23	3	21	24	4	20
54	577.2461	2.3379E-34	2710.7454	20	1	20	21	2	19
55	579.6060	8.6258E-40	5816.7948	28	6	23	29	7	22
56	582.6502	3.4263E-38	5010.5806	26	5	22	27	6	21
57	583.7698	1.7038E-41	6663.4154	30	7	24	31	8	23
58	590.4912	1.7761E-34	3118.9135	21	2	20	22	3	19
59	591.1078	1.0178E-36	4249.0071	24	4	21	25	5	20
60	596.8424	2.7400E-43	7548.1838	32	8	25	33	9	24
61	603.4036	2.1316E-35	3536.2135	22	3	20	23	4	19
62	608.1091	9.1060E-39	5473.6233	27	6	22	28	7	21
63	609.8121	3.1475E-37	4694.6985	25	5	21	26	6	20
64	613.8591	2.0936E-40	6293.6359	29	7	23	30	8	22
65	617.9207	8.1846E-36	3960.2870	23	4	20	24	5	19
66	618.7520	2.8662E-34	2875.6047	20	2	19	21	3	18
67	626.2940	3.9609E-42	7154.2131	31	8	24	32	9	23
68	630.7439	1.5028E-34	3274.6114	21	3	19	22	4	18
69	637.9853	2.3400E-38	5137.6172	26	6	21	27	7	20
70	638.1737	6.9818E-37	4386.3686	24	5	20	25	6	19
71	644.8019	6.3084E-40	5931.4135	28	7	22	29	8	21
72	645.5063	1.5817E-35	3679.7627	22	4	19	23	5	18
73	655.9888	1.3992E-41	6768.8682	30	8	23	31	9	22
74	658.5225	2.5397E-34	3021.7263	20	3	18	21	4	17
75	667.8708	6.0050E-36	4085.5187	23	5	19	24	6	18
76	669.0077	2.3543E-37	4809.1042	25	6	20	26	7	19
77	671.0748	2.4738E-43	7653.5978	32	9	24	33	10	23
78	674.0666	1.1773E-34	3407.2750	21	4	18	22	5	17
79	675.9533	7.4716E-39	5577.5213	27	7	21	28	8	20
80	684.9345	1.9221E-40	6393.0849	29	8	22	30	9	21
81	693.4284	3.7834E-42	7259.6400	31	9	23	32	10	22
82	698.8551	1.2585E-35	3792.2728	22	5	18	23	6	17
83	700.6798	5.8222E-37	4488.7066	24	6	19	25	7	18
84	703.7979	2.1153E-34	3142.6745	20	4	17	21	5	16
85	706.5622	2.1690E-38	5232.8920	26	7	20	27	8	19
86	712.2794	6.3579E-40	6027.8034	28	8	21	29	9	20
87	714.6112	1.3655E-41	6876.9615	30	9	22	31	10	21
88	730.7900	1.0353E-34	3507.0637	21	5	17	22	6	16
89	732.2869	5.6720E-36	4177.2987	23	6	18	24	7	17
90	733.9778	1.8439E-40	6506.0199	29	9	21	30	10	20
91	735.8523	2.4515E-37	4898.5327	25	7	19	26	8	18
92	737.3644	8.0028E-39	5673.8882	27	8	20	28	9	19
93	751.2961	5.7898E-40	6147.0253	28	9	20	29	10	19
94	759.7859	2.3653E-38	5332.0301	26	8	19	27	9	18
95	763.0028	1.3556E-35	3875.9087	22	6	17	23	7	16
96	763.0384	2.1008E-34	3230.6548	20	5	16	21	6	15
97	763.1044	6.6618E-37	4575.4410	24	7	18	25	8	17
98	766.6835	6.7555E-39	5799.9775	27	9	19	28	10	18
99	779.4512	2.6000E-37	5002.6587	25	8	18	26	9	17
100	780.4736	1.8339E-38	5464.7528	26	9	18	27	10	17

101	785.4943	1.0087E-40	6488.4434	29	9	20	30	10	21
102	786.3631	1.2168E-39	6135.6195	28	9	19	29	10	20
103	786.9586	3.1805E-41	6851.0780	30	9	21	31	10	22
104	787.7502	6.8576E-36	4264.5062	23	7	17	24	8	16
105	789.4808	3.4663E-39	5792.9005	27	9	18	28	10	19
106	790.7552	2.4043E-42	7223.2067	31	9	22	32	10	23
107	792.0004	1.2591E-34	3585.6153	21	6	16	22	7	15
108	793.0772	1.8590E-37	5141.1902	25	9	17	26	10	16
109	794.6269	3.7158E-38	5460.5514	26	9	17	27	10	18
110	796.5769	6.6098E-37	4685.9154	24	8	17	25	9	16
111	796.8977	7.0332E-43	7604.4999	32	9	23	33	10	24
112	801.4694	9.3545E-38	5138.8035	25	9	16	26	10	17
113	804.8851	4.4114E-37	4829.1501	24	9	16	25	10	15
114	809.4829	1.6461E-35	3966.3911	22	7	16	23	8	15
115	809.6366	8.8501E-37	4827.8539	24	9	15	25	10	16
116	811.6035	6.2185E-36	4381.7162	23	8	16	24	9	15
117	816.2189	3.9308E-36	4528.5396	23	9	15	24	10	14
118	818.5532	2.7960E-34	3307.4484	20	6	15	21	7	14
119	818.7850	1.9683E-36	4527.8677	23	9	14	24	10	15
120	823.2354	1.4215E-37	4988.2618	25	8	17	26	9	18
121	823.4391	5.5464E-38	5309.9125	26	8	18	27	9	19
122	824.5832	1.5839E-38	5519.6857	32	0	32	33	0	33
123	824.5832	3.1678E-38	5519.6857	32	1	32	33	1	33
124	825.0640	1.3573E-35	4089.8644	22	8	15	23	9	14
125	825.1616	1.3843E-36	4677.0295	24	8	16	25	9	17
126	825.4455	5.1795E-39	5641.6555	27	8	19	28	9	20
127	827.3102	4.1525E-39	5830.2379	33	2	32	33	1	32
128	827.3102	8.3051E-39	5830.2379	33	1	32	33	2	32
129	827.3178	8.2346E-36	4239.3146	22	9	14	23	10	13
130	828.3405	1.4585E-34	3681.4358	21	7	15	22	8	14
131	828.6371	1.6480E-35	4238.9830	22	9	13	23	10	14
132	828.7528	1.8640E-39	5983.1483	28	8	20	29	9	21
133	829.2875	3.1789E-36	4376.5135	23	8	15	24	9	16
134	832.7995	1.6215E-40	6334.0458	29	8	21	30	9	22
135	835.4242	2.7423E-35	4086.9740	22	8	14	23	9	15
136	835.7548	1.4655E-37	5204.1326	31	1	31	32	0	32
137	835.7548	7.3276E-38	5204.1326	31	0	31	32	1	32
138	837.0871	5.4603E-41	6694.0121	30	8	22	31	9	23
139	837.4678	1.1041E-34	3810.1519	21	8	14	22	9	13
140	838.3455	6.4963E-35	3961.4722	21	9	13	22	10	12
141	838.5203	3.7604E-38	5505.7486	32	1	32	32	1	31
142	838.9893	3.2491E-35	3961.3170	21	9	12	22	10	13
143	841.3133	4.4461E-42	7062.7313	31	8	23	32	9	24
144	843.2125	5.5452E-35	3808.6295	21	8	13	22	9	14
145	844.6881	2.9700E-34	3409.6580	20	7	14	21	8	13
146	845.5010	1.4003E-42	7439.9139	32	8	24	33	9	25
147	846.9668	6.4833E-37	4897.4666	30	0	30	31	1	31
148	846.9668	3.2416E-37	4897.4666	30	1	30	31	0	31
149	847.2320	6.1604E-39	5830.2379	32	1	31	33	2	32
150	847.2320	3.0802E-39	5830.2379	32	2	31	33	1	32
151	849.2349	2.0991E-34	3542.4157	20	8	13	21	9	12
152	849.4053	1.2071E-34	3695.0402	20	9	12	21	10	11
153	849.7022	2.4145E-34	3694.9716	20	9	11	21	10	12

154	849.8142	1.6312E-37	5190.0732	31	1	31	31	2	30
155	849.8142	8.1560E-38	5190.0732	31	0	31	31	1	30
156	852.2463	4.2062E-34	3541.6569	20	8	12	21	9	13
157	856.8544	1.4950E-38	5505.7486	31	1	30	32	2	31
158	856.8544	2.9899E-38	5505.7486	31	2	30	32	1	31
159	858.2025	2.7418E-36	4599.7353	29	1	29	30	0	30
160	858.2025	1.3709E-36	4599.7353	29	0	29	30	1	30
161	860.5489	1.3923E-39	6117.3987	32	2	30	33	3	31
162	860.5489	6.9615E-40	6117.3987	32	3	30	33	2	31
163	861.1689	3.3887E-37	4883.2645	30	1	30	30	2	29
164	861.1689	6.7774E-37	4883.2645	30	0	30	30	1	29
165	861.2194	3.8067E-35	3949.2551	22	7	15	23	8	16
166	862.1715	4.4079E-36	4238.2735	23	7	16	24	8	17
167	862.2728	7.8626E-35	3670.9184	21	7	14	22	8	15
168	864.6181	1.9701E-36	4537.6139	24	7	17	25	8	18
169	865.6049	6.1539E-34	3403.5963	20	7	13	21	8	14
170	866.5693	1.3874E-37	5190.0732	30	1	29	31	2	30
171	866.5693	6.9371E-38	5190.0732	30	2	29	31	1	30
172	867.9186	2.1353E-37	4846.9078	25	7	18	26	8	19
173	869.2043	3.5513E-40	6383.7637	32	3	29	33	4	30
174	869.2053	1.7756E-40	6383.7635	32	4	29	33	3	30
175	869.4480	5.5405E-36	4310.9851	28	1	28	29	0	29
176	869.4480	1.1081E-35	4310.9851	28	0	28	29	1	29
177	869.4752	3.5222E-39	5784.6737	31	2	29	32	3	30
178	869.4753	7.0444E-39	5784.6737	31	3	29	32	2	30
179	871.3905	8.9926E-38	5165.7951	26	7	19	27	8	20
180	872.0415	3.5504E-42	7264.1728	32	7	25	33	8	26
181	872.5651	2.6964E-36	4585.3727	29	1	29	29	2	28
182	872.5651	1.3482E-36	4585.3727	29	0	29	29	1	28
183	872.8745	5.2654E-44	5784.6737	33	2	32	32	3	30
184	872.8745	1.0529E-43	5784.6737	33	1	32	32	2	30
185	874.3842	9.1773E-39	5493.9383	27	7	20	28	8	21
186	874.4919	1.0723E-41	6893.5606	31	7	24	32	8	25
187	875.1556	1.0006E-40	6631.0670	32	4	28	33	5	29
188	875.1713	5.0025E-41	6631.0641	32	5	28	33	4	29
189	876.3167	1.2390E-40	6531.0536	30	7	23	31	8	24
190	876.3582	3.0767E-37	4883.2645	29	1	28	30	2	29
191	876.3582	6.1534E-37	4883.2645	29	2	28	30	1	29
192	876.3685	3.6157E-39	5831.0332	28	7	21	29	8	22
193	877.0254	3.4208E-40	6176.8140	29	7	22	30	8	23
194	877.6812	9.3284E-40	6043.2505	31	3	28	32	4	29
195	877.6829	1.8657E-39	6043.2502	31	4	28	32	3	29
196	878.4631	3.4077E-38	5460.6546	30	2	28	31	3	29
197	878.4632	1.7038E-38	5460.6545	30	3	28	31	2	29
198	878.6736	3.0624E-41	6860.2100	32	5	27	33	6	28
199	878.8593	1.5298E-41	6860.1724	32	6	27	33	5	28
200	878.9546	1.0059E-41	7071.3243	32	6	26	33	7	27
201	880.6509	4.9881E-42	7070.9476	32	7	26	33	6	27
202	880.6913	2.1393E-35	4031.2603	27	0	27	28	1	28
203	880.6913	4.2786E-35	4031.2603	27	1	27	28	0	28
204	883.1434	2.7231E-40	6283.0007	31	4	27	32	5	28
205	883.1694	5.4455E-40	6282.9959	31	5	27	32	4	28
206	883.7521	1.6745E-42	7261.2740	32	8	25	33	7	26

