

Table 1: OR-Tools CP-SAT Solver CFLP Instances

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
200	0	20.7	23	32.56	137	20.48	293	23.24	447	41.93
200	0	52.5	23	21.51	137	20.01	293	22.01	447	38.87
200	0	54.65	23	29.48	137	21.3	293	19.82	447	31.67
200	0	10.27	23	15.9	137	26.93	293	22.73	447	24.12
200	0	9.9	23	17.72	137	20.7	293	25.01	447	27.82
201	0	3600.0	29	3600.0	148	3600.0	300	3600.0	425	117.26
201	0	3600.0	29	3600.0	148	3600.0	300	3600.0	425	37.77
201	0	3600.0	29	3600.0	148	3600.0	300	3600.0	425	30.04
201	0	3600.0	29	3600.0	148	3600.0	300	3600.0	425	27.66
201	0	3600.0	29	3600.0	148	3600.0	300	3600.0	425	21.67
202	0	3600.0	38	3600.0	160	3600.0	302	3600.0	352	60.27
202	0	3600.0	38	3600.0	160	3600.0	302	3600.0	352	67.03
202	0	3600.0	38	3600.0	160	3600.0	302	3600.0	352	85.84
202	0	3600.0	38	3600.0	160	3600.0	302	3600.0	352	26.44
202	0	3600.0	38	3600.0	160	3600.0	302	3600.0	352	21.78
203	192	3600.0	192	1407.21	192	3600.0	592	3600.0	901	17.48
203	192	3600.0	192	3600.0	192	3600.0	592	3600.0	901	18.77
203	192	3600.0	192	2176.06	192	3600.0	592	3600.0	901	27.07
203	192	3600.0	192	3600.0	192	3600.0	592	3600.0	901	78.82
203	192	3600.0	192	3600.0	192	3600.0	592	3600.0	901	79.77
204	0	3600.0	294	3600.0	626	1812.08	820	3600.0	962	53.16
204	0	3600.0	294	3600.0	626	1841.72	820	2573.85	962	51.68
204	0	3600.0	294	2785.79	626	2210.18	820	739.13	962	580.18
204	0	3600.0	294	3600.0	626	2265.32	820	3600.0	962	4.72
204	0	3523.0	294	3600.0	626	2090.98	820	3600.0	962	4.93
205	0	3276.52	323	3600.0	616	34.95	806	146.51	964	13.88
205	0	3600.0	323	1981.27	616	48.06	806	56.84	964	8.92
205	0	2596.78	323	3208.04	616	49.56	806	603.1	964	7.97
205	0	372.3	323	748.8	616	45.24	806	246.0	964	4.71
205	0	1250.78	323	589.82	616	59.35	806	77.63	964	8.37
206	0	3600.0	311	3600.0	623	1657.76	813	826.46	961	16.63
206	0	3600.0	311	3600.0	623	1380.15	813	743.38	961	23.08
206	0	3600.0	311	3600.0	623	1741.49	813	1350.83	961	6.88
206	0	3600.0	311	3600.0	623	1863.19	813	2207.16	961	3.1
206	0	3372.04	311	3600.0	623	1822.16	813	926.14	961	3.56
207	725	600.47	725	259.17	725	3600.0	908	3600.0	245	5.39
207	725	112.11	725	479.82	725	3600.0	908	3600.0	245	6.12
207	725	833.4	725	564.28	725	3600.0	908	3600.0	245	7.71

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
207	725	3600.0	725	3600.0	725	3600.0	908	3600.0	245	13.43
207	725	3600.0	725	3600.0	725	3600.0	908	3600.0	245	14.25
208	0	50.44	10	102.95	81	48.02	173	184.1	816	60.01
208	0	52.48	10	167.46	81	32.27	173	175.2	816	63.48
208	0	38.04	10	68.91	81	47.78	173	147.42	816	90.49
208	0	20.91	10	43.35	81	44.85	173	133.11	816	63.94
208	0	18.62	10	55.66	81	35.0	173	134.01	816	79.87
209	0	84.58	7	51.22	70	54.97	197	158.06	830	58.51
209	0	103.54	7	48.88	70	54.65	197	238.17	830	53.32
209	0	86.76	7	51.68	70	48.84	197	307.63	830	52.22
209	0	28.16	7	53.6	70	65.18	197	220.65	830	86.63
209	0	27.61	7	69.33	70	78.57	197	343.7	830	76.39
210	0	3600.0	9	143.54	82	70.51	181	381.82	838	64.5
210	0	3600.0	9	140.15	82	66.24	181	146.36	838	65.06
210	0	3600.0	9	153.85	82	50.07	181	166.04	838	55.66
210	0	3600.0	9	66.85	82	59.79	181	229.47	838	221.98
210	0	3600.0	9	84.45	82	59.42	181	206.75	838	86.33
211	112	3600.0	112	3600.0	112	3600.0	255	3600.0	751	33.96
211	112	3600.0	112	3600.0	112	3600.0	255	3600.0	751	37.07
211	112	3600.0	112	3600.0	112	3600.0	255	3600.0	751	37.54
211	112	3600.0	112	3600.0	112	3600.0	255	3600.0	751	132.39
211	112	3600.0	112	3600.0	112	3600.0	255	3600.0	751	123.6
212	0	124.15	7	152.25	82	2150.04	127	456.73	115	155.95
212	0	119.83	7	151.9	82	1002.43	127	636.35	115	140.22
212	0	119.62	7	150.84	82	941.75	127	640.94	115	154.53
212	0	89.39	7	233.54	82	2120.43	127	522.67	115	147.91
212	0	93.17	7	325.76	82	604.96	127	456.58	115	171.39
213	0	282.55	1	130.37	64	1809.63	127	493.28	111	181.22
213	0	290.73	1	122.07	64	473.72	127	739.54	111	199.34
213	0	129.1	1	315.93	64	2852.73	127	685.67	111	173.63
213	0	64.08	1	414.24	64	824.68	127	435.38	111	192.91
213	0	64.88	1	942.32	64	1143.05	127	547.05	111	211.69
214	61	3600.0	61	3600.0	61	3600.0	127	3600.0	501	85.0
214	61	3600.0	61	3600.0	61	3600.0	127	3600.0	501	101.89
214	61	3600.0	61	3600.0	61	3600.0	127	3600.0	501	82.04
214	61	3600.0	61	3600.0	61	3600.0	127	3600.0	501	91.03
214	61	3600.0	61	3600.0	61	3600.0	127	3600.0	501	66.33
215	0	3600.0	3	3600.0	65	3600.0	127	3600.0	111	3600.0
215	0	3600.0	3	3600.0	65	3600.0	127	3600.0	111	3600.0
215	0	3600.0	3	3600.0	65	3600.0	127	3600.0	111	3600.0

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Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
215	0	3600.0	3	3600.0	65	3600.0	127	3600.0	111	3600.0
215	0	3600.0	3	3600.0	65	3600.0	127	3600.0	111	3600.0
216	0	3600.0	77	3600.0	303	3600.0	510	1579.64	737	17.04
216	0	3600.0	77	3600.0	303	3600.0	510	1010.05	737	16.21
216	0	3600.0	77	398.27	303	3600.0	510	3600.0	737	56.17
216	0	3600.0	77	3600.0	303	3600.0	510	1458.12	737	9.99
216	0	3600.0	77	3600.0	303	3600.0	510	3600.0	737	10.93
217	0	3600.0	67	3600.0	292	3600.0	499	3600.0	895	189.68
217	0	3600.0	67	3600.0	292	3600.0	499	3600.0	895	119.52
217	0	3600.0	67	3600.0	292	3600.0	499	3600.0	895	96.33
217	0	3600.0	67	3600.0	292	3600.0	499	3600.0	895	3600.0
217	0	3600.0	67	3600.0	292	3600.0	499	3600.0	895	3600.0
218	0	3600.0	80	3600.0	291	3600.0	509	3600.0	895	159.14
218	0	3600.0	80	3600.0	291	3600.0	509	3600.0	895	297.05
218	0	3600.0	80	3600.0	291	3600.0	509	3600.0	895	162.74
218	0	3600.0	80	3600.0	291	3600.0	509	3600.0	895	3600.0
218	0	3600.0	80	3600.0	291	3600.0	509	3600.0	895	3600.0
219	381	745.08	381	785.6	381	3600.0	718	3600.0	123	37.67
219	381	309.58	381	411.88	381	3600.0	718	3600.0	123	14.14
219	381	421.27	381	1274.54	381	3600.0	718	3600.0	123	12.2
219	381	3600.0	381	3600.0	381	3600.0	718	3600.0	123	36.31
219	381	3600.0	381	3600.0	381	3600.0	718	3600.0	123	39.36
220	8	3.17	8	2.19	8	1.43	74	1.9	1	2.3
220	8	2.45	8	2.09	8	1.3	74	2.29	1	0.68
220	8	2.54	8	2.6	8	1.38	74	1.65	1	0.75
220	8	1.25	8	1.17	8	1.24	74	1.45	1	0.48
220	8	1.18	8	1.65	8	1.44	74	3.84	1	0.48
221	0	2.63	0	5.3	0	4.28	30	1.38	26	2.15
221	0	2.78	0	2.0	0	1.19	30	1.32	26	0.84
221	0	2.33	0	1.63	0	1.32	30	1.0	26	0.79
221	0	0.78	0	0.76	0	4.25	30	1.06	26	0.53
221	0	0.79	0	0.78	0	1.2	30	2.2	26	0.53
222	0	2.8	0	1.71	0	1.45	26	1.49	112	1.37
222	0	2.64	0	1.82	0	3.44	26	1.05	112	1.63
222	0	2.59	0	4.82	0	1.31	26	1.58	112	1.68
222	0	0.84	0	1.03	0	1.44	26	1.14	112	1.04
222	0	0.91	0	0.8	0	3.49	26	0.92	112	0.94
223	0	2.34	0	4.32	0	0.79	25	0.85	82	1.04
223	0	2.28	0	2.83	0	0.96	25	0.87	82	3.14
223	0	2.24	0	2.09	0	2.54	25	0.36	82	1.13