207	883.8107	3.4836E-39	6117.3987	33	3	31	33	3	31
208	883.8107	1.7418E-39	6117.3987	33	2	31	33	2	31
209	883.9866	5.1350E-36	4296.4464	28	1	28	28	2	27
210	883.9867	1.0270E-35	4296.4464	28	0	28	28	1	27
211	885.0022	2.9321E-41	6708.2070	31	6	25	32	7	26
212	886.0002	8.6258E-41	6504.6493	31	5	26	32	6	27
213	886.1733	9.3712E-39	5711.3116	30	3	27	31	4	28
214	886.1762	4.6856E-39	5711.3111	30	4	27	31	3	28
215	886.2052	2.6076E-36	4585.3727	28	1	27	29	2	28
216	886.2052	1.3038E-36	4585.3727	28	2	27	29	1	28
217	886.2979	1.7228E-40	6504.5877	31	6	26	32	5	27
218	887.5000	7.8777E-38	5145.3990	29	2	27	30	3	28
219	887.5002	1.5755E-37	5145.3989	29	3	27	30	2	28
220	887.6086	5.7923E-41	6707.6101	31	7	25	32	6	26
221	890.9180	3.2656E-40	6353.2104	30	6	24	31	7	25
222	891.1197	2.8336E-39	5943.3613	30	4	26	31	5	27
223	891.1627	1.4165E-39	5943.3531	30	5	26	31	4	27
224	891.3313	1.9722E-41	6889.1757	31	8	24	32	7	25
225	891.9223	1.5779E-34	3760.6044	26	0	26	27	1	27
226	891.9223	7.8893E-35	3760.6044	26	1	26	27	0	27
227	892.7962	8.2275E-39	5784.6737	32	2	31	32	3	30
228	892.7963	1.6455E-38	5784.6737	32	1	31	32	2	30
229	893.3051	9.2859E-40	6157.3567	30	5	25	31	6	26
230	893.7825	4.6329E-40	6157.2558	30	6	25	31	5	26
231	894.4885	1.1634E-41	5145.3989	31	1	31	30	2	28
232	894.6732	2.2495E-38	5388.0091	29	3	26	30	4	27
233	894.6781	4.4989E-38	5388.0082	29	4	26	30	3	27
234	894.9205	1.6030E-40	6352.2647	30	7	24	31	6	25
235	895.4198	3.7438E-35	4016.5319	27	1	27	27	2	26
236	895.4198	1.8719E-35	4016.5319	27	0	27	27	1	26
237	896.0964	5.2773E-36	4296.4464	27	1	26	28	2	27
238	896.0964	1.0555E-35	4296.4464	27	2	26	28	1	27
239	896.4439	8.6785E-40	6006.4208	29	6	23	30	7	24
240	896.5745	6.9602E-37	4838.9619	28	2	26	29	3	27
241	896.5749	3.4801E-37	4838.9618	28	3	26	29	2	27
242	899.0711	7.0441E-39	5612.2141	29	4	25	30	5	26
243	899.1422	1.4084E-38	5612.2002	29	5	25	30	4	26
244	900.3836	5.4932E-41	6524.4734	30	8	23	31	7	24
245	900.5246	2.3869E-39	5818.4009	29	5	24	30	6	25
246	900.9365	8.1102E-34	3278.0558	20	6	14	21	7	15
247	900.9459	5.1056E-43	7423.7267	32	9	24	33	8	25
248	901.2907	4.7577E-39	5818.2347	29	6	24	30	5	25
249	901.3249	8.8002E-39	5667.9320	28	6	22	29	7	23
250	901.9485	7.4514E-38	5460.6546	31	2	30	31	3	29
251	901.9485	3.7257E-38	5460.6545	31	1	30	31	2	29
252	902.5698	1.6883E-39	6004.9252	29	7	23	30	6	24
253	903.0952	1.0954E-34	3543.5956	21	6	15	22	7	16
254	903.1325	2.7779E-34	3499.0591	25	0	25	26	1	26
255	903.1325	5.5558E-34	3499.0591	25	1	25	26	0	26
256	903.1742	2.0637E-37	5073.4020	28	3	25	29	4	26
257	903.1825	1.0318E-37	5073.4005	28	4	25	29	3	26
258	905.2930	2.1273E-38	5337.8514	27	6	21	28	7	22
259	905.4716	4.1732E-41	4838.9618	30	1	30	29	2	27

260	905.6740	5.7595E-35	3819.2560	22	6	16	23	7	17
261	905.6765	1.4684E-36	4541.3957	27	2	25	28	3	26
262	905.6773	2.9368E-36	4541.3956	27	3	25	28	2	26
263	906.0195	4.0793E-35	4016.5319	26	1	25	27	2	26
264	906.0195	2.0397E-35	4016.5319	26	2	25	27	1	26
265	906.8530	6.5297E-35	3745.6738	26	1	26	26	2	25
266	906.8530	1.3059E-34	3745.6738	26	0	26	26	1	25
267	906.9854	6.6911E-38	5289.6209	28	4	24	29	5	25
268	907.1035	3.3438E-38	5289.5973	28	5	24	29	4	25
269	907.5979	2.3431E-38	5487.8478	28	5	23	29	6	24
270	907.9701	7.3558E-36	4104.6678	23	6	17	24	7	18
271	908.0781	1.9614E-37	5016.3074	26	6	20	27	7	21
272	908.8269	1.1653E-38	5487.5739	28	6	23	29	5	24
273	909.3721	3.6338E-36	4399.4976	24	6	18	25	7	19
274	909.4621	4.3149E-37	4703.4576	25	6	19	26	7	20
275	910.6403	4.2205E-39	5665.5751	28	7	22	29	6	23
276	910.9652	5.7548E-40	6167.0543	29	8	22	30	7	23
277	911.2435	1.6169E-37	5145.3990	30	2	29	30	3	28
278	911.2436	3.2338E-37	5145.3989	30	1	29	30	2	28
279	911.6695	4.5205E-37	4767.5464	27	3	24	28	4	25
280	911.6838	9.0405E-37	4767.5437	27	4	24	28	3	25
281	912.8590	5.7609E-42	7040.2094	31	9	23	32	8	24
282	914.3143	1.8673E-33	3246.6645	24	0	24	25	1	25
283	914.3143	9.3364E-34	3246.6645	24	1	24	25	0	25
284	914.4517	5.4874E-38	5165.7628	27	5	22	28	6	23
285	914.7969	1.1832E-35	4252.7506	26	2	24	27	3	25
286	914.7982	5.9158E-36	4252.7504	26	3	24	27	2	25
287	914.8487	1.5172E-37	4975.6404	27	4	23	28	5	24
288	915.0456	3.0319E-37	4975.6001	27	5	23	28	4	24
289	915.9635	7.5248E-35	3745.6738	25	1	24	26	2	25
290	915.9636	1.5050E-34	3745.6738	25	2	24	26	1	25
291	916.4215	1.0883E-37	5165.3109	27	6	22	28	5	23
292	916.5423	5.2023E-40	4541.3956	29	1	29	28	2	26
293	918.2766	4.3582E-34	3483.9149	25	1	25	25	2	24
294	918.2767	2.1791E-34	3483.9149	25	0	25	25	1	24
295	919.3147	3.9946E-38	5334.1599	27	7	21	28	6	22
296	920.1521	3.7815E-36	4470.4955	26	3	23	27	4	24
297	920.1768	1.8905E-36	4470.4909	26	4	23	27	3	24
298	920.6608	1.3446E-36	4838.9619	29	2	28	29	3	27
299	920.6609	6.7230E-37	4838.9618	29	1	28	29	2	27
300	920.9865	4.9030E-37	4852.2129	26	5	21	27	6	22
301	922.6429	1.3134E-36	4670.3283	26	4	22	27	5	23
302	922.9717	6.5580E-37	4670.2591	26	5	22	27	4	23
303	923.2880	1.4086E-39	5816.7948	28	8	21	29	7	22
304	923.9272	2.2747E-35	3973.0744	25	2	23	26	3	24
305	923.9295	4.5494E-35	3973.0740	25	3	23	26	2	24
306	924.1351	2.4190E-37	4851.4674	26	6	21	27	5	22
307	925.4614	2.9942E-33	3003.4597	23	0	23	24	1	24
308	925.4614	5.9884E-33	3003.4597	23	1	23	24	0	24
309	925.9188	5.2980E-34	3483.9149	24	1	23	25	2	24
310	925.9189	2.6490E-34	3483.9149	24	2	23	25	1	24
311	926.7041	1.2014E-39	6383.7637	33	4	30	33	4	30
312	926.7042	6.0069E-40	6383.7635	33	3	30	33	3	30

313	927.0606	1.0439E-36	4547.2702	25	5	20	26	6	21
314	927.6826	1.4535E-39	4252.7504	28	1	28	27	2	25
315	928.1572	1.5215E-41	6663.4154	30	9	22	31	8	23
316	928.6144	7.5466E-36	4182.3000	25	3	22	26	4	23
317	928.6571	1.5091E-35	4182.2918	25	4	22	26	3	23
318	928.8736	8.9090E-38	5010.5806	26	7	20	27	6	21
319	929.6826	6.9558E-34	3231.2963	24	1	24	24	2	23
320	929.6826	1.3912E-33	3231.2962	24	0	24	24	1	23
321	930.1822	2.6775E-36	4541.3957	28	2	27	28	3	26
322	930.1824	5.3551E-36	4541.3956	28	1	27	28	2	26
323	930.3412	2.7114E-36	4373.7381	25	4	21	26	5	22
324	930.8917	5.4104E-36	4373.6190	25	5	21	26	4	22
325	932.0687	2.0440E-36	4546.0432	25	6	20	26	5	21
326	932.4784	8.4678E-36	4251.0174	24	5	19	25	6	20
327	933.0595	1.6689E-34	3702.4128	24	2	22	25	3	23
328	933.0636	8.3444E-35	3702.4120	24	3	22	25	2	23
329	934.6971	2.9600E-39	6043.2505	32	3	30	32	4	29
330	934.6974	5.9200E-39	6043.2502	32	2	30	32	3	29
331	935.8766	8.8953E-34	3231.2963	23	1	22	24	2	23
332	935.8768	1.7791E-33	3231.2962	23	2	22	24	1	23
333	936.5681	1.8319E-32	2769.4820	22	0	22	23	1	23
334	936.5681	9.1596E-33	2769.4820	22	1	22	23	0	23
335	936.9906	1.6342E-35	3963.5548	23	5	18	24	6	19
336	937.0472	5.7460E-35	3903.0080	24	3	21	25	4	22
337	937.1216	2.8721E-35	3902.9933	24	4	21	25	3	22
338	937.6293	1.2821E-38	5473.6233	27	8	20	28	7	21
339	937.9036	2.1344E-35	4085.9222	24	4	20	25	5	21
340	938.8258	1.0632E-35	4085.7165	24	5	20	25	4	21
341	938.8776	1.4828E-38	3973.0740	27	1	27	26	2	24
342	939.6865	7.4495E-37	4694.6985	25	7	19	26	6	20
343	939.7922	2.0423E-35	4252.7506	27	2	26	27	3	25
344	939.7924	1.0211E-35	4252.7504	27	1	26	27	2	25
345	940.3249	1.2002E-34	3685.0099	22	5	17	23	6	18
346	940.3793	4.0933E-36	4249.0071	24	6	19	25	5	20
347	941.0638	4.2467E-33	2987.8573	23	1	23	23	2	22
348	941.0639	2.1234E-33	2987.8572	23	0	23	23	1	22
349	942.1864	2.9192E-34	3440.8093	23	2	21	24	3	22
350	942.1938	5.8383E-34	3440.8080	23	3	21	24	2	22
351	942.2685	2.0987E-34	3415.5475	21	5	16	22	6	17
352	942.7908	1.4028E-33	3155.3797	20	5	15	21	6	16
353	942.8373	2.7981E-38	5711.3116	31	3	29	31	4	28
354	942.8378	1.3990E-38	5711.3111	31	2	29	31	3	28
355	945.2677	4.0016E-35	3806.9332	23	4	19	24	5	20
356	945.4389	1.0427E-34	3632.6652	23	3	20	24	4	21
357	945.5691	2.0842E-34	3632.6386	23	4	20	24	3	21
358	945.8289	5.6964E-33	2987.8573	22	1	21	23	2	22
359	945.8294	2.8482E-33	2987.8572	22	2	21	23	1	22
360	946.3619	1.5016E-40	6293.6359	29	9	21	30	8	22
361	946.8116	7.9528E-35	3806.5778	23	5	19	24	4	20
362	947.6295	2.6719E-32	2544.7674	21	0	21	22	1	22
363	947.6295	5.3438E-32	2544.7674	21	1	21	22	0	22
364	949.2986	3.0964E-35	3960.2870	23	6	18	24	5	19
365	949.4770	3.7282E-35	3973.0744	26	2	25	26	3	24

366	949.4774	7.4565E-35	3973.0740	26	1	25	26	2	24
367	950.1147	3.4917E-38	3702.4120	26	1	26	25	2	23
368	951.1087	6.3406E-38	5388.0091	30	3	28	30	4	27
369	951.1094	1.2681E-37	5388.0082	30	2	28	30	3	27
370	951.3005	1.9469E-33	3188.3057	22	2	20	23	3	21
371	951.3140	9.7341E-34	3188.3031	22	3	20	23	2	21
372	952.1768	1.4500E-36	4386.3686	24	7	18	25	6	19
373	952.3378	2.8562E-34	3536.8270	22	4	18	23	5	19
374	952.4146	6.1975E-33	2753.6356	22	1	22	22	2	21
375	952.4147	1.2395E-32	2753.6354	22	0	22	22	1	21
376	953.7731	7.2100E-34	3371.3154	22	3	19	23	4	20
377	954.0017	3.6017E-34	3371.2672	22	4	19	23	3	20
378	954.1989	2.7049E-38	5137.6172	26	8	19	27	7	20
379	954.9144	1.4131E-34	3536.2135	22	5	18	23	4	19
380	955.1360	1.0797E-43	7548.1838	32	10	23	33	9	24
381	955.7683	8.6921E-33	2753.6356	21	1	20	22	2	21
382	955.7693	1.7384E-32	2753.6354	21	2	20	22	1	21
383	957.9592	3.7124E-43	6043.2502	33	3	31	32	3	29
384	958.6411	1.4859E-31	2329.3504	20	0	20	21	1	21
385	958.6412	7.4295E-32	2329.3504	20	1	20	21	0	21
386	958.9696	4.8458E-34	3275.6670	21	4	17	22	5	18
387	959.1488	5.5004E-35	3679.7627	22	6	17	23	5	18
388	959.2246	2.6057E-34	3702.4128	25	2	24	25	3	23
389	959.2253	1.3028E-34	3702.4120	25	1	24	25	2	23
390	959.4972	5.5091E-37	5073.4020	29	3	27	29	4	26
391	959.4985	2.7546E-37	5073.4005	29	2	27	29	3	26
392	960.3939	3.0926E-33	2944.9415	21	2	19	22	3	20
393	960.4186	6.1846E-33	2944.9367	21	3	19	22	2	20
394	961.3836	3.0598E-37	3440.8080	25	1	25	24	2	22
395	962.0255	1.1866E-33	3119.0009	21	3	18	22	4	19
396	962.4282	2.3695E-33	3118.9135	21	4	18	22	3	19
397	962.4698	4.0421E-40	6631.0670	33	5	29	33	5	29
398	962.4723	2.0211E-40	6631.0641	33	4	29	33	4	29
399	963.2424	9.5214E-34	3274.6114	21	5	17	22	4	18
400	963.7297	3.4585E-32	2528.6672	21	1	21	21	2	20
401	963.7300	1.7293E-32	2528.6669	21	0	21	21	1	20
402	964.9577	3.1229E-33	3023.5306	20	4	16	21	5	17
403	965.6881	5.0545E-32	2528.6672	20	1	19	21	2	20
404	965.6899	2.5272E-32	2528.6669	20	2	19	21	1	20
405	966.1588	1.5140E-42	5711.3111	32	2	31	31	3	28
406	966.7377	1.0449E-35	4085.5187	23	7	17	24	6	18
407	966.9079	3.4708E-40	5931.4135	28	9	20	29	8	21
408	967.9904	1.1468E-36	4767.5464	28	3	26	28	4	25
409	967.9926	2.2936E-36	4767.5437	28	2	26	28	3	25
410	969.0245	4.3565E-34	3440.8093	24	2	23	24	3	22
411	969.0257	8.7132E-34	3440.8080	24	1	23	24	2	22
412	969.4578	1.8709E-32	2710.7545	20	2	18	21	3	19
413	969.5034	9.3531E-33	2710.7454	20	3	18	21	2	19
414	969.9681	1.0390E-39	6283.0007	32	4	29	32	5	28
415	969.9721	2.0780E-39	6282.9959	32	3	29	32	4	28
416	970.1578	7.4310E-33	2875.7639	20	3	17	21	4	18
417	970.3407	3.6446E-34	3407.2750	21	6	16	22	5	17
418	970.8676	3.7051E-33	2875.6047	20	4	17	21	3	18



419	971.8841	1.1151E-42	7154.2131	31	10	22	32	9	23
420	971.9668	1.5156E-33	3021.7263	20	5	16	21	4	17
421	972.6757	6.2694E-37	3188.3031	24	1	24	23	2	21
422	973.0057	2.1201E-37	4809.1042	25	8	18	26	7	19
423	974.5948	2.1570E-41	5388.0082	31	2	30	30	3	27
424	976.5774	9.1478E-36	4470.4955	27	3	25	27	4	24
425	976.5814	4.5740E-36	4470.4909	27	2	25	27	3	24
426	977.5719	1.0251E-38	5943.3613	31	4	28	31	5	27
427	977.5786	5.1256E-39	5943.3531	31	3	28	31	4	27
428	978.8674	2.7874E-33	3188.3057	23	2	22	23	3	21
429	978.8697	1.3937E-33	3188.3031	23	1	22	23	2	21
430	983.2420	6.9068E-41	5073.4005	30	2	29	29	3	26
431	983.3271	5.5837E-34	3142.6745	20	6	15	21	5	16
432	983.6012	1.7379E-35	3792.2728	22	7	16	23	6	17
433	983.9844	4.8249E-36	2944.9367	23	1	23	22	2	20
434	985.2486	1.7473E-35	4182.3000	26	3	24	26	4	23
435	985.2557	3.4947E-35	4182.2918	26	2	24	26	3	23
436	985.2732	2.4256E-38	5612.2141	30	4	27	30	5	26
437	985.2846	4.8517E-38	5612.2002	30	3	27	30	4	26
438	988.7451	4.2646E-33	2944.9415	22	2	21	22	3	20
439	988.7494	8.5294E-33	2944.9367	22	1	21	22	2	20
440	989.1398	3.0252E-39	5577.5213	27	9	19	28	8	20
441	991.8275	2.7806E-42	6768.8682	30	10	21	31	9	22
442	992.0789	8.0893E-40	4767.5437	29	2	28	28	3	25
443	993.0654	2.2019E-37	5289.6209	29	4	26	29	5	25
444	993.0849	1.1011E-37	5289.5973	29	3	26	29	4	25
445	993.7857	3.8840E-37	4488.7066	24	8	17	25	7	18
446	993.9955	1.2783E-34	3903.0080	25	3	23	25	4	22
447	994.0083	6.3920E-35	3902.9933	25	2	23	25	3	22
448	994.4630	1.3996E-40	6860.2100	33	6	28	33	6	28
449	994.4930	6.9995E-41	6860.1724	33	5	28	33	5	28
450	995.3047	8.7429E-36	2710.7454	22	1	22	21	2	19
451	998.6502	2.4958E-32	2710.7545	21	2	20	21	3	19
452	998.6585	1.2480E-32	2710.7454	21	1	20	21	2	19
453	1000.9426	4.7909E-37	4975.6404	28	4	25	28	5	24
454	1000.9760	9.5841E-37	4975.6001	28	3	25	28	4	24
455	1001.0871	2.1894E-39	4470.4909	28	2	27	27	3	24
456	1001.5862	3.7549E-40	6504.6493	32	5	28	32	6	27
457	1001.6349	7.5126E-40	6504.5877	32	4	28	32	5	27
458	1002.7126	1.0711E-34	3507.0637	21	7	15	22	6	16
459	1002.8105	2.2381E-34	3632.6652	24	3	22	24	4	21
460	1002.8337	4.4770E-34	3632.6386	24	2	22	24	3	21
461	1006.6335	5.9824E-35	2485.7634	21	1	21	20	2	18
462	1008.8085	3.8688E-39	6157.3567	31	5	27	31	6	26
463	1008.8884	1.9356E-39	6157.2558	31	4	27	31	5	26
464	1008.8993	3.9966E-36	4670.3283	27	4	24	27	5	23
465	1008.9567	1.9991E-36	4670.2591	27	3	24	27	4	23
466	1010.2510	2.2070E-38	4182.2918	27	2	26	26	3	23
467	1011.6865	1.5002E-33	3371.3154	23	3	21	23	4	20
468	1011.7285	7.5031E-34	3371.2672	23	2	21	23	3	20
469	1012.3344	6.2641E-39	5232.8920	26	9	18	27	8	19
470	1013.6014	2.6869E-41	6393.0849	29	10	20	30	9	21
471	1016.0210	2.6869E-36	4177.2987	23	8	16	24	7	17

472	1016.1149	9.5648E-39	5818.4009	30	5	26	30	6	25
473	1016.2463	1.9149E-38	5818.2347	30	4	26	30	5	25
474	1016.9296	7.9867E-36	4373.7381	26	4	23	26	5	22
475	1017.0287	1.5985E-35	4373.6190	26	3	23	26	4	22
476	1019.5582	5.2057E-38	3902.9933	26	2	25	25	3	22
477	1020.6162	2.4055E-33	3119.0009	22	3	20	22	4	19
478	1020.6927	4.8135E-33	3118.9135	22	2	20	22	3	19
479	1023.4947	9.0752E-38	5487.8478	29	5	25	29	6	24
480	1023.6913	1.5432E-34	3230.6548	20	7	14	21	6	15
481	1023.7113	4.5450E-38	5487.5739	29	4	25	29	5	24
482	1024.1406	5.1166E-41	7071.3243	33	7	27	33	7	27
483	1024.4246	2.5643E-41	7070.9476	33	6	27	33	6	27
484	1025.0268	6.1159E-35	4085.9222	25	4	22	25	5	21
485	1025.1980	3.0616E-35	4085.7165	25	3	22	25	4	21
486	1027.4719	4.2676E-43	6282.9959	33	4	30	32	4	28
487	1028.9988	4.6149E-37	3632.6386	25	2	24	24	3	21
488	1029.5914	1.4760E-32	2875.7639	21	3	19	21	4	18
489	1029.7306	7.3865E-33	2875.6047	21	2	19	21	3	18
490	1030.8247	1.4339E-40	6708.2070	32	6	27	32	7	26
491	1030.9380	2.0647E-37	5165.7628	28	5	24	28	6	23
492	1031.2736	2.8783E-40	6707.6101	32	5	27	32	6	26
493	1031.2954	4.1404E-37	5165.3109	28	4	24	28	5	23
494	1033.1817	1.1213E-34	3806.9332	24	4	21	24	5	20
495	1033.4774	2.2471E-34	3806.5778	24	3	21	24	4	20
496	1034.5945	1.5910E-42	5943.3531	32	3	30	31	4	27
497	1035.7346	4.9652E-38	4898.5327	25	9	17	26	8	18
498	1035.9308	6.2973E-41	6027.8034	28	10	19	29	9	20
499	1037.6752	1.5441E-39	6353.2104	31	6	26	31	7	25
500	1038.3848	7.7648E-40	6352.2647	31	5	26	31	6	25
501	1038.4328	1.8016E-36	4852.2129	27	5	23	27	6	22
502	1038.5666	9.6391E-37	3371.2672	24	2	23	23	3	20
503	1039.0197	4.4301E-36	3875.9087	22	8	15	23	7	16
504	1039.0217	9.0470E-37	4851.4674	27	4	23	27	5	22
505	1041.3806	7.8727E-34	3536.8270	23	4	20	23	5	19
506	1041.8906	3.9498E-34	3536.2135	23	3	20	23	4	19
507	1041.9487	2.1627E-41	5612.2002	31	3	29	30	4	26
508	1044.6174	3.9909E-39	6006.4208	30	6	25	30	7	24
509	1045.7366	8.0531E-39	6004.9252	30	5	25	30	6	24
510	1045.9606	3.7668E-36	4547.2702	26	5	22	26	6	21
511	1046.9280	7.5865E-36	4546.0432	26	4	22	26	5	21
512	1048.2596	7.6076E-36	3118.9135	23	2	22	22	3	19
513	1049.5204	6.7806E-41	5289.5973	30	3	28	29	4	25
514	1049.6020	1.3225E-33	3275.6670	22	4	19	22	5	18
515	1050.4771	2.6605E-33	3274.6114	22	3	19	22	4	18
516	1051.5934	3.9587E-38	5667.9320	29	6	24	29	7	23
517	1052.2369	2.0087E-41	7264.1728	33	8	26	33	8	26
518	1053.3504	2.0069E-38	5665.5751	29	5	24	29	6	23
519	1053.4933	3.0180E-35	4251.0174	25	5	21	25	6	20
520	1054.2673	1.0230E-41	7261.2740	33	7	26	33	7	26
521	1055.0723	1.5261E-35	4249.0071	25	4	21	25	5	20
522	1057.2991	7.9076E-40	4975.6001	29	3	27	28	4	24
523	1057.7496	5.7272E-40	5673.8882	27	10	18	28	9	19
524	1057.8111	8.5009E-33	3023.5306	21	4	18	21	5	17

525	1058.0379	5.8716E-41	6893.5606	32	7	26	32	8	25
526	1058.0818	1.4209E-35	2875.6047	22	2	21	21	3	18
527	1058.5494	9.4129E-38	5337.8514	28	6	23	28	7	22
528	1058.5943	9.4599E-38	4575.4410	24	9	16	25	8	17
529	1059.3001	4.2926E-33	3021.7263	21	3	18	21	4	17
530	1060.9875	5.7876E-35	3963.5548	24	5	20	24	6	19
531	1061.1031	1.2069E-40	6889.1757	32	6	26	32	7	25
532	1061.2858	1.9234E-37	5334.1599	28	5	23	28	6	22
533	1062.0044	2.8057E-35	3585.6153	21	8	14	22	7	15
534	1063.5388	1.1788E-34	3960.2870	24	4	20	24	5	19
535	1064.1650	6.5969E-40	6531.0536	31	7	25	31	8	24
536	1065.2776	2.1561E-39	4670.2591	28	3	26	27	4	23
537	1065.4250	8.5781E-37	5016.3074	27	6	22	27	7	21
538	1068.0466	1.0066E-34	2641.3581	21	2	20	20	3	17
539	1068.3795	4.2472E-34	3685.0099	23	5	19	23	6	18
540	1068.7357	3.4346E-40	6524.4734	31	6	25	31	7	24
541	1069.6340	4.4333E-37	5010.5806	27	5	22	27	6	21
542	1070.3713	1.7777E-39	6176.8140	30	7	24	30	8	23
543	1072.1449	1.8707E-36	4703.4576	26	6	21	26	7	20
544	1072.4382	2.1868E-34	3679.7627	23	4	19	23	5	18
545	1073.4539	2.2086E-38	4373.6190	27	3	25	26	4	22
546	1075.5804	7.4458E-34	3415.5475	22	5	18	22	6	17
547	1076.4617	1.8355E-38	5831.0332	29	7	23	29	8	22
548	1077.0742	3.7731E-39	6167.0543	30	6	24	30	7	23
549	1078.2948	1.2612E-39	5332.0301	26	10	17	27	9	18
550	1078.5008	3.9358E-36	4694.6985	26	5	21	26	6	20
551	1078.5704	6.4946E-43	6694.0121	30	10	20	31	9	23
552	1078.6143	1.5600E-35	4399.4976	25	6	20	25	7	19
553	1078.7113	8.5013E-42	7439.9139	33	9	25	33	9	25
554	1080.2355	3.1262E-42	6334.0458	29	10	19	30	9	22
555	1080.2524	6.9393E-37	4264.5062	23	9	15	24	8	16
556	1081.1054	2.4025E-44	7062.7313	31	10	21	32	9	24
557	1081.8321	5.3297E-38	4085.7165	26	3	24	25	4	21
558	1081.8897	1.5605E-33	3407.2750	22	4	18	22	5	17
559	1082.2771	4.5307E-38	5493.9383	28	7	22	28	8	21
560	1082.2948	2.5664E-41	7062.7313	32	8	25	32	9	24
561	1082.4741	4.9819E-33	3155.3797	21	5	17	21	6	16
562	1084.2023	4.2784E-35	3307.4484	20	8	13	21	7	14
563	1084.7186	3.1042E-35	4104.6678	24	6	19	24	7	18
564	1085.2261	4.7654E-41	5983.1483	28	10	18	29	9	21
565	1086.0699	1.0007E-38	5816.7948	29	6	23	29	7	22
566	1086.4949	2.9748E-40	6694.0121	31	8	24	31	9	23
567	1087.6795	4.2700E-37	5165.7951	27	7	21	27	8	20
568	1087.9621	8.4234E-36	4386.3686	25	5	20	25	6	19
569	1088.4431	3.1023E-40	5493.9383	27	9	18	28	8	21
570	1088.5891	1.9368E-45	7439.9139	32	10	22	33	9	25
571	1088.6500	4.7382E-42	7423.7267	33	8	25	33	8	25
572	1088.9492	3.9033E-43	6504.5877	33	5	29	32	5	27
573	1089.3832	4.1885E-39	5165.7951	26	9	17	27	8	20
574	1090.3295	2.3533E-34	3819.2560	23	6	18	23	7	17
575	1090.4257	4.8609E-37	3806.5778	25	3	23	24	4	20
576	1090.8112	8.2488E-40	6334.0458	30	8	23	30	9	22
577	1090.9495	7.2764E-41	5831.0332	28	9	19	29	8	22