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
223	0	1.02	0	1.03	0	0.78	25	0.8	82	0.77
223	0	0.86	0	0.78	0	1.26	25	0.84	82	0.85
224	38	0.51	38	0.48	38	0.26	56	0.06	112	0.54
224	38	0.55	38	0.45	38	0.09	56	0.06	112	0.58
224	38	0.36	38	0.41	38	0.11	56	0.06	112	0.54
224	38	0.11	38	0.11	38	0.13	56	0.06	112	0.21
224	38	0.09	38	0.1	38	0.26	56	0.07	112	0.22
225	0	0.45	6	0.45	26	0.11	35	0.06	83	0.47
225	0	0.36	6	0.36	26	0.14	35	0.06	83	0.51
225	0	0.48	6	0.37	26	0.12	35	0.06	83	0.43
225	0	0.1	6	0.12	26	0.27	35	0.07	83	0.17
225	0	0.1	6	0.1	26	0.1	35	0.06	83	0.16
226	0	474.46	6	1388.75	27	111.59	39	42.33	91	3.92
226	0	416.61	6	571.69	27	132.37	39	35.51	91	3.86
226	0	625.26	6	52.39	27	0.54	39	35.66	91	4.73
226	0	268.25	6	186.78	27	96.0	39	34.56	91	2.6
226	0	231.06	6	158.19	27	81.99	39	40.39	91	4.18
227	0	766.87	8	530.84	32	291.81	42	119.07	93	3.32
227	0	3600.0	8	82.45	32	871.89	42	127.88	93	1.26
227	0	3600.0	8	2912.05	32	251.58	42	283.65	93	1.07
227	0	639.18	8	404.87	32	331.82	42	130.31	93	0.21
227	0	617.96	8	396.21	32	288.03	42	119.5	93	0.22
228	14	8.13	14	5.99	13	4.73	209	3.74	0	0.67
228	14	7.41	14	5.54	13	5.01	209	3.91	0	0.63
228	14	7.42	14	7.58	13	5.98	209	1.85	0	0.62
228	14	5.18	14	5.48	13	3.85	209	1.75	0	0.62
228	14	4.92	14	5.62	13	5.31	209	3.85	0	0.61
229	0	8.1	0	5.91	13	5.62	119	12.13	0	1.04
229	0	8.94	0	5.12	13	4.99	119	8.6	0	1.06
229	0	6.11	0	7.51	13	6.27	119	10.08	0	1.1
229	0	4.95	0	4.77	13	5.45	119	10.95	0	0.94
229	0	5.19	0	4.48	13	4.62	119	12.02	0	1.06
230	0	7.71	0	4.87	5	5.32	116	14.87	149	10.28
230	0	7.93	0	4.8	5	5.92	116	7.36	149	3.44
230	0	7.46	0	14.41	5	4.97	116	6.06	149	2.9
230	0	5.64	0	4.81	5	5.05	116	6.54	149	3.36
230	0	5.03	0	4.22	5	5.9	116	15.41	149	2.27
231	0	7.53	0	6.78	1	4.99	113	10.15	0	1.04
231	0	7.32	0	5.36	1	6.33	113	15.25	0	1.03
231	0	7.95	0	4.93	1	5.27	113	8.21	0	1.1

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
231	0	3.23	0	6.42	1	5.79	113	12.31	0	1.07
231	0	4.7	0	6.64	1	5.9	113	12.28	0	0.94
232	58	12.28	58	10.8	58	8.13	463	13.62	0	1.1
232	58	12.15	58	11.89	58	9.65	463	7.7	0	1.08
232	58	14.32	58	13.11	58	10.34	463	11.76	0	1.11
232	58	8.47	58	10.04	58	9.86	463	8.65	0	1.39
232	58	10.19	58	10.75	58	9.33	463	7.67	0	1.15
233	0	12.42	0	10.0	36	9.38	364	72.97	0	2.23
233	0	11.05	0	12.29	36	9.1	364	62.53	0	8.95
233	0	16.06	0	9.26	36	9.52	364	75.93	0	2.86
233	0	7.69	0	10.5	36	12.08	364	62.89	0	2.3
233	0	7.11	0	10.21	36	10.46	364	55.83	0	2.05
234	0	10.93	0	14.42	25	9.31	339	55.25	0	2.23
234	0	11.05	0	32.81	25	9.37	339	61.74	0	2.23
234	0	11.55	0	13.3	25	10.08	339	71.42	0	2.21
234	0	7.72	0	10.59	25	9.73	339	73.95	0	2.23
234	0	5.67	0	10.45	25	10.59	339	66.32	0	2.31
235	0	11.71	0	14.27	53	11.01	361	12.58	0	1.95
235	0	12.19	0	13.74	53	10.72	361	12.24	0	2.0
235	0	11.29	0	29.34	53	8.23	361	11.22	0	2.2
235	0	5.32	0	11.59	53	10.35	361	6.9	0	2.0
235	0	6.03	0	11.74	53	9.8	361	12.04	0	1.86
236	22	0.88	22	0.92	22	0.31	45	0.2	142	1.26
236	22	0.87	22	0.79	22	0.28	45	0.22	142	1.19
236	22	1.5	22	0.98	22	0.29	45	0.2	142	1.1
236	22	0.29	22	0.28	22	0.32	45	0.2	142	0.57
236	22	0.35	22	0.31	22	0.32	45	0.21	142	0.6
237	0	1.09	1	1.35	11	0.33	14	0.2	109	1.17
237	0	0.84	1	0.77	11	0.31	14	0.22	109	1.12
237	0	0.81	1	0.77	11	0.4	14	0.2	109	1.25
237	0	0.28	1	0.24	11	0.28	14	0.21	109	0.56
237	0	0.29	1	0.3	11	0.29	14	0.21	109	0.64
238	0	3600.0	2	3600.0	13	3600.0	23	3600.0	105	6.34
238	0	3600.0	2	3600.0	13	3600.0	23	3600.0	105	35.16
238	0	3600.0	2	728.31	13	3600.0	23	3600.0	105	32.78
238	0	3600.0	2	3600.0	13	3600.0	23	3600.0	105	3205.1
238	0	3600.0	2	3600.0	13	3600.0	23	3600.0	105	3600.0
239	0	3600.0	1	3600.0	10	3600.0	16	3600.0	101	14.24
239	0	3600.0	1	3600.0	10	3600.0	16	3600.0	101	8.11
239	0	3600.0	1	3600.0	10	3600.0	16	3600.0	101	6.29