578	1091.9621	2.6827E-33	3142.6745	21	4	17	21	5	16
579	1092.5463	9.5836E-37	4846.9078	26	7	20	26	8	19
580	1092.6986	1.5238E-40	5641.6555	27	10	17	28	9	20
581	1093.3651	1.1872E-38	4846.9078	25	9	16	26	8	19
582	1094.8711	8.7278E-39	5983.1483	29	8	22	29	9	21
583	1095.3158	4.2374E-34	3543.5956	22	6	17	22	7	16
584	1095.6336	1.0265E-37	5473.6233	28	6	22	28	7	21
585	1095.7131	1.4034E-42	6157.2558	32	4	29	31	5	26
586	1096.0048	5.9557E-41	7040.2094	32	7	25	32	8	24
587	1096.7711	8.1772E-36	4537.6139	25	7	19	25	8	18
588	1097.1237	2.9666E-42	6176.8140	29	9	20	30	8	23
589	1097.1622	1.0721E-38	5002.6587	25	10	16	26	9	17
590	1097.9772	6.9669E-35	4085.5187	24	5	19	24	6	18
591	1098.4274	2.1961E-38	5641.6555	28	8	21	28	9	20
592	1099.2621	1.0497E-36	3536.2135	24	3	22	23	4	19
593	1099.5599	2.8913E-33	3278.0558	21	6	16	21	7	15
594	1099.8766	1.1703E-37	4537.6139	24	9	15	25	8	18
595	1100.2414	1.2220E-36	3966.3911	22	9	14	23	8	15
596	1100.2719	1.6539E-35	4238.2735	24	7	18	24	8	17
597	1101.1332	4.3018E-37	4104.6678	23	8	15	24	7	18
598	1101.3401	2.0974E-37	5309.9125	27	8	20	27	9	19
599	1101.4660	1.1432E-41	7223.2067	32	9	24	32	10	23
600	1101.9367	1.6970E-39	5309.9125	26	10	16	27	9	19
601	1101.9905	1.3363E-40	6851.0780	31	9	23	31	10	22
602	1102.2225	3.7496E-42	7604.4999	33	10	24	33	10	24
603	1102.6934	1.5392E-37	4399.4976	24	8	16	25	7	19
604	1102.6984	1.8777E-41	5818.2347	31	4	28	30	5	25
605	1103.0012	1.2655E-34	3949.2551	23	7	17	23	8	16
606	1103.1292	3.7289E-40	6488.4434	30	9	22	30	10	21
607	1103.1422	4.1150E-36	3819.2560	22	8	14	23	7	17
608	1103.5543	4.7419E-37	4988.2618	26	8	19	26	9	18
609	1104.3782	3.9599E-39	6135.6195	29	9	21	29	10	20
610	1104.6371	1.8191E-40	6663.4154	31	7	24	31	8	23
611	1104.8461	3.2860E-34	3694.9716	21	9	13	21	10	12
612	1104.9556	2.2847E-34	3670.9184	22	7	16	22	8	15
613	1105.0804	4.0534E-36	4677.0295	25	8	18	25	9	17
614	1105.2661	1.6430E-34	3695.0402	21	9	12	21	10	11
615	1105.3154	4.9055E-35	3961.3170	22	9	14	22	10	13
616	1105.4208	9.9713E-39	5792.9005	28	9	20	28	10	19
617	1105.5273	2.5472E-37	5137.6172	27	6	21	27	7	20
618	1105.7755	2.7565E-35	4238.9830	23	9	15	23	10	14
619	1105.9629	7.5069E-34	3541.6569	21	8	14	21	9	13
620	1105.9788	8.1760E-36	4376.5135	24	8	17	24	9	16
621	1106.1097	9.5045E-38	5460.5514	27	9	19	27	10	18
622	1106.1479	9.8107E-35	3961.4722	22	9	13	22	10	12
623	1106.1675	3.6472E-36	4527.8677	24	9	16	24	10	15
624	1106.1800	1.5539E-33	3403.5963	21	7	15	21	8	14
625	1106.2989	1.1137E-34	3808.6295	22	8	15	22	9	14
626	1106.3457	6.2187E-35	4086.9740	23	8	16	23	9	15
627	1106.4134	1.8194E-36	4827.8539	25	9	17	25	10	16
628	1106.4229	2.1401E-37	5138.8035	26	9	18	26	10	17
629	1106.9830	2.1163E-43	6531.0536	30	9	21	31	8	24
630	1107.3381	1.3780E-35	4239.3146	23	9	14	23	10	13

631	1108.0396	1.1520E-38	4703.4576	25	8	17	26	7	20
632	1108.2464	8.5780E-36	3543.5956	21	8	13	22	7	16
633	1108.2727	1.3939E-34	3792.2728	23	5	18	23	6	17
634	1108.3792	2.5675E-37	4238.2735	23	9	14	24	8	17
635	1108.3904	8.6075E-36	3274.6114	23	3	21	22	4	18
636	1108.9509	7.2906E-36	4528.5396	24	9	15	24	10	14
637	1109.4263	3.7499E-34	3542.4157	21	8	13	21	9	12
638	1109.9134	5.8795E-41	5487.5739	30	4	27	29	5	24
639	1111.1228	9.0861E-37	4829.1501	25	9	16	25	10	15
640	1112.2463	2.2233E-34	3810.1519	22	8	14	22	9	13
641	1112.3785	4.2182E-39	4988.2618	25	10	15	26	9	18
642	1113.7344	2.1548E-39	6293.6359	30	7	23	30	8	22
643	1113.8216	8.3915E-35	3155.3797	20	7	13	21	6	16
644	1113.9881	4.2703E-37	5141.1902	26	9	17	26	10	16
645	1114.2926	2.1880E-38	4685.9154	24	10	15	25	9	16
646	1115.2813	2.4448E-36	4809.1042	26	6	20	26	7	19
647	1115.8473	6.3411E-35	3278.0558	20	8	12	21	7	15
648	1115.9366	3.0998E-35	4089.8644	23	8	15	23	9	14
649	1117.0442	2.7717E-39	5016.3074	26	8	18	27	7	21
650	1117.3754	6.9246E-40	5165.3109	29	4	26	28	5	23
651	1117.6286	4.7339E-38	5464.7528	27	9	18	27	10	17
652	1117.6437	8.6104E-36	3415.5475	21	7	14	22	6	17
653	1117.8908	1.6787E-35	3021.7263	22	3	20	21	4	17
654	1118.2711	1.0784E-33	3507.0637	22	5	17	22	6	16
655	1118.3650	2.0388E-36	3949.2551	22	9	13	23	8	16
656	1118.3819	8.2249E-36	3681.4358	21	9	13	22	8	14
657	1120.4013	1.1394E-45	6893.5606	31	9	22	32	8	25
658	1120.4749	1.6278E-35	4381.7162	24	8	16	24	9	15
659	1122.0051	1.9823E-38	5799.9775	28	9	19	28	10	18
660	1122.4259	6.1573E-39	5931.4135	29	7	22	29	8	21
661	1123.5332	7.7723E-34	3409.6580	21	7	14	21	8	13
662	1123.5996	3.8082E-38	4677.0295	24	10	14	25	9	17
663	1124.2131	5.6491E-36	4488.7066	25	6	19	25	7	18
664	1125.1156	1.9239E-39	4851.4674	28	4	25	27	5	22
665	1125.4647	3.0175E-36	3685.0099	22	7	15	23	6	18
666	1125.5817	2.0131E-36	4685.9154	25	8	17	25	9	16
667	1126.9124	1.9615E-39	6147.0253	29	9	20	29	10	19
668	1127.1612	2.0043E-33	3230.6548	21	5	16	21	6	15
669	1127.1743	2.7950E-42	7548.1838	33	9	24	33	9	24
670	1127.8873	1.2491E-34	2777.4679	21	3	19	20	4	16
671	1129.0388	4.5750E-34	3681.4358	22	7	15	22	8	14
672	1129.2495	1.2020E-40	5337.8514	27	8	19	28	7	22
673	1129.3879	3.7044E-36	3670.9184	21	9	12	22	8	15
674	1129.8772	1.7051E-37	4381.7162	23	10	14	24	9	15
675	1129.8804	6.7377E-38	5577.5213	28	7	21	28	8	20
676	1130.6928	9.3713E-37	5002.6587	26	8	18	26	9	17
677	1131.2018	3.6929E-41	7154.2131	32	8	24	32	9	23
678	1131.5711	4.9839E-35	4177.2987	24	6	18	24	7	17
679	1132.0167	7.3406E-40	6506.0199	30	9	21	30	10	20
680	1133.1844	2.0236E-38	4546.0432	27	4	24	26	5	21
681	1134.0539	6.3067E-35	3966.3911	23	7	16	23	8	15
682	1134.7875	1.3146E-35	3409.6580	20	9	12	21	8	13
683	1135.0708	1.0228E-37	5332.0301	27	8	19	27	9	18

684	1135.1764	1.1694E-40	6768.8682	31	8	23	31	9	22
685	1135.2862	7.8930E-38	4376.5135	23	10	13	24	9	16
686	1135.4305	1.7473E-37	5232.8920	27	7	20	27	8	19
687	1136.7292	1.0369E-34	3875.9087	23	6	17	23	7	16
688	1136.8901	2.2420E-37	3963.5548	23	7	16	24	6	19
689	1137.0004	6.4909E-41	6876.9615	31	9	22	31	10	21
690	1137.2248	1.2447E-44	7264.1728	32	9	23	33	8	26
691	1137.7259	3.2388E-35	4264.5062	24	7	17	24	8	16
692	1138.0130	4.1702E-38	5673.8882	28	8	20	28	9	19
693	1138.0142	1.4045E-39	6393.0849	30	8	22	30	9	21
694	1138.6529	1.7012E-36	4898.5327	26	7	19	26	8	18
695	1139.0419	3.9607E-39	6027.8034	29	8	21	29	9	20
696	1139.2425	1.4401E-33	3307.4484	21	6	15	21	7	14
697	1139.3147	8.0418E-34	3585.6153	22	6	16	22	7	15
698	1139.3855	3.8551E-36	4575.4410	25	7	18	25	8	17
699	1141.0775	2.4824E-35	3403.5963	20	9	11	21	8	14
700	1141.6606	5.0501E-38	4249.0071	26	4	23	25	5	20
701	1141.7575	2.1695E-41	7259.6400	32	9	23	32	10	22
702	1143.9691	9.7414E-42	5667.9320	28	8	20	29	7	23
703	1144.2246	3.1523E-37	4089.8644	22	10	13	23	9	14
704	1146.5291	1.7154E-42	7653.5978	33	10	23	33	10	23
705	1147.0630	3.5459E-43	6707.6101	33	6	28	32	6	26
706	1147.2109	6.0524E-37	4086.9740	22	10	12	23	9	15
707	1150.6620	4.7980E-37	3960.2870	25	4	22	24	5	19
708	1151.2147	5.4610E-38	4251.0174	24	7	17	25	6	20
709	1153.9707	1.2498E-42	6352.2647	32	5	28	31	6	25
710	1155.4617	3.6190E-35	3023.5306	20	6	14	21	5	17
711	1157.6510	2.1999E-36	3810.1519	21	10	12	22	9	13
712	1159.2157	1.0776E-36	3808.6295	21	10	11	22	9	14
713	1160.3522	1.0879E-36	3679.7627	24	4	21	23	5	18
714	1160.4245	4.5875E-44	6006.4208	29	8	21	30	7	24
715	1161.2401	1.6632E-41	6004.9252	31	5	27	30	6	24
716	1167.5563	2.4115E-39	4547.2702	25	7	18	26	6	21
717	1168.9407	5.2484E-41	5665.5751	30	5	26	29	6	23
718	1170.4218	3.6047E-36	3542.4157	20	10	11	21	9	12
719	1170.9326	9.4516E-36	3407.2750	23	4	20	22	5	17
720	1171.0238	2.8132E-36	3275.6670	21	6	15	22	5	18
721	1171.1981	7.1390E-36	3541.6569	20	10	10	21	9	13
722	1177.1826	6.3064E-40	5334.1599	29	5	25	28	6	22
723	1177.8887	7.3731E-43	6353.2104	30	8	22	31	7	25
724	1182.5945	1.9752E-35	3142.6745	22	4	19	21	5	16
725	1184.9727	1.8160E-40	4852.2129	26	7	19	27	6	22
726	1186.1203	1.8089E-39	5010.5806	28	5	24	27	6	21
727	1188.1031	7.2649E-37	3536.8270	22	6	16	23	5	19
728	1195.4093	1.5978E-34	2885.9323	21	4	18	20	5	15
729	1195.8376	2.2871E-43	6708.2070	31	8	23	32	7	26
730	1195.9471	1.9880E-38	4694.6985	27	5	23	26	6	20
731	1202.5596	3.1914E-42	5165.7628	27	7	20	28	6	23
732	1205.7047	3.3255E-38	3806.9332	23	6	17	24	5	20
733	1206.2891	3.4148E-43	6889.1757	33	7	27	32	7	25
734	1206.8622	5.2495E-38	4386.3686	26	5	22	25	6	19
735	1214.0906	1.6948E-43	7071.3243	32	8	24	33	7	27
736	1214.5583	1.2145E-42	6524.4734	32	6	27	31	7	24

737	1218.9920	5.3507E-37	4085.5187	25	5	21	24	6	18
738	1219.5539	2.6906E-41	5487.8478	28	7	21	29	6	24
739	1222.4066	7.8383E-36	2875.7639	20	5	15	21	4	18
740	1222.9476	2.1120E-39	4085.9222	24	6	18	25	5	21
741	1223.8314	1.6503E-41	6167.0543	31	6	26	30	7	23
742	1232.2696	1.3223E-36	3792.2728	24	5	20	23	6	17
743	1234.2434	5.3923E-41	5816.7948	30	6	25	29	7	22
744	1235.4384	8.7445E-42	5818.4009	29	7	22	30	6	25
745	1238.8151	4.0814E-37	3119.0009	21	5	16	22	4	19
746	1239.1815	1.4449E-40	4373.7381	25	6	19	26	5	22
747	1245.9022	6.8124E-40	5473.6233	29	6	24	28	7	21
748	1246.3257	1.2740E-35	3507.0637	23	5	19	22	6	16
749	1250.0136	7.2200E-42	6157.3567	30	7	23	31	6	26
750	1254.0195	2.9700E-38	3371.3154	22	5	17	23	4	20
751	1254.0572	7.3687E-40	4670.3283	26	6	20	27	5	23
752	1258.7837	2.0877E-39	5137.6172	28	6	23	27	7	20
753	1260.4731	3.0007E-35	3230.6548	22	5	18	21	6	15
754	1263.4032	1.1846E-42	6504.6493	31	7	24	32	6	27
755	1267.5040	2.4011E-40	4975.6404	27	6	21	28	5	24
756	1267.8802	2.1397E-39	3632.6652	23	5	18	24	4	21
757	1272.6282	2.4906E-38	4809.1042	27	6	22	26	7	19
758	1273.8015	2.7586E-34	2964.0523	21	5	17	20	6	14
759	1276.0042	6.6797E-43	6860.2100	32	7	25	33	6	28
760	1276.2002	3.7678E-43	7040.2094	33	8	26	32	8	24
761	1277.7338	6.9723E-37	2710.7545	20	4	16	21	3	19
762	1279.6360	2.1028E-40	5289.6209	28	6	22	29	5	25
763	1280.4878	1.2498E-38	3903.0080	24	5	19	25	4	22
764	1286.8959	7.2406E-38	4488.7066	26	6	21	25	7	18
765	1288.1831	1.4215E-42	6663.4154	32	7	26	31	8	23
766	1289.6952	1.9506E-39	2944.9415	21	4	17	22	3	20
767	1290.6506	3.7484E-41	5612.2141	29	6	23	30	5	26
768	1292.0307	4.5637E-39	4182.3000	25	5	20	26	4	23
769	1300.7671	2.3383E-41	5943.3613	30	6	24	31	5	27
770	1300.8132	8.1939E-37	4177.2987	25	6	20	24	7	17
771	1300.8591	1.0045E-37	3188.3057	22	4	18	23	3	21
772	1301.5827	2.0665E-41	6293.6359	31	7	25	30	8	22
773	1302.5364	5.0210E-34	3230.6548	21	7	14	21	6	15
774	1302.7039	4.4637E-39	4470.4955	26	5	21	27	4	24
775	1303.4108	2.7892E-34	3507.0637	22	7	15	22	6	16
776	1304.0164	6.7319E-34	3142.6745	21	6	15	21	5	16
777	1308.1722	3.4718E-35	3792.2728	23	7	16	23	6	17
778	1310.2084	3.3003E-42	6283.0007	31	6	25	32	5	28
779	1311.3915	5.1334E-38	3440.8093	23	4	19	24	3	22
780	1312.6682	8.8732E-40	4767.5464	27	5	22	28	4	25
781	1313.4778	2.2404E-36	3875.9087	24	6	19	23	7	16
782	1315.7718	7.2902E-41	5931.4135	30	7	24	29	8	21
783	1316.7134	1.5678E-35	4085.5187	24	7	17	24	6	18
784	1317.2545	1.4456E-37	2528.6672	20	3	17	21	2	20
785	1317.6550	3.2678E-34	3407.2750	22	6	16	22	5	17
786	1319.2118	1.7168E-42	6631.0670	32	6	26	33	5	29
787	1321.4130	6.1445E-38	3702.4128	24	4	20	25	3	23
788	1322.0437	6.1665E-40	5073.4020	28	5	23	29	4	26
789	1322.7906	1.2138E-36	4488.7066	25	8	17	25	7	18

790	1323.9702	2.3356E-35	3585.6153	23	6	18	22	7	15
791	1324.2473	5.3765E-37	4809.1042	26	8	18	26	7	19
792	1324.8924	9.9402E-36	4177.2987	24	8	16	24	7	17
793	1327.3909	2.4065E-37	2753.6356	21	3	18	22	2	21
794	1328.4579	1.6399E-36	4386.3686	25	7	18	25	6	19
795	1329.4838	5.4180E-38	5137.6172	27	8	19	27	7	20
796	1329.8923	1.8599E-35	3875.9087	23	8	15	23	7	16
797	1329.9736	1.0002E-39	5577.5213	29	7	23	28	8	20
798	1330.9165	9.6971E-41	5388.0091	29	5	24	30	4	27
799	1331.0050	1.4330E-38	3973.0744	25	4	21	26	3	24
800	1331.4631	5.6848E-35	3307.4484	22	6	17	21	7	14
801	1332.8752	3.7958E-35	3679.7627	23	6	17	23	5	18
802	1335.3493	5.0452E-34	3042.2664	21	6	16	20	7	13
803	1336.0897	7.1353E-34	3021.7263	21	5	16	21	4	17
804	1336.7829	1.2910E-34	3585.6153	22	8	14	22	7	15
805	1337.2312	4.2726E-37	2987.8573	22	3	19	23	2	22
806	1338.2779	2.0165E-38	5473.6233	28	8	20	28	7	21
807	1339.3502	5.6273E-41	5711.3116	30	5	25	31	4	28
808	1340.2205	1.1453E-38	4252.7506	26	4	22	27	3	25
809	1342.4871	6.5090E-37	4694.6985	26	7	19	26	6	20
810	1342.5242	1.2861E-39	5931.4135	29	9	20	29	8	21
811	1343.3234	3.3208E-39	5232.8920	28	7	22	27	8	19
812	1344.3936	2.1077E-34	3307.4484	21	8	13	21	7	14
813	1344.4007	4.7003E-40	6293.6359	30	9	21	30	8	22
814	1344.4613	1.2902E-38	5577.5213	28	9	19	28	8	20
815	1346.8078	1.2711E-37	3231.2963	23	3	20	24	2	23
816	1347.3990	7.6190E-42	6043.2505	31	5	26	32	4	29
817	1348.5828	1.7108E-35	3960.2870	24	6	18	24	5	19
818	1349.0934	2.0470E-39	4541.3957	27	4	23	28	3	26
819	1349.4894	2.9809E-38	5232.8920	27	9	18	27	8	19
820	1350.0505	1.7692E-39	5816.7948	29	8	21	29	7	22
821	1350.5464	3.9445E-41	6663.4154	31	9	22	31	8	23
822	1350.7234	3.7531E-34	3274.6114	22	5	17	22	4	18
823	1350.8619	7.3688E-37	2329.3504	20	2	18	21	1	21
824	1354.0851	1.2231E-33	3023.5306	21	6	16	21	5	17
825	1354.3967	7.4048E-34	3155.3797	21	7	15	21	6	16
826	1354.9419	4.2244E-38	4898.5327	27	7	21	26	8	18
827	1355.1200	3.8787E-42	6383.7637	32	5	27	33	4	30
828	1356.1403	1.2239E-37	3483.9149	24	3	21	25	2	24
829	1356.6455	2.5640E-37	4898.5327	26	9	17	26	8	18
830	1357.6444	1.3401E-39	4838.9619	28	4	24	29	3	27
831	1357.7419	6.2455E-38	5010.5806	27	7	20	27	6	21
832	1358.9150	4.6512E-34	3150.8613	21	7	15	20	8	12
833	1359.0319	9.7654E-34	2875.6047	21	4	17	21	3	18
834	1359.7505	1.1094E-34	3440.0672	21	9	13	20	10	10
835	1360.2675	5.5549E-35	3440.0388	21	9	12	20	10	11
836	1360.3265	1.0332E-34	3415.5475	22	7	16	22	6	17
837	1360.5680	3.6884E-37	2544.7674	21	2	19	22	1	22
838	1361.0664	2.5134E-34	3286.5533	21	8	14	20	9	11
839	1361.1881	1.2248E-41	7040.2094	32	9	23	32	8	24
840	1362.0899	1.9091E-33	2875.7639	21	5	17	21	4	18
841	1363.2445	1.6951E-34	3275.6670	22	6	17	22	5	18
842	1363.9126	1.8790E-36	4249.0071	25	6	19	25	5	20



843	1364.0132	1.2665E-37	4575.4410	26	7	20	25	8	17
844	1364.0449	5.9765E-40	6167.0543	30	8	22	30	7	23
845	1364.3319	4.7812E-35	3536.2135	23	5	18	23	4	19
846	1364.4121	5.3781E-43	7154.2131	33	9	25	32	9	23
847	1364.8319	5.1904E-37	4575.4410	25	9	16	25	8	17
848	1365.2407	2.5612E-38	3745.6738	25	3	22	26	2	25
849	1365.6453	1.2742E-34	3286.1966	21	8	13	20	9	12
850	1365.8862	2.0364E-40	5145.3990	29	4	25	30	3	28
851	1366.2160	6.4241E-35	3409.6580	22	7	16	21	8	13
852	1367.2464	5.4324E-35	3685.0099	23	7	17	23	6	18
853	1369.1327	3.7496E-31	2123.2642	21	0	21	20	1	20
854	1369.1327	7.4993E-31	2123.2642	21	1	21	20	0	20
855	1369.5639	3.7816E-34	3278.0558	21	8	14	21	7	15
856	1369.8789	1.4042E-36	4264.5062	25	7	19	24	8	16
857	1370.1242	4.7953E-37	2769.4820	22	2	20	23	1	23
858	1370.2513	5.5413E-34	3118.9135	22	4	18	22	3	19
859	1370.2810	1.5423E-33	2710.7454	21	3	18	21	2	19
860	1370.5872	3.0779E-33	2710.7545	21	4	18	21	3	19
861	1370.8205	3.1868E-35	3681.4358	23	7	17	22	8	14
862	1371.3328	5.4788E-35	3543.5956	22	8	15	22	7	16
863	1371.5922	1.7572E-35	3695.0402	22	9	14	21	10	11
864	1372.1270	2.7320E-34	3119.0009	22	5	18	22	4	19
865	1372.1543	3.5326E-36	3966.3911	24	7	18	23	8	15
866	1372.5127	3.8271E-35	3542.4157	22	8	15	21	9	12
867	1372.6485	3.5253E-35	3694.9716	22	9	13	21	10	12
868	1372.7585	8.9474E-35	3536.8270	23	6	18	23	5	19
869	1372.9843	3.9884E-36	4264.5062	24	9	15	24	8	16
870	1373.2418	2.3455E-38	5334.1599	28	7	21	28	6	22
871	1373.8265	1.1597E-40	5460.6546	30	4	26	31	3	29
872	1374.0637	2.9774E-35	3819.2560	23	8	16	23	7	17
873	1374.1158	1.9301E-38	4016.5319	26	3	23	27	2	26
874	1374.2899	7.5182E-42	7154.2131	32	10	22	32	9	23
875	1374.9685	2.2249E-41	6768.8682	31	10	21	31	9	22
876	1374.9906	6.7570E-36	3963.5548	24	7	18	24	6	19
877	1376.1579	2.1846E-42	6768.8682	32	8	25	31	9	22
878	1376.6684	2.5415E-33	2528.6669	21	2	19	21	1	20
879	1376.6881	5.0824E-33	2528.6672	21	3	19	21	2	20
880	1376.6997	2.9180E-31	2329.3504	22	0	22	21	1	21
881	1376.6997	1.4590E-31	2329.3504	22	1	22	21	0	21
882	1376.9180	2.3544E-35	3806.5778	24	5	19	24	4	20
883	1377.8245	3.8011E-36	4104.6678	24	8	17	24	7	18
884	1378.3423	8.0481E-37	4546.0432	26	6	20	26	5	21
885	1379.4976	2.4019E-40	6393.0849	30	10	20	30	9	21
886	1379.5360	1.2451E-37	3003.4597	23	2	21	24	1	24
887	1379.5712	4.9299E-41	6524.4734	31	8	23	31	7	24
888	1380.0535	3.7064E-33	2329.3504	21	1	20	21	0	21
889	1380.0543	7.4129E-33	2329.3504	21	2	20	21	1	21
890	1380.1518	9.2806E-34	2944.9367	22	3	19	22	2	20
891	1380.2617	7.2923E-36	3966.3911	23	9	14	23	8	15
892	1380.3275	4.6344E-34	2944.9415	22	4	19	22	3	20
893	1380.7414	7.8679E-35	3541.6569	22	8	14	21	9	13
894	1380.9336	7.5483E-35	3371.2672	23	4	19	23	3	20
895	1381.4705	1.5564E-41	5784.6737	31	4	27	32	3	30