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
239	0	3600.0	1	3600.0	10	3600.0	16	3600.0	101	3230.58
239	0	3600.0	1	3600.0	10	3600.0	16	3600.0	101	2216.45
240	0	91.27	61	41.94	272	23.0	426	30.6	313	35.0
240	0	103.6	61	39.65	272	50.67	426	66.97	313	37.57
240	0	163.21	61	87.99	272	23.83	426	78.95	313	33.98
240	0	201.7	61	19.27	272	24.55	426	87.67	313	31.8
240	0	143.17	61	18.82	272	27.62	426	58.07	313	34.84
241	0	3600.0	46	44.44	267	22.81	426	94.81	313	34.11
241	0	3600.0	46	101.25	267	68.13	426	101.71	313	38.32
241	0	3600.0	46	85.47	267	22.33	426	126.75	313	38.91
241	0	3600.0	46	35.61	267	35.02	426	170.25	313	39.38
241	0	3600.0	46	22.82	267	26.51	426	69.13	313	44.36
242	0	3600.0	59	3600.0	285	3600.0	426	3600.0	311	173.19
242	0	3600.0	59	3600.0	285	3600.0	426	3600.0	311	53.24
242	0	3600.0	59	3600.0	285	3600.0	426	3600.0	311	149.95
242	0	3600.0	59	3600.0	285	3600.0	426	3600.0	311	42.49
242	0	3600.0	59	3600.0	285	3600.0	426	3600.0	311	27.29
243	353	3600.0	353	3600.0	353	3600.0	426	3600.0	1401	62.03
243	353	3600.0	353	3600.0	353	3600.0	426	3600.0	1401	24.25
243	353	3600.0	353	3600.0	353	3600.0	426	3600.0	1401	25.39
243	353	3600.0	353	3600.0	353	3600.0	426	3600.0	1401	111.54
243	353	3600.0	353	3600.0	353	3600.0	426	3600.0	1401	123.14
244	0	525.3	569	590.38	1065	7.72	1297	181.08	1463	7.99
244	0	846.76	569	400.16	1065	13.47	1297	70.99	1463	6.76
244	0	1707.12	569	431.07	1065	16.36	1297	109.17	1463	8.53
244	0	427.44	569	71.44	1065	7.58	1297	42.36	1463	5.42
244	0	484.16	569	87.82	1065	9.91	1297	52.18	1463	8.0
245	3	801.75	577	68.75	1068	4.8	1300	41.98	1463	13.4
245	3	1992.4	577	98.16	1068	4.2	1300	20.1	1463	14.83
245	3	1916.6	577	66.56	1068	4.41	1300	38.89	1463	13.57
245	3	601.03	577	10.66	1068	3.3	1300	23.39	1463	4.37
245	3	136.98	577	9.39	1068	4.85	1300	41.16	1463	4.98
246	1201	683.39	1201	228.88	1201	744.18	1402	3600.0	174	9.42
246	1201	715.53	1201	554.99	1201	1001.23	1402	3600.0	174	9.73
246	1201	411.98	1201	468.79	1201	589.73	1402	3600.0	174	11.11
246	1201	57.83	1201	47.5	1201	607.4	1402	3600.0	174	27.41
246	1201	68.21	1201	71.73	1201	654.85	1402	3600.0	174	27.76
247	0	214.96	593	420.35	1072	15.31	1301	44.33	1459	9.31
247	0	312.56	593	348.97	1072	10.93	1301	21.39	1459	8.93
247	0	655.25	593	46.36	1072	8.68	1301	45.59	1459	7.87

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
247	0	25.36	593	67.83	1072	9.72	1301	17.18	1459	5.08
247	0	118.7	593	62.19	1072	7.78	1301	38.62	1459	9.76
248	189	281.57	189	107.0	189	292.47	170	1892.28	1251	57.43
248	189	281.73	189	87.02	189	109.71	170	1513.63	1251	75.33
248	189	228.4	189	135.96	189	99.11	170	471.49	1251	58.72
248	189	129.27	189	99.99	189	107.01	170	1183.78	1251	164.94
248	189	99.51	189	109.78	189	101.58	170	1346.51	1251	153.65
249	0	3600.0	23	3600.0	150	3600.0	170	3600.0	429	193.6
249	0	3600.0	23	3600.0	150	3600.0	170	3600.0	429	178.36
249	0	3600.0	23	3600.0	150	3600.0	170	3600.0	429	116.59
249	0	3600.0	23	3600.0	150	3600.0	170	3600.0	429	141.6
249	0	3600.0	23	3600.0	150	3600.0	170	3600.0	429	153.97
250	0	91.1	9	79.27	160	59.65	170	285.38	1265	196.86
250	0	73.45	9	237.84	160	69.63	170	306.14	1265	88.29
250	0	97.02	9	86.96	160	75.67	170	247.61	1265	78.79
250	0	35.47	9	50.79	160	68.72	170	371.44	1265	154.09
250	0	40.46	9	64.52	160	73.6	170	292.55	1265	147.44
251	0	3600.0	16	3600.0	139	3600.0	170	3600.0	1284	165.82
251	0	3600.0	16	3600.0	139	3600.0	170	3600.0	1284	183.78
251	0	3600.0	16	3600.0	139	3600.0	170	3600.0	1284	195.38
251	0	3600.0	16	3600.0	139	3600.0	170	3600.0	1284	121.7
251	0	3600.0	16	3600.0	139	3600.0	170	3600.0	1284	102.71
252	103	164.35	103	173.35	103	3600.0	85	1182.51	1001	98.03
252	103	201.71	103	407.65	103	3600.0	85	3319.78	1001	87.89
252	103	215.48	103	208.06	103	3600.0	85	2613.47	1001	116.45
252	103	945.34	103	1021.44	103	439.37	85	1469.59	1001	122.15
252	103	154.32	103	167.49	103	185.34	85	3600.0	1001	114.53
253	0	3600.0	2	255.55	146	1012.61	85	3600.0	84	193.83
253	0	3600.0	2	305.22	146	922.51	85	2888.78	84	216.27
253	0	3600.0	2	291.77	146	1045.32	85	1709.14	84	215.06
253	0	3600.0	2	1354.53	146	2589.72	85	3600.0	84	255.87
253	0	3600.0	2	813.82	146	3600.0	85	3600.0	84	306.97
254	0	689.67	1	353.28	131	177.34	85	3600.0	85	303.09
254	0	607.3	1	288.25	131	1392.3	85	2264.71	85	262.11
254	0	1936.87	1	763.73	131	2932.89	85	3600.0	85	252.92
254	0	298.83	1	1002.49	131	165.89	85	2439.75	85	708.11
254	0	420.52	1	2751.63	131	930.8	85	3600.0	85	451.24
255	0	3600.0	11	266.91	104	140.56	85	3600.0	175	218.42
255	0	3600.0	11	257.24	104	745.57	85	3600.0	175	229.95
255	0	3600.0	11	245.72	104	2308.06	85	3600.0	175	185.03

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
255	0	3600.0	11	485.84	104	157.57	85	1982.14	175	245.82
255	0	3600.0	11	837.94	104	162.06	85	3067.98	175	860.75
256	0	10.24	170	18.99	568	9.3	852	14.38	1360	21.19
256	0	34.41	170	18.65	568	10.27	852	14.88	1360	52.47
256	0	26.49	170	15.67	568	9.22	852	12.37	1360	18.7
256	0	7.25	170	8.81	568	8.19	852	14.96	1360	16.48
256	0	7.36	170	10.0	568	9.7	852	11.11	1360	17.7
257	0	3600.0	146	3600.0	554	3600.0	852	3600.0	1379	333.07
257	0	3600.0	146	3600.0	554	3600.0	852	3600.0	1379	184.95
257	0	3600.0	146	3600.0	554	3600.0	852	3600.0	1379	227.92
257	0	3600.0	146	3600.0	554	3600.0	852	3600.0	1379	3600.0
257	0	3600.0	146	3600.0	554	3600.0	852	3600.0	1379	3600.0
258	723	2349.11	723	2253.92	723	3600.0	852	3600.0	96	15.65
258	723	747.67	723	3600.0	723	3600.0	852	3600.0	96	17.45
258	723	3600.0	723	3600.0	723	3600.0	852	3600.0	96	19.42
258	723	3600.0	723	3600.0	723	3600.0	852	3600.0	96	78.3
258	723	3600.0	723	3600.0	723	3600.0	852	3600.0	96	78.56
259	0	3600.0	176	3600.0	583	3600.0	852	3600.0	1370	27.05
259	0	3600.0	176	3600.0	583	3600.0	852	3600.0	1370	22.34
259	0	3600.0	176	3600.0	583	3600.0	852	3600.0	1370	26.84
259	0	3600.0	176	3600.0	583	3600.0	852	3600.0	1370	15.4
259	0	3600.0	176	3600.0	583	3600.0	852	3600.0	1370	12.86
260	562	3600.0	562	3600.0	562	3600.0	319	3600.0	1901	35.39
260	562	3600.0	562	3600.0	562	3600.0	319	3600.0	1901	32.86
260	562	3600.0	562	3600.0	562	3600.0	319	3600.0	1901	29.2
260	562	3600.0	562	3600.0	562	3600.0	319	3600.0	1901	141.05
260	562	3600.0	562	3600.0	562	3600.0	319	3600.0	1901	148.4
261	0	3600.0	102	3600.0	396	3600.0	319	3600.0	242	175.89
261	0	3600.0	102	3600.0	396	3600.0	319	3600.0	242	555.46
261	0	3600.0	102	3600.0	396	3600.0	319	3600.0	242	525.76
261	0	3600.0	102	3600.0	396	3600.0	319	3600.0	242	54.3
261	0	3600.0	102	3600.0	396	3600.0	319	3600.0	242	72.8
262	0	3600.0	92	3600.0	474	3600.0	319	3600.0	242	182.85
262	0	3600.0	92	3600.0	474	3600.0	319	3600.0	242	208.74
262	0	3600.0	92	3600.0	474	3600.0	319	3600.0	242	130.1
262	0	3600.0	92	3600.0	474	3600.0	319	3600.0	242	55.58
262	0	3600.0	92	3600.0	474	3600.0	319	3600.0	242	62.15
263	0	3600.0	115	3600.0	453	3600.0	319	3600.0	244	53.01
263	0	3600.0	115	3600.0	453	3600.0	319	3600.0	244	49.32
263	0	3600.0	115	3600.0	453	3600.0	319	3600.0	244	54.81