896	1382.0740	1.4967E-34	3371.3154	23	5	19	23	4	20
897	1382.4532	1.1275E-35	3806.9332	24	6	19	24	5	20
898	1382.6123	1.8298E-36	4399.4976	25	8	18	25	7	19
899	1382.7694	3.3389E-39	4296.4464	27	3	24	28	2	27
900	1383.1677	2.1574E-35	3810.1519	23	8	16	22	9	13
901	1383.2863	1.0389E-35	3961.4722	23	9	15	22	10	12
902	1383.3677	3.1955E-36	4251.0174	25	7	19	25	6	20
903	1384.1537	5.4112E-32	2544.7674	23	0	23	22	1	22
904	1384.1537	1.0822E-31	2544.7674	23	1	23	22	0	22
905	1385.3357	5.2268E-36	3961.3170	23	9	14	22	10	13
906	1385.6105	2.6468E-34	3147.5807	21	7	14	20	8	13
907	1385.9707	1.6267E-33	2753.6354	22	2	20	22	1	21
908	1385.9815	8.1331E-34	2753.6356	22	3	20	22	2	21
909	1386.1843	5.0707E-35	3681.4358	22	9	13	22	8	14
910	1386.4778	6.0084E-40	6027.8034	29	10	19	29	9	20
911	1387.4221	3.3599E-41	6393.0849	31	8	24	30	9	21
912	1388.2642	2.1664E-39	5665.5751	29	7	22	29	6	23
913	1388.3585	2.0843E-37	4703.4576	26	8	19	26	7	20
914	1388.6143	2.7969E-36	4085.7165	25	5	20	25	4	21
915	1388.8077	1.1158E-37	3246.6645	24	2	22	25	1	25
916	1388.8240	7.9089E-42	6117.3987	32	4	28	33	3	31
917	1388.9188	2.5497E-33	2544.7674	22	1	21	22	0	22
918	1388.9192	1.2748E-33	2544.7674	22	2	21	22	1	22
919	1389.8009	1.3386E-34	3188.3031	23	3	20	23	2	21
920	1389.9020	2.6753E-34	3188.3057	23	4	20	23	3	21
921	1390.6483	8.3598E-35	3409.6580	21	9	12	21	8	13
922	1391.1871	3.9489E-35	3632.6386	24	4	20	24	3	21
923	1391.2034	2.1482E-39	4585.3727	28	3	25	29	2	28
924	1391.4969	3.8273E-32	2769.4820	24	0	24	23	1	23
925	1391.4969	1.9137E-32	2769.4820	24	1	24	23	0	23
926	1391.6770	8.3916E-38	4851.4674	27	6	21	27	5	22
927	1391.8771	1.9641E-35	3632.6652	24	5	20	24	4	21
928	1392.1840	3.6064E-37	4547.2702	26	7	20	26	6	21
929	1392.1897	5.4404E-36	4085.9222	25	6	20	25	5	21
930	1392.6279	2.8035E-36	4089.8644	24	8	17	23	9	14
931	1394.4863	5.6463E-39	5673.8882	28	10	18	28	9	19
932	1394.7206	1.4342E-36	4239.3146	24	9	16	23	10	13
933	1394.9452	9.0313E-38	5016.3074	27	8	20	27	7	21
934	1395.1386	2.4989E-34	2987.8572	23	2	21	23	1	22
935	1395.1445	4.9976E-34	2987.8573	23	3	21	23	2	22
936	1395.5034	1.3855E-35	3949.2551	23	9	15	23	8	16
937	1395.7140	2.4562E-35	3670.9184	22	9	14	22	8	15
938	1395.7618	1.8418E-36	4238.2735	24	9	16	24	8	17
939	1396.2214	1.6407E-34	3403.5963	21	9	13	21	8	14
940	1396.2392	1.5973E-41	6889.1757	32	8	24	32	7	25
941	1396.4172	1.1522E-31	2312.9867	21	1	20	20	2	19
942	1396.4185	2.3044E-31	2312.9861	21	2	20	20	1	19
943	1396.6535	9.2389E-37	4537.6139	25	9	17	25	8	18
944	1397.0535	1.2166E-40	6027.8034	30	8	23	29	9	20
945	1397.1715	1.1372E-35	3808.6295	23	8	15	22	9	14
946	1397.6909	4.2200E-34	2769.4820	23	1	22	23	0	23
947	1397.6911	8.4401E-34	2769.4820	23	2	22	23	1	23
948	1397.9425	2.2389E-38	3499.0591	25	2	23	26	1	26

949	1398.3186	1.0948E-37	4846.9078	26	9	18	26	8	19
950	1398.5075	2.9033E-36	4238.9830	24	9	15	23	10	14
951	1398.7318	6.4553E-33	3003.4597	25	0	25	24	1	24
952	1398.7319	1.2910E-32	3003.4597	25	1	25	24	0	24
953	1399.2473	7.4092E-35	3440.8080	24	3	21	24	2	22
954	1399.3056	3.7030E-35	3440.8093	24	4	21	24	3	22
955	1399.4177	3.2386E-40	4883.2645	29	3	26	30	2	29
956	1399.5804	1.2818E-36	4373.6190	26	5	21	26	4	22
957	1400.3938	1.3364E-36	4381.7162	25	8	18	24	9	15
958	1400.8660	4.9140E-38	5165.7951	27	9	19	27	8	20
959	1401.0861	4.9601E-36	3902.9933	25	4	21	25	3	22
960	1401.2617	1.5602E-37	4852.2129	27	7	21	27	6	22
961	1401.5027	9.8883E-36	3903.0080	25	5	21	25	4	22
962	1401.8644	6.2960E-37	4373.7381	26	6	21	26	5	22
963	1402.2314	9.3511E-39	5337.8514	28	8	21	28	7	22
964	1402.3239	1.2559E-38	5332.0301	27	10	17	27	9	18
965	1402.4451	7.8837E-40	6004.9252	30	7	23	30	6	24
966	1403.9461	3.4054E-38	5165.3109	28	6	22	28	5	23
967	1404.1312	1.6402E-39	5673.8882	29	8	22	28	9	19
968	1404.1760	1.4750E-34	3231.2962	24	2	22	24	1	23
969	1404.1794	7.3750E-35	3231.2963	24	3	22	24	2	23
970	1404.3830	5.2380E-39	5493.9383	28	9	20	28	8	21
971	1405.0189	8.5662E-32	2528.6672	22	1	21	21	2	20
972	1405.0196	4.2831E-32	2528.6669	22	2	21	21	1	20
973	1405.7277	7.3979E-37	4528.5396	25	9	17	24	10	14
974	1405.8622	4.1555E-33	3246.6645	26	0	26	25	1	25
975	1405.8622	2.0777E-33	3246.6645	26	1	26	25	0	25
976	1405.9006	1.4510E-37	4685.9154	26	8	19	25	9	16
977	1406.3740	2.6908E-34	3003.4597	24	1	23	24	0	24
978	1406.3741	1.3454E-34	3003.4597	24	2	23	24	1	24
979	1406.8783	1.6307E-34	3403.5963	22	7	15	21	8	14
980	1406.9431	1.6433E-38	3760.6044	26	2	24	27	1	27
981	1407.4116	1.8411E-40	5190.0732	30	3	27	31	2	30
982	1408.0527	5.0765E-39	5332.0301	28	8	21	27	9	18
983	1408.5024	9.8422E-36	3702.4120	25	3	22	25	2	23
984	1408.5362	1.9680E-35	3702.4128	25	4	22	25	3	23
985	1408.5938	5.7085E-38	5002.6587	27	8	20	26	9	17
986	1408.9646	2.1283E-39	5831.0332	29	9	21	29	8	22
987	1409.1905	1.0615E-37	5002.6587	26	10	16	26	9	17
988	1409.9555	1.4166E-37	4670.2591	27	5	22	27	4	23
989	1410.0874	3.7202E-39	5667.9320	29	8	22	29	7	23
990	1410.4525	1.6232E-38	5165.7628	28	7	22	28	6	23
991	1410.6794	2.3948E-36	4182.2918	26	4	22	26	3	23
992	1410.9308	1.1950E-36	4182.3000	26	5	22	26	4	23
993	1411.4041	2.8015E-37	4670.3283	27	6	22	27	5	23
994	1412.4052	3.7834E-37	4527.8677	25	9	16	24	10	15
995	1412.8926	1.2766E-33	3499.0591	27	1	27	26	0	26
996	1412.8926	6.3831E-34	3499.0591	27	0	27	26	1	26
997	1413.0867	2.0927E-35	3483.9149	25	2	23	25	1	24
998	1413.0886	4.1853E-35	3483.9149	25	3	23	25	2	24
999	1413.5373	1.5168E-32	2753.6356	23	1	22	22	2	21
1000	1413.5377	3.0335E-32	2753.6354	23	2	22	22	1	21
1001	1414.7248	2.1322E-37	4685.9154	25	10	15	25	9	16

1002	1414.7587	2.0663E-40	6176.8140	30	9	22	30	8	23
1003	1414.9728	4.1341E-35	3246.6645	25	1	24	25	0	25
1004	1414.9728	8.2682E-35	3246.6645	25	2	24	25	1	25
1005	1415.1832	2.4769E-41	5505.7486	31	3	28	32	2	31
1006	1415.2171	6.1838E-36	4086.9740	24	8	16	23	9	15
1007	1415.2908	3.3619E-39	5487.5739	29	6	23	29	5	24
1008	1415.7877	7.0575E-41	6352.2647	31	7	24	31	6	25
1009	1415.8119	2.7938E-39	4031.2603	27	2	25	28	1	28
1010	1416.0763	8.9011E-38	4829.1501	26	9	18	25	10	15
1011	1417.5736	5.0243E-36	3973.0740	26	3	23	26	2	24
1012	1417.5933	2.5118E-36	3973.0744	26	4	23	26	3	24
1013	1418.4362	3.5701E-40	6006.4208	30	8	23	30	7	24
1014	1418.9130	1.6280E-36	4381.7162	24	10	14	24	9	15
1015	1419.5546	3.8168E-32	2485.7808	21	2	19	20	3	18
1016	1419.5919	7.6340E-32	2485.7634	21	3	19	20	2	18
1017	1419.6471	6.5197E-39	5487.8478	29	7	23	29	6	24
1018	1419.8286	1.8723E-34	3760.6044	28	1	28	27	0	27
1019	1419.8286	3.7445E-34	3760.6044	28	0	28	27	1	27
1020	1419.8456	6.0456E-38	4975.6001	28	5	23	28	4	24
1021	1419.9982	2.7800E-37	4470.4909	27	4	23	27	3	24
1022	1420.1502	5.5534E-37	4470.4955	27	5	23	27	4	24
1023	1420.7604	3.0014E-38	4975.6404	28	6	23	28	5	24
1024	1421.7254	2.4242E-38	5309.9125	27	10	18	27	9	19
1025	1421.8737	1.1426E-35	3745.6738	26	2	24	26	1	25
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1027	1421.9353	2.9509E-36	4089.8644	23	10	13	23	9	14
1028	1421.9765	1.0238E-32	2987.8573	24	1	23	23	2	22
1029	1421.9767	5.1191E-33	2987.8572	24	2	23	23	1	22
1030	1422.0149	7.6815E-41	6531.0536	31	9	23	31	8	24
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1032	1422.0788	2.6996E-39	5641.6555	28	10	19	28	9	20
1033	1422.7301	1.2656E-41	5830.2379	32	3	29	33	2	32
1034	1422.7914	4.1832E-37	4677.0295	25	10	16	25	9	17
1035	1423.4923	2.4503E-35	3499.0591	26	1	25	26	0	26
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1037	1423.5380	1.1408E-39	5983.1483	29	10	20	29	9	21
1038	1423.6647	5.9963E-34	3023.0262	21	6	15	20	7	14
1039	1423.6946	8.0345E-37	4376.5135	24	10	15	24	9	16
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1041	1424.5513	1.7756E-39	4310.9851	28	2	26	29	1	29
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1043	1425.4294	3.3074E-35	3542.4157	21	10	11	21	9	12
1044	1425.4595	1.0100E-35	3808.6295	22	10	13	22	9	14
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1046	1425.8937	1.2928E-39	5818.2347	30	6	24	30	5	25
1047	1426.1460	6.5972E-35	3541.6569	21	10	12	21	9	13
1048	1426.4654	6.1658E-37	4252.7504	27	3	24	27	2	25
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1050	1426.6499	1.1412E-40	6334.0458	30	10	21	30	9	22
1051	1426.6775	5.2449E-35	4031.2603	29	0	29	28	1	28
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1053	1427.2966	1.3266E-40	6353.2104	31	8	24	31	7	25
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1055	1428.6042	2.4804E-41	6707.6101	32	7	25	32	6	26
1056	1428.7843	6.3391E-40	5818.4009	30	7	24	30	6	25
1057	1428.8517	2.7230E-32	2710.7545	22	2	20	21	3	19
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1059	1429.0625	1.2429E-37	4767.5437	28	4	24	28	3	25
1060	1429.1545	6.2098E-38	4767.5464	28	5	24	28	4	25
1061	1429.3282	6.2344E-39	5289.5973	29	5	24	29	4	25
1062	1429.5266	2.4005E-35	3670.9184	23	7	16	22	8	15
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1064	1430.3410	1.6473E-33	3231.2963	25	1	24	24	2	23
1065	1430.3411	3.2945E-33	3231.2962	25	2	24	24	1	23
1066	1430.5404	1.5018E-36	4016.5319	27	2	25	27	1	26
1067	1430.5410	3.0037E-36	4016.5319	27	3	25	27	2	26
1068	1431.1121	6.8311E-42	6893.5606	32	9	24	32	8	25
1069	1431.9384	3.5039E-36	3760.6044	27	1	26	27	0	27
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1071	1432.0851	4.3082E-41	6694.0121	31	10	22	31	9	23
1072	1433.1636	2.6519E-40	4599.7353	29	2	27	30	1	30
1073	1433.4483	1.4037E-35	4310.9851	30	1	30	29	0	29
1074	1433.4483	2.8073E-35	4310.9851	30	0	30	29	1	29
1075	1433.5685	4.1390E-39	5464.7528	28	9	20	27	10	17
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1077	1435.1805	2.9134E-37	4541.3956	28	3	25	28	2	26
1078	1435.1873	1.4566E-37	4541.3957	28	4	25	28	3	26
1079	1435.9534	1.2115E-40	6157.2558	31	6	25	31	5	26
1080	1436.8191	1.1949E-41	6708.2070	32	8	25	32	7	26
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1082	1437.8847	1.3392E-38	5073.4005	29	4	25	29	3	26
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1084	1438.0543	4.6232E-33	2944.9415	23	2	21	22	3	20
1085	1438.0651	9.2467E-33	2944.9367	23	3	21	22	2	20
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1087	1438.6365	1.0112E-33	3483.9149	26	1	25	25	2	24
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1090	1439.0900	7.6097E-37	4296.4464	28	2	26	28	1	27
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1092	1439.3786	1.3482E-32	2641.6479	21	3	18	20	4	17
1093	1439.9836	2.6985E-32	2641.3581	21	4	18	20	3	17
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1095	1440.1521	3.5899E-36	4599.7353	31	0	31	30	1	30
1096	1440.1521	7.1798E-36	4599.7353	31	1	31	30	0	30
1097	1440.3176	1.9352E-36	4031.2603	28	1	27	28	0	28
1098	1440.3176	9.6758E-37	4031.2603	28	2	27	28	1	28
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1100	1441.6511	1.4967E-40	4897.4666	30	2	28	31	1	31
1101	1443.5778	2.1424E-38	5138.8035	27	9	18	26	10	17
1102	1443.7204	3.3162E-38	4838.9618	29	3	26	29	2	27
1103	1443.7244	6.6323E-38	4838.9619	29	4	26	29	3	27
1104	1444.5474	1.3888E-40	6147.0253	30	9	22	29	10	19
1105	1445.6911	4.4314E-41	6504.5877	32	6	26	32	5	27
1106	1446.4728	5.5737E-39	5388.0082	30	4	26	30	3	27
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1108	1446.8023	1.7553E-36	4897.4666	32	1	32	31	1	31
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1110	1446.8690	1.4806E-34	3745.6738	27	1	26	26	2	25
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1112	1446.8743	3.9833E-34	3278.0558	22	6	16	21	7	15
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1114	1447.0485	4.4344E-41	6506.0199	31	9	23	30	10	20
1115	1447.0824	8.4350E-43	7259.6400	33	10	24	32	10	22
1116	1447.1666	2.9906E-33	3188.3057	24	2	22	23	3	21
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1118	1447.2964	2.4113E-40	5943.3531	31	5	26	31	4	27
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1123	1448.6376	2.5810E-37	4310.9851	29	1	28	29	0	29
1124	1448.6376	5.1620E-37	4310.9851	29	2	28	29	1	29
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1127	1450.0163	2.0015E-41	5204.1326	31	2	29	32	1	32
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1132	1453.4156	2.0517E-37	5204.1326	33	2	32	32	1	32
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1134	1454.1183	4.9435E-33	2780.5183	21	4	17	20	5	16
1135	1454.8331	5.6098E-40	5711.3111	31	4	27	31	3	28
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1137	1455.0461	8.2775E-35	4016.5319	28	1	27	27	2	26
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1139	1455.8532	4.3862E-38	4883.2645	30	2	28	30	1	29
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1141	1455.8878	9.0807E-41	6282.9959	32	5	27	32	4	28
1142	1456.0310	4.5358E-41	6283.0007	32	6	27	32	5	28
1143	1456.1922	4.6087E-34	3440.8093	25	2	23	24	3	22
1144	1456.1955	9.2174E-34	3440.8080	25	3	23	24	2	22
1145	1456.3220	3.9033E-37	4677.0295	26	8	18	25	9	17
1146	1456.9071	1.3305E-37	4599.7353	30	1	29	30	0	30
1147	1456.9071	6.6525E-38	4599.7353	30	2	29	30	1	30
1148	1458.2619	1.0174E-41	5519.6857	32	2	30	33	1	33
1149	1459.1032	1.5201E-33	3119.0009	23	3	20	22	4	19
1150	1459.2942	3.0410E-33	3118.9135	23	4	20	22	3	19
1151	1460.2772	1.5454E-39	5460.6545	31	3	28	31	2	29
1152	1460.2786	3.0909E-39	5460.6546	31	4	28	31	3	29
1153	1460.3858	9.9516E-33	2777.4679	21	5	17	20	4	16
1154	1461.4312	9.3632E-39	5460.5514	28	9	19	27	10	18
1155	1462.9725	2.1889E-40	6043.2502	32	4	28	32	3	29
1156	1462.9849	1.0943E-40	6043.2505	32	5	28	32	4	29
1157	1463.1763	1.1046E-35	4296.4464	29	1	28	28	2	27
1158	1463.1763	2.2092E-35	4296.4464	29	2	28	28	1	27
1159	1464.0756	4.9974E-39	5190.0732	31	2	29	31	1	30
1160	1464.0757	9.9948E-39	5190.0732	31	3	29	31	2	30

1161	1465.1348	2.7086E-34	3702.4128	26	2	24	25	3	23
1162	1465.1364	1.6572E-38	4897.4666	31	1	30	31	0	31
1163	1465.1364	3.3144E-38	4897.4666	31	2	30	31	1	31
1164	1465.1365	1.3543E-34	3702.4120	26	3	24	25	2	23
1165	1465.6342	3.3319E-33	3023.5306	22	4	18	21	5	17
1166	1468.2944	6.3438E-40	5784.6737	32	3	29	32	2	30
1167	1468.2952	3.1719E-40	5784.6737	32	4	29	32	3	30
1168	1468.7399	9.4690E-34	3371.3154	24	3	21	23	4	20
1169	1468.8476	4.7352E-34	3371.2672	24	4	21	23	3	20
1170	1469.0422	6.3240E-35	3543.5956	23	6	17	22	7	16
1171	1469.4016	1.6725E-33	3021.7263	22	5	18	21	4	17
1172	1469.9552	1.1827E-33	3155.3797	22	5	17	21	6	16
1173	1471.2698	5.6315E-36	4585.3727	30	1	29	29	2	28
1174	1471.2698	2.8158E-36	4585.3727	30	2	29	29	1	28
1175	1472.1990	2.2017E-39	5505.7486	32	2	30	32	1	31
1176	1472.1991	1.1008E-39	5505.7486	32	3	30	32	2	31
1177	1473.3373	7.9808E-39	5204.1326	32	1	31	32	0	32
1178	1473.3373	3.9904E-39	5204.1326	32	2	31	32	1	32
1179	1473.9979	3.7961E-35	3973.0744	27	2	25	26	3	24
1180	1473.9989	7.5923E-35	3973.0740	27	3	25	26	2	24
1181	1476.5339	5.3106E-34	3275.6670	23	4	19	22	5	18
1182	1476.5530	1.8537E-36	4238.2735	25	7	18	24	8	17
1183	1478.2493	1.4041E-34	3632.6652	25	3	22	24	4	21
1184	1478.3104	2.8085E-34	3632.6386	25	4	22	24	3	21
1185	1478.7780	1.0646E-33	3274.6114	23	5	19	22	4	18
1186	1478.8392	4.5932E-38	4988.2618	27	8	19	26	9	18
1187	1479.3385	6.8578E-37	4883.2645	31	1	30	30	2	29
1188	1479.3385	1.3716E-36	4883.2645	31	2	30	30	1	29
1189	1481.0372	9.7186E-40	5792.9005	29	9	20	28	10	19
1190	1482.7858	2.0307E-35	4252.7506	28	2	26	27	3	25
1191	1482.7863	1.0154E-35	4252.7504	28	3	26	27	2	25
1192	1484.9979	1.8852E-34	3415.5475	23	5	18	22	6	17
1193	1486.9987	3.2110E-34	3536.8270	24	4	20	23	5	19
1194	1487.3967	3.1926E-37	5190.0732	32	1	31	31	2	30
1195	1487.3967	1.5963E-37	5190.0732	32	2	31	31	1	30
1196	1487.6396	7.9359E-35	3903.0080	26	3	23	25	4	22
1197	1487.6744	3.9681E-35	3902.9933	26	4	23	25	3	22
1198	1488.3288	1.6078E-34	3536.2135	24	5	20	23	4	19
1199	1489.6137	3.8150E-35	3819.2560	24	6	18	23	7	17
1200	1491.5032	2.5925E-36	4541.3957	29	2	27	28	3	26
1201	1491.5035	5.1850E-36	4541.3956	29	3	27	28	2	26
1202	1491.6834	3.6093E-33	2885.9323	21	6	16	20	5	15
1203	1495.4608	3.5523E-38	5505.7486	33	2	31	32	2	31
1204	1496.2370	6.0530E-34	3142.6745	22	6	17	21	5	16
1205	1496.9158	1.0691E-35	4182.3000	27	3	24	26	4	23
1206	1496.9357	2.1382E-35	4182.2918	27	4	24	26	3	23
1207	1497.1462	4.6119E-35	3806.9332	25	4	21	24	5	20
1208	1497.9329	9.2318E-35	3806.5778	25	5	21	24	4	20
1209	1498.4859	1.1293E-34	3685.0099	24	5	19	23	6	18
1210	1499.5717	9.7296E-37	4537.6139	26	7	19	25	8	18
1211	1500.1558	1.2642E-36	4838.9619	30	2	28	29	3	27
1212	1500.1560	6.3211E-37	4838.9618	30	3	28	29	2	27
1213	1501.9887	2.0828E-38	5309.9125	28	8	20	27	9	19

1214	1502.3105	3.8258E-34	3407.2750	23	6	18	22	5	17
1215	1502.4171	3.8516E-40	6135.6195	30	9	21	29	10	20
1216	1506.0806	5.4955E-36	4470.4955	28	3	25	27	4	24
1217	1506.0921	2.7478E-36	4470.4909	28	4	25	27	3	24
1218	1507.0490	2.5211E-35	4085.9222	26	4	22	25	5	21
1219	1507.5143	1.2612E-35	4085.7165	26	5	22	25	4	21
1220	1508.2519	5.4354E-36	4104.6678	25	6	19	24	7	18
1221	1508.7499	1.4723E-37	5145.3990	31	2	29	30	3	28
1222	1508.7500	2.9447E-37	5145.3989	31	3	29	30	2	28
1223	1509.6237	5.6987E-35	3679.7627	24	6	19	23	5	18
1224	1510.7759	1.5951E-35	3963.5548	25	5	20	24	6	19
1225	1515.1359	6.7401E-37	4767.5464	29	3	26	28	4	25
1226	1515.1425	1.3480E-36	4767.5437	29	4	26	28	3	25
1227	1516.7510	3.2817E-36	4373.7381	27	4	23	26	5	22
1228	1517.0267	6.5654E-36	4373.6190	27	5	23	26	4	22
1229	1517.2930	6.5545E-38	5460.6546	32	2	30	31	3	29
1230	1517.2931	3.2772E-38	5460.6545	32	3	30	31	2	29
1231	1517.8250	3.2090E-35	3960.2870	25	6	20	24	5	19
1232	1521.4146	1.2232E-37	4846.9078	27	7	20	26	8	19
1233	1522.1820	8.5308E-36	4251.0174	26	5	21	25	6	20
1234	1524.0829	3.1572E-37	5073.4020	30	3	27	29	4	26
1235	1524.0868	1.5786E-37	5073.4005	30	4	27	29	3	26
1236	1524.8879	2.9182E-36	4399.4976	26	6	20	25	7	19
1237	1525.1899	2.2769E-39	5641.6555	29	8	21	28	9	20
1238	1525.5184	3.6581E-41	6488.4434	31	9	22	30	10	21
1239	1525.7941	6.9734E-39	5784.6737	33	3	30	32	3	30
1240	1526.2780	1.6289E-36	4670.3283	28	4	24	27	5	23
1241	1526.4418	8.1460E-37	4670.2591	28	5	24	27	4	23
1242	1526.5954	4.2814E-36	4249.0071	26	6	21	25	5	20
1243	1532.9227	3.5316E-38	5388.0091	31	3	28	30	4	27
1244	1532.9250	7.0633E-38	5388.0082	31	4	28	30	3	27
1245	1532.9444	1.0827E-36	4547.2702	27	5	22	26	6	21
1246	1535.6448	1.9283E-37	4975.6404	29	4	25	28	5	24
1247	1535.6892	2.1705E-36	4546.0432	27	6	22	26	5	21
1248	1535.7424	3.8570E-37	4975.6001	29	5	25	28	4	24
1249	1539.6869	3.6910E-37	4703.4576	27	6	21	26	7	20
1250	1541.6066	5.8628E-38	5165.7951	28	7	21	27	8	20
1251	1541.6564	1.5100E-38	5711.3116	32	3	29	31	4	28
1252	1541.6578	7.5500E-39	5711.3111	32	4	29	31	3	28
1253	1543.2327	5.2275E-37	4852.2129	28	5	23	27	6	22
1254	1544.8601	8.7157E-38	5289.6209	30	4	26	29	5	25
1255	1544.9184	4.3582E-38	5289.5973	30	5	26	29	4	25
1256	1544.9334	2.6177E-37	4851.4674	28	6	23	27	5	22
1257	1545.1926	1.3423E-34	3507.0637	23	7	17	22	6	16
1258	1545.2192	2.1814E-34	3230.6548	22	7	16	21	6	15
1259	1545.7240	1.3737E-33	2964.0523	21	7	15	20	6	14
1260	1546.2726	1.9829E-35	3792.2728	24	7	18	23	6	17
1261	1547.9508	9.5829E-40	5983.1483	30	8	22	29	9	21
1262	1548.8664	1.1153E-35	4085.5187	25	7	19	24	6	18
1263	1550.2859	1.5429E-39	6043.2505	33	4	29	32	4	29
1264	1550.3196	1.3357E-41	6851.0780	32	9	23	31	10	22
1265	1552.9495	1.7639E-37	5016.3074	28	6	22	27	7	21
1266	1553.0856	1.4844E-36	4386.3686	26	7	20	25	6	19