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
263	0	3600.0	115	3600.0	453	3600.0	319	3600.0	244	69.72
263	0	3600.0	115	3600.0	453	3600.0	319	3600.0	244	119.46
264	1668	168.93	1668	35.75	1668	5.93	1500	23.6	134	10.92
264	1668	46.94	1668	12.44	1668	5.44	1500	12.48	134	12.61
264	1668	55.3	1668	31.0	1668	3.61	1500	8.93	134	9.94
264	1668	5.37	1668	6.14	1668	6.28	1500	11.14	134	50.49
264	1668	3.39	1668	3.04	1668	6.42	1500	14.8	134	52.86
265	1	3600.0	893	3600.0	1507	1255.01	1500	3600.0	1740	192.93
265	1	3600.0	893	3600.0	1507	1052.16	1500	3600.0	1740	1274.99
265	1	3377.32	893	3600.0	1507	821.42	1500	3600.0	1740	902.42
265	1	1110.81	893	3600.0	1507	1274.58	1500	3600.0	1740	11.14
265	1	1111.56	893	3600.0	1507	796.9	1500	3600.0	1740	9.61
266	0	3434.47	903	280.86	1535	3.91	1500	34.0	1739	17.08
266	0	3600.0	903	142.45	1535	9.48	1500	33.27	1739	32.65
266	0	3600.0	903	1260.94	1535	6.32	1500	50.42	1739	12.31
266	0	483.58	903	37.66	1535	9.29	1500	40.59	1739	19.39
266	0	182.58	903	33.49	1535	7.69	1500	34.03	1739	8.86
267	0	2317.9	922	3600.0	1509	66.81	1500	139.26	1737	32.13
267	0	3600.0	922	1246.23	1509	41.62	1500	98.65	1737	36.25
267	0	1086.56	922	1458.17	1509	37.26	1500	158.63	1737	21.7
267	0	276.74	922	229.58	1509	38.27	1500	88.26	1737	8.01
267	0	314.38	922	250.15	1509	26.46	1500	172.36	1737	10.59
268	247	129.59	247	136.52	247	125.2	127	2934.59	1751	72.45
268	247	302.06	247	175.42	247	139.43	127	2776.86	1751	80.04
268	247	171.1	247	173.24	247	134.4	127	3600.0	1751	75.6
268	247	152.54	247	144.54	247	133.73	127	3469.85	1751	183.16
268	247	159.8	247	308.0	247	137.78	127	3600.0	1751	166.92
269	0	3600.0	31	3600.0	196	3600.0	127	3600.0	88	123.52
269	0	3600.0	31	3600.0	196	3600.0	127	3600.0	88	118.49
269	0	3600.0	31	3600.0	196	3600.0	127	3600.0	88	118.73
269	0	3600.0	31	3600.0	196	3600.0	127	3600.0	88	170.8
269	0	3600.0	31	3600.0	196	3600.0	127	3600.0	88	186.53
270	0	3600.0	28	3600.0	166	3600.0	127	3600.0	1685	116.47
270	0	3600.0	28	3600.0	166	3600.0	127	3600.0	1685	147.76
270	0	3600.0	28	3600.0	166	3600.0	127	3600.0	1685	128.85
270	0	3600.0	28	3600.0	166	3600.0	127	3600.0	1685	253.59
270	0	3600.0	28	3600.0	166	3600.0	127	3600.0	1685	183.99
271	0	3600.0	20	3600.0	173	3600.0	127	3600.0	1330	115.76
271	0	3600.0	20	3600.0	173	3600.0	127	3600.0	1330	120.34
271	0	3600.0	20	3600.0	173	3600.0	127	3600.0	1330	116.64