1267	1553.1627	6.0108E-38	5165.7628	29	5	24	28	6	23
1268	1553.9301	9.4063E-39	5612.2141	31	4	27	30	5	26
1269	1553.9650	1.8813E-38	5612.2002	31	5	27	30	4	26
1270	1554.2146	1.2033E-37	5165.3109	29	6	24	28	5	23
1271	1558.7761	7.4688E-37	4694.6985	27	7	21	26	6	20
1272	1559.9010	6.6665E-39	5493.9383	29	7	22	28	8	21
1273	1562.8140	2.6366E-38	5487.8478	30	5	25	29	6	24
1274	1562.8614	3.8803E-39	5943.3613	32	4	28	31	5	27
1275	1562.8823	1.9402E-39	5943.3531	32	5	28	31	4	27
1276	1563.4643	1.3191E-38	5487.5739	30	6	25	29	5	24
1277	1565.0133	1.9966E-38	5337.8514	29	6	23	28	7	22
1278	1565.6348	8.8896E-38	5010.5806	28	7	22	27	6	21
1279	1569.9988	9.6702E-41	6334.0458	31	8	23	30	9	22
1280	1571.6646	3.8257E-40	6283.0007	33	5	28	32	5	28
1281	1572.2486	2.7600E-39	5818.4009	31	5	26	30	6	25
1282	1572.6509	5.5221E-39	5818.2347	31	6	26	30	5	25
1283	1573.3350	4.0145E-38	5334.1599	29	7	23	28	6	22
1284	1576.1964	8.5877E-39	5667.9320	30	6	24	29	7	23
1285	1576.3371	2.8711E-39	5831.0332	30	7	23	29	8	22
1286	1576.9202	1.1726E-42	7223.2067	33	10	23	32	10	23
1287	1581.5269	1.1040E-39	6157.3567	32	5	27	31	6	26
1288	1581.6101	4.3093E-39	5665.5751	30	7	24	29	6	23
1289	1581.7759	5.5216E-40	6157.2558	32	6	27	31	5	26
1290	1586.7884	8.7927E-40	6006.4208	31	6	25	30	7	24
1291	1590.2934	1.7629E-39	6004.9252	31	7	25	30	6	24
1292	1590.7229	1.0555E-40	6504.6493	33	6	27	32	6	27
1293	1591.2385	2.9280E-40	6176.8140	31	7	24	30	8	23
1294	1591.4028	3.7304E-41	6694.0121	32	8	24	31	9	23
1295	1597.0684	3.4352E-40	6353.2104	32	6	26	31	7	25
1296	1599.3337	1.7205E-40	6352.2647	32	7	26	31	6	25
1297	1602.1484	2.5197E-37	4809.1042	27	8	20	26	7	19
1298	1602.4657	2.9925E-38	5137.6172	28	8	21	27	7	20
1299	1603.1095	5.0826E-37	4488.7066	26	8	19	25	7	18
1300	1604.3962	1.3535E-38	5473.6233	29	8	22	28	7	21
1301	1604.8113	3.9591E-36	4177.2987	25	8	18	24	7	17
1302	1605.1607	1.1339E-40	6531.0536	32	7	25	31	8	24
1303	1605.3533	6.8046E-34	3042.2664	21	8	14	20	7	13
1304	1606.5837	7.4873E-36	3875.9087	24	8	17	23	7	16
1305	1607.3343	3.2056E-41	6708.2070	33	7	26	32	7	26
1306	1607.4800	9.8602E-35	3307.4484	22	8	15	21	7	14
1307	1607.7044	5.5138E-35	3585.6153	23	8	16	22	7	15
1308	1608.0622	1.4521E-39	5816.7948	30	8	23	29	7	22
1309	1612.6268	3.4313E-42	7062.7313	33	9	24	32	9	24
1310	1613.4528	5.9102E-40	6167.0543	31	8	24	30	7	23
1311	1618.8162	1.0451E-41	6893.5606	33	8	25	32	8	25
1312	1620.5527	5.7136E-41	6524.4734	32	8	25	31	7	24
1313	1628.4180	3.2808E-34	2904.7733	21	7	14	20	6	15
1314	1628.8158	3.0571E-34	3023.0262	21	8	13	20	7	14
1315	1644.3424	1.6122E-34	3278.0558	22	8	14	21	7	15
1316	1648.9564	3.5210E-34	3150.8613	21	9	13	20	8	12
1317	1652.7256	1.7383E-34	3147.5807	21	9	12	20	8	13
1318	1655.0949	1.4676E-34	3155.3797	22	7	15	21	6	16
1319	1656.9744	5.0662E-35	3409.6580	22	9	14	21	8	13

1320	1659.4326	1.9432E-40	6293.6359	31	9	23	30	8	22
1321	1660.1592	4.7963E-40	5931.4135	30	9	22	29	8	21
1322	1661.2572	1.8895E-41	6663.4154	32	9	24	31	8	23
1323	1662.2054	1.9331E-35	3543.5956	23	8	15	22	7	16
1324	1662.4764	4.5710E-39	5577.5213	29	9	21	28	8	20
1325	1663.3227	2.7572E-35	3681.4358	23	9	15	22	8	14
1326	1664.0238	9.8811E-35	3403.5963	22	9	13	21	8	14
1327	1665.4293	1.0563E-38	5232.8920	28	9	20	27	8	19
1328	1666.1725	2.0192E-34	2780.5183	21	6	15	20	5	16
1329	1667.6442	3.5588E-36	3966.3911	24	9	16	23	8	15
1330	1668.1284	9.4952E-38	4898.5327	27	9	19	26	8	18
1331	1669.7612	1.7526E-36	4264.5062	25	9	17	24	8	16
1332	1669.7854	2.0736E-37	4575.4410	26	9	18	25	8	17
1333	1675.7343	1.3138E-35	3670.9184	23	9	14	22	8	15
1334	1681.2496	1.6473E-34	3286.5533	21	10	12	20	9	11
1335	1681.6485	8.2242E-35	3286.1966	21	10	11	20	9	12
1336	1682.9350	8.3875E-36	3819.2560	24	8	16	23	7	17
1337	1684.8975	1.5145E-35	3415.5475	23	7	16	22	6	17
1338	1688.2354	6.5048E-36	3949.2551	24	9	15	23	8	16
1339	1691.6732	2.3834E-35	3542.4157	22	10	13	21	9	12
1340	1692.5280	4.7511E-35	3541.6569	22	10	12	21	9	13
1341	1701.3995	9.0394E-35	3023.5306	22	6	16	21	5	17
1342	1701.4415	1.3044E-35	3810.1519	23	10	14	22	9	13
1343	1701.9994	7.4471E-37	4238.2735	25	9	16	24	8	17
1344	1703.1702	6.4777E-36	3808.6295	23	10	13	22	9	14
1345	1706.8294	8.2349E-37	4104.6678	25	8	17	24	7	18
1346	1710.3437	1.6887E-36	4089.8644	24	10	15	23	9	14
1347	1713.6551	3.3318E-36	4086.9740	24	10	14	23	9	15
1348	1716.1681	1.4902E-34	2641.6479	21	5	16	20	4	17
1349	1717.2221	5.8735E-36	3685.0099	24	7	17	23	6	18
1350	1717.5644	3.1298E-37	4537.6139	26	9	17	25	8	18
1351	1718.1048	8.2806E-37	4381.7162	25	10	16	24	9	15
1352	1724.1268	4.0344E-37	4376.5135	25	10	15	24	9	16
1353	1724.4095	9.6263E-38	4685.9154	26	10	17	25	9	16
1354	1728.9791	4.2563E-38	5002.6587	27	10	18	26	9	17
1355	1731.7041	4.4940E-39	5332.0301	28	10	19	27	9	18
1356	1732.7981	1.8246E-39	5673.8882	29	10	20	28	9	19
1357	1732.8922	1.7936E-40	6027.8034	30	10	21	29	9	20
1358	1733.0122	6.8707E-41	6393.0849	31	10	22	30	9	21
1359	1733.8539	2.9482E-37	4399.4976	26	8	18	25	7	19
1360	1734.4516	6.4284E-42	6768.8682	32	10	23	31	9	22
1361	1734.8196	1.8354E-37	4677.0295	26	10	16	25	9	17
1362	1735.4735	2.9948E-38	4846.9078	27	9	18	26	8	19
1363	1736.9708	9.8949E-36	3275.6670	23	6	17	22	5	18
1364	1746.0922	1.9541E-38	4988.2618	27	10	17	26	9	18
1365	1748.8558	1.6244E-34	2485.7808	21	4	17	20	3	18
1366	1749.5710	7.7515E-35	2875.7639	22	5	17	21	4	18
1367	1751.2717	5.4285E-37	3963.5548	25	7	18	24	6	19
1368	1756.1875	1.0387E-38	5165.7951	28	9	19	27	8	20
1369	1758.4620	7.7570E-39	5309.9125	28	10	18	27	9	19
1370	1763.6434	2.4317E-38	4703.4576	27	8	19	26	7	20
1371	1768.0397	2.0604E-34	2312.9867	21	3	18	20	2	19
1372	1772.0428	4.2431E-36	3536.8270	24	6	18	23	5	19

1373	1772.6258	7.1484E-40	5641.6555	29	10	19	28	9	20
1374	1778.4103	9.5763E-35	2710.7545	22	4	18	21	3	19
1375	1779.9994	8.1611E-40	5493.9383	29	9	20	28	8	21
1376	1781.5445	9.8469E-36	3119.0009	23	5	18	22	4	19
1377	1782.0712	2.2766E-34	2123.2642	21	2	19	20	1	20
1378	1786.1682	1.9292E-37	4251.0174	26	7	19	25	6	20
1379	1789.4342	2.4442E-40	5983.1483	30	10	20	29	9	21
1380	1795.5938	7.4682E-39	5016.3074	28	8	20	27	7	21
1381	1796.4213	1.3627E-34	2528.6672	22	3	19	21	2	20
1382	1805.9865	4.4429E-37	3806.9332	25	6	19	24	5	20
1383	1807.0034	2.3410E-40	5831.0332	30	9	21	29	8	22
1384	1807.2594	1.3752E-35	2944.9415	23	4	19	22	3	20
1385	1809.7909	1.9487E-41	6334.0458	31	10	21	30	9	22
1386	1810.2558	1.6978E-34	2329.3504	22	2	20	21	1	21
1387	1812.1804	4.8745E-36	3371.3154	24	5	19	23	4	20
1388	1821.0523	1.6506E-38	4547.2702	27	7	20	26	6	21
1389	1824.4685	2.2045E-35	2753.6356	23	3	20	22	2	21
1390	1828.9939	5.3671E-40	5337.8514	29	8	21	28	7	22
1391	1834.4909	5.8891E-42	6694.0121	32	10	22	31	9	23
1392	1835.5201	7.7037E-36	3188.3057	24	4	20	23	3	21
1393	1837.1479	1.5560E-41	6176.8140	31	9	22	30	8	23
1394	1838.2284	3.1035E-35	2544.7674	23	2	21	22	1	22
1395	1838.4633	1.8096E-37	4085.9222	26	6	20	25	5	21
1396	1841.6656	5.8688E-37	3632.6652	25	5	20	24	4	21
1397	1852.1980	1.3968E-35	2987.8573	24	3	21	23	2	22
1398	1855.1888	5.4191E-39	4852.2129	28	7	21	27	6	22
1399	1863.1671	1.4446E-40	5667.9320	30	8	22	29	7	23
1400	1863.2700	1.0532E-36	3440.8093	25	4	21	24	3	22
1401	1865.9903	2.2227E-35	2769.4820	24	2	22	23	1	23
1402	1869.4063	1.7842E-38	4373.7381	27	6	21	26	5	22
1403	1870.1914	2.7480E-37	3903.0080	26	5	21	25	4	22
1404	1870.3439	3.9352E-42	6531.0536	32	9	23	31	8	24
1405	1879.6182	2.1668E-36	3231.2963	25	3	22	24	2	23
1406	1888.0765	4.2334E-40	5165.7628	29	7	22	28	6	23
1407	1890.5584	5.6268E-37	3702.4128	26	4	22	25	3	23
1408	1893.5419	3.8918E-36	3003.4597	25	2	23	24	1	24
1409	1897.6238	9.0857E-42	6006.4208	31	8	23	30	7	24
1410	1897.9145	3.1273E-38	4182.3000	27	5	22	26	4	23
1411	1898.9286	6.7867E-39	4670.3283	28	6	22	27	5	23
1412	1906.7327	1.3161E-36	3483.9149	26	3	23	25	2	24
1413	1917.4147	7.3463E-38	3973.0744	27	4	23	26	3	24
1414	1919.5225	1.2469E-40	5487.8478	30	7	23	29	6	24
1415	1920.8830	2.6600E-36	3246.6645	26	2	24	25	1	25
1416	1924.9501	1.3842E-38	4470.4955	28	5	23	27	4	24
1417	1927.2243	6.2031E-40	4975.6404	29	6	23	28	5	24
1418	1932.2044	2.1458E-42	6353.2104	32	8	24	31	7	25
1419	1933.5420	1.9542E-37	3745.6738	27	3	24	26	2	25
1420	1943.8557	3.7506E-38	4252.7506	28	4	24	27	3	25
1421	1948.0132	4.4248E-37	3499.0591	27	2	25	26	1	26
1422	1949.6516	8.5761E-42	5818.4009	31	7	24	30	6	25
1423	1951.3792	1.4897E-39	4767.5464	29	5	24	28	4	25
1424	1954.5075	2.1733E-40	5289.6209	30	6	24	29	5	25
1425	1960.0442	1.1331E-37	4016.5319	28	3	25	27	2	26

1426	1969.8895	4.6779E-39	4541.3957	29	4	25	28	3	26
1427	1974.9320	2.8592E-37	3760.6044	28	2	26	27	1	27
1428	1977.2598	6.2384E-40	5073.4020	30	5	25	29	4	26
1429	1978.8575	2.1941E-42	6157.3567	32	7	25	31	6	26
1430	1980.9951	1.8207E-41	5612.2141	31	6	25	30	5	26
1431	1986.2359	1.6006E-38	4296.4464	29	3	26	28	2	27
1432	1995.5192	2.2785E-39	4838.9619	30	4	26	29	3	27
1433	2001.6386	4.4743E-38	4031.2603	29	2	27	28	1	28
1434	2002.6405	6.3551E-41	5388.0091	31	5	26	30	4	27
1435	2006.9176	5.8371E-42	5943.3613	32	6	26	31	5	27
1436	2012.1121	8.7928E-39	4585.3727	30	3	27	29	2	28
1437	2020.7452	2.7051E-40	5145.3990	31	4	27	30	3	28
1438	2027.5721	2.5209E-41	5711.3116	32	5	27	31	4	28
1439	2028.1326	2.7069E-38	4310.9851	30	2	28	29	1	29
1440	2037.6673	1.1715E-39	4883.2645	31	3	28	30	2	29
1441	2045.5681	1.2505E-40	5460.6546	32	4	28	31	3	29
1442	2054.4135	3.9491E-39	4599.7353	31	2	29	30	1	30
1443	2062.8948	6.0431E-40	5190.0732	32	3	29	31	2	30
1444	2080.4810	2.2189E-39	4897.4666	32	2	30	31	1	31