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
271	0	3600.0	20	3600.0	173	3600.0	127	3600.0	1330	317.36
271	0	3600.0	20	3600.0	173	3600.0	127	3600.0	1330	230.35
272	0	418.57	0	330.28	0	564.12	63	3600.0	0	366.9
272	0	442.61	0	386.17	0	648.48	63	3600.0	0	155.09
272	0	451.7	0	807.27	0	1002.19	63	3600.0	0	192.03
272	0	410.07	0	365.12	0	382.74	63	3600.0	0	63.07
272	0	707.65	0	739.56	0	641.44	63	3600.0	0	85.63
273	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	339.45
273	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	223.78
273	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	294.09
273	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	352.24
273	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	207.25
274	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	407.16
274	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	363.88
274	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	350.93
274	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	624.31
274	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	3455.15
275	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	252.08
275	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	294.98
275	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	321.42
275	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	304.34
275	0	3600.0	0	3600.0	0	3600.0	63	3600.0	0	280.96
276	1066	3600.0	1066	3600.0	1066	3600.0	639	2639.86	1951	24.44
276	1066	3600.0	1066	3600.0	1066	3600.0	639	2973.42	1951	25.53
276	1066	3600.0	1066	3600.0	1066	3600.0	639	2818.08	1951	30.34
276	1066	3600.0	1066	3600.0	1066	244.16	639	2868.2	1951	125.83
276	1066	3600.0	1066	3600.0	1066	3600.0	639	2785.81	1951	124.84
277	0	3600.0	269	3600.0	862	3600.0	639	3600.0	1514	251.4
277	0	3600.0	269	3600.0	862	3600.0	639	3600.0	1514	232.6
277	0	3600.0	269	3600.0	862	3600.0	639	3600.0	1514	24.91
277	0	3600.0	269	3600.0	862	3600.0	639	3600.0	1514	21.83
277	0	3600.0	269	3600.0	862	3600.0	639	3600.0	1514	18.98
278	0	3600.0	262	3600.0	880	3600.0	639	3600.0	1515	36.34
278	0	3600.0	262	3600.0	880	3600.0	639	3600.0	1515	38.47
278	0	3600.0	262	3600.0	880	3600.0	639	3600.0	1515	24.06
278	0	3600.0	262	3600.0	880	3600.0	639	3600.0	1515	23.1
278	0	3600.0	262	3600.0	880	3600.0	639	3600.0	1515	23.04
279	0	3600.0	277	3600.0	870	3600.0	639	3600.0	1513	1183.21
279	0	3600.0	277	3600.0	870	3600.0	639	3600.0	1513	657.69
279	0	3600.0	277	3600.0	870	3600.0	639	3600.0	1513	1057.12

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
279	0	3600.0	277	3600.0	870	3600.0	639	3600.0	1513	3600.0
279	0	3600.0	277	3600.0	870	3600.0	639	3600.0	1513	3600.0
280	0	3600.0	3	3600.0	61	3600.0	110	3600.0	386	3600.0
280	0	3600.0	3	3600.0	61	3600.0	110	3600.0	386	3600.0
280	0	3600.0	3	3600.0	61	3600.0	110	3600.0	386	298.39
280	0	3600.0	3	3600.0	61	3600.0	110	3600.0	386	3600.0
280	0	3600.0	3	3600.0	61	3600.0	110	3600.0	386	3600.0
281	0	3600.0	6	3600.0	46	3600.0	109	3600.0	424	23.68
281	0	3600.0	6	3600.0	46	3600.0	109	3600.0	424	16.51
281	0	3600.0	6	3600.0	46	3600.0	109	3600.0	424	18.25
281	0	3600.0	6	3600.0	46	3600.0	109	3600.0	424	10.99
281	0	3600.0	6	3600.0	46	3600.0	109	3600.0	424	12.29
282	0	3600.0	6	3600.0	58	3600.0	117	3600.0	429	18.58
282	0	3600.0	6	3600.0	58	3600.0	117	3600.0	429	20.84
282	0	3600.0	6	3600.0	58	3600.0	117	3600.0	429	26.86
282	0	3600.0	6	3600.0	58	3600.0	117	3600.0	429	13.87
282	0	3600.0	6	3600.0	58	3600.0	117	3600.0	429	11.34
283	57	1178.64	57	3600.0	57	3600.0	251	3600.0	401	11.32
283	57	3600.0	57	3600.0	57	3600.0	251	3600.0	401	9.75
283	57	3600.0	57	3600.0	57	3600.0	251	3600.0	401	8.55
283	57	3600.0	57	3600.0	57	3600.0	251	3600.0	401	29.35
283	57	3600.0	57	3600.0	57	3600.0	251	3600.0	401	24.67
284	306	2.21	306	1.9	306	0.61	418	1.31	398	4.09
284	306	4.69	306	2.1	306	1.11	418	1.23	398	3.65
284	306	1.92	306	2.45	306	0.76	418	1.33	398	3.91
284	306	1.7	306	1.37	306	1.67	418	1.17	398	2.81
284	306	0.81	306	0.63	306	0.76	418	4.47	398	2.89
285	0	416.65	79	144.34	257	1.22	355	168.95	468	3.59
285	0	240.01	79	130.64	257	57.49	355	98.04	468	3.86
285	0	300.27	79	145.71	257	72.74	355	163.44	468	4.46
285	0	139.95	79	203.07	257	87.95	355	29.39	468	1.35
285	0	97.05	79	159.43	257	90.0	355	55.25	468	1.22
286	0	3600.0	77	1480.4	237	1848.73	349	1362.93	464	11.2
286	0	3600.0	77	431.01	237	2084.12	349	2073.96	464	7.27
286	0	3600.0	77	1332.17	237	3600.0	349	3600.0	464	8.7
286	0	1975.77	77	3479.03	237	1798.88	349	2905.98	464	1.79
286	0	2270.65	77	3600.0	237	1740.59	349	3185.81	464	3.01
287	0	3600.0	95	290.32	261	28.36	369	2.42	474	3.08
287	0	1037.21	95	253.64	261	29.97	369	31.19	474	2.67
287	0	1149.82	95	59.36	261	23.78	369	108.86	474	2.69

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
287	0	957.22	95	107.46	261	33.86	369	103.05	474	1.08
287	0	1057.38	95	95.86	261	26.15	369	37.2	474	0.96
288	0	29.79	1	30.26	39	23.15	84	25.35	264	33.23
288	0	28.0	1	25.69	39	30.2	84	39.62	264	31.42
288	0	18.91	1	26.31	39	25.4	84	28.05	264	45.62
288	0	15.69	1	20.32	39	26.97	84	45.8	264	28.62
288	0	15.94	1	22.44	39	27.73	84	25.87	264	36.63
289	0	20.64	2	32.1	40	17.28	98	37.34	295	37.79
289	0	28.87	2	26.12	40	20.79	98	30.08	295	30.35
289	0	23.79	2	32.59	40	24.12	98	38.04	295	29.33
289	0	15.94	2	18.62	40	21.9	98	27.28	295	37.11
289	0	15.76	2	25.62	40	29.07	98	29.69	295	34.63
290	43	3600.0	43	3600.0	43	3600.0	351	3600.0	251	25.61
290	43	3600.0	43	3600.0	43	3600.0	351	3600.0	251	31.42
290	43	3600.0	43	3600.0	43	3600.0	351	3600.0	251	27.07
290	43	3600.0	43	3600.0	43	3600.0	351	3600.0	251	62.63
290	43	3600.0	43	3600.0	43	3600.0	351	3600.0	251	57.32
291	0	3600.0	0	3600.0	17	3600.0	82	3600.0	279	59.83
291	0	3600.0	0	3600.0	17	3600.0	82	3600.0	279	64.14
291	0	3600.0	0	3600.0	17	3600.0	82	3600.0	279	43.03
291	0	3600.0	0	3600.0	17	3600.0	82	3600.0	279	28.48
291	0	3600.0	0	3600.0	17	3600.0	82	3600.0	279	37.67
292	71	63.24	71	67.29	71	120.37	256	325.79	1	14.94
292	71	70.08	71	64.96	71	111.5	256	391.79	1	17.45
292	71	61.95	71	69.15	71	106.09	256	415.21	1	14.04
292	71	39.67	71	44.68	71	35.67	256	376.38	1	23.5
292	71	38.24	71	46.71	71	41.72	256	314.16	1	28.2
293	0	52.2	0	51.45	48	48.19	138	448.67	207	28.36
293	0	106.07	0	72.23	48	45.81	138	518.58	207	27.69
293	0	51.42	0	57.44	48	49.83	138	497.55	207	33.51
293	0	27.0	0	41.57	48	42.49	138	505.95	207	59.14
293	0	25.18	0	43.69	48	34.9	138	456.22	207	68.8
294	0	116.12	0	166.46	41	47.31	136	429.17	192	48.66
294	0	52.97	0	76.63	41	52.55	136	366.91	192	36.65
294	0	48.64	0	195.92	41	44.93	136	503.25	192	40.62
294	0	70.17	0	48.38	41	40.07	136	513.04	192	77.67
294	0	20.64	0	49.01	41	57.74	136	385.49	192	75.57
295	0	62.7	0	68.33	25	45.31	118	367.83	173	37.11
295	0	48.19	0	106.54	25	41.84	118	468.06	173	40.89
295	0	52.27	0	56.52	25	48.35	118	384.13	173	38.42

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Table 1 – *Continued from previous page*

Name	original		$(\ell = 5)$		$(\ell = 4)$		$(\ell = 3)$		$(\ell = 2)$	
	generators	time	generators	time	generators	time	generators	time	generators	time
295	0	22.38	0	43.64	25	52.6	118	342.57	173	65.07
295	0	21.19	0	50.62	25	45.11	118	1447.53	173	71.27
296	142	4.16	142	6.87	142	2.43	315	9.97	193	8.68
296	142	4.15	142	4.73	142	2.29	315	3.18	193	10.14
296	142	4.21	142	4.53	142	2.19	315	9.66	193	6.79
296	142	1.68	142	2.25	142	2.15	315	3.09	193	10.11
296	142	1.62	142	2.25	142	2.19	315	3.68	193	9.08
297	0	3600.0	19	3600.0	109	3600.0	198	3600.0	453	5.98
297	0	3600.0	19	3600.0	109	3600.0	198	3600.0	453	9.41
297	0	3600.0	19	3600.0	109	3600.0	198	3600.0	453	6.23
297	0	3600.0	19	3600.0	109	3600.0	198	3600.0	453	4.85
297	0	3600.0	19	3600.0	109	3600.0	198	3600.0	453	4.46
298	0	3600.0	24	3600.0	102	3600.0	176	3600.0	424	51.1
298	0	3600.0	24	3600.0	102	3600.0	176	3600.0	424	245.11
298	0	3600.0	24	3600.0	102	3600.0	176	3600.0	424	32.55
298	0	3600.0	24	3600.0	102	3600.0	176	3600.0	424	3600.0
298	0	3600.0	24	3600.0	102	3600.0	176	3600.0	424	3600.0
299	0	3600.0	28	3600.0	103	3600.0	195	3600.0	448	6.25
299	0	3600.0	28	3600.0	103	3600.0	195	3600.0	448	6.79
299	0	3600.0	28	3600.0	103	3600.0	195	3600.0	448	6.1
299	0	3600.0	28	3600.0	103	3600.0	195	3600.0	448	4.87
299	0	3600.0	28	3600.0	103	3600.0	195	3600.0	448	3.56