

# Solução do Problema DEGEN3 - Solver HiGHS

Análise Computacional

16 de setembro de 2025

## 1 Informações do Problema

### Informações do Problema:

- Nome: DEGEN3
- Número de Variáveis: 1818
- Número de Restrições: 1503
- Inviabilidade Primal: 1.776e-15
- Inviabilidade Dual: 4.441e-16
- Valor Primal: -9.873e+02
- Valor Dual: -9.873e+02
- Gap: -1.166e-18
- Número de Iterações: 21

## 2 Variáveis Primais e Custos Reduzidos

Tabela 1: Variáveis primais e custos reduzidos do problema DEGEN3

Coordenada x	Valor x	Coordenada z	Valor z
1	0.000000	1	2.482000
2	1.000000	2	0.000000
3	1.000000	3	0.000000
4	-0.000000	4	0.000000
5	0.000000	5	0.536000
6	1.000000	6	0.000000
7	0.000000	7	0.970000
8	1.000000	8	0.000000
9	1.000000	9	0.000000
10	-0.000000	10	0.000000
11	-0.000000	11	0.000000
12	-0.000000	12	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
13	-0.000000	13	0.000000
14	1.000000	14	0.000000
15	1.000000	15	0.000000
16	-0.000000	16	0.000000
17	0.000000	17	0.614000
18	-0.000000	18	0.000000
19	1.000000	19	0.000000
20	-0.000000	20	0.000000
21	0.000000	21	0.276000
22	0.200000	22	0.000000
23	0.800000	23	0.000000
24	-0.000000	24	0.000000
25	1.000000	25	0.000000
26	0.000000	26	0.676000
27	1.000000	27	0.000000
28	-0.000000	28	0.000000
29	0.000000	29	0.510000
30	1.000000	30	0.000000
31	-0.000000	31	0.000000
32	-0.000000	32	0.000000
33	0.000000	33	0.272000
34	1.000000	34	0.000000
35	-0.000000	35	0.000000
36	-0.000000	36	0.000000
37	-0.000000	37	0.000000
38	1.000000	38	0.000000
39	0.000000	39	0.396000
40	1.000000	40	0.000000
41	0.000000	41	0.350000
42	1.000000	42	0.000000
43	-0.000000	43	0.000000
44	-0.000000	44	0.000000
45	1.000000	45	0.000000
46	0.000000	46	3.104000
47	-0.000000	47	0.000000
48	0.600000	48	0.000000
49	0.400000	49	0.000000
50	-0.000000	50	0.000000
51	-0.000000	51	0.000000
52	-0.000000	52	0.000000
53	1.000000	53	0.000000
54	1.000000	54	0.000000
55	-0.000000	55	0.000000
56	-0.000000	56	0.000000
57	-0.000000	57	0.000000
58	1.000000	58	0.000000
59	0.000000	59	0.370000
60	1.000000	60	0.000000
61	-0.000000	61	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
62	-0.000000	62	0.000000
63	0.000000	63	0.212000
64	1.000000	64	0.000000
65	-0.000000	65	0.000000
66	1.000000	66	0.000000
67	-0.000000	67	0.000000
68	-0.000000	68	0.000000
69	-0.000000	69	0.000000
70	1.000000	70	0.000000
71	0.000000	71	0.736000
72	-0.000000	72	0.000000
73	1.000000	73	0.000000
74	0.000000	74	0.898000
75	0.000000	75	0.520000
76	0.600000	76	0.000000
77	0.400000	77	0.000000
78	0.000000	78	0.254000
79	1.000000	79	0.000000
80	0.000000	80	0.784000
81	-0.000000	81	0.000000
82	1.000000	82	0.000000
83	-0.000000	83	0.000000
84	-0.000000	84	0.000000
85	0.000000	85	0.530000
86	1.000000	86	0.000000
87	0.600000	87	0.000000
88	0.400000	88	0.000000
89	0.000000	89	0.150000
90	1.000000	90	0.000000
91	-0.000000	91	0.000000
92	0.000000	92	0.926000
93	0.800000	93	0.000000
94	0.200000	94	0.000000
95	-0.000000	95	0.000000
96	1.000000	96	0.000000
97	-0.000000	97	0.000000
98	0.000000	98	0.080000
99	1.000000	99	0.000000
100	0.000000	100	0.250000
101	-0.000000	101	0.000000
102	1.000000	102	0.000000
103	-0.000000	103	0.000000
104	-0.000000	104	0.000000
105	1.000000	105	0.000000
106	-0.000000	106	0.000000
107	-0.000000	107	0.000000
108	1.000000	108	0.000000
109	-0.000000	109	0.000000
110	-0.000000	110	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
111	0.600000	111	0.000000
112	0.400000	112	0.000000
113	-0.000000	113	0.000000
114	-0.000000	114	0.000000
115	1.000000	115	0.000000
116	-0.000000	116	0.000000
117	0.800000	117	0.000000
118	0.200000	118	0.000000
119	-0.000000	119	0.000000
120	1.000000	120	0.000000
121	-0.000000	121	0.000000
122	0.800000	122	0.000000
123	0.200000	123	0.000000
124	-0.000000	124	0.000000
125	-0.000000	125	0.000000
126	0.800000	126	0.000000
127	0.200000	127	0.000000
128	-0.000000	128	0.000000
129	1.000000	129	0.000000
130	0.000000	130	1.558000
131	0.000000	131	0.466000
132	1.000000	132	0.000000
133	-0.000000	133	0.000000
134	0.000000	134	0.628000
135	1.000000	135	0.000000
136	0.000000	136	0.654000
137	0.000000	137	1.108000
138	-0.000000	138	0.000000
139	1.000000	139	0.000000
140	1.000000	140	0.000000
141	-0.000000	141	0.000000
142	0.000000	142	0.340000
143	-0.000000	143	0.000000
144	1.000000	144	0.000000
145	-0.000000	145	0.000000
146	-0.000000	146	0.000000
147	-0.000000	147	0.000000
148	1.000000	148	0.000000
149	1.000000	149	0.000000
150	-0.000000	150	0.000000
151	-0.000000	151	0.000000
152	1.000000	152	0.000000
153	-0.000000	153	0.000000
154	0.000000	154	0.240000
155	0.000000	155	0.030000
156	1.000000	156	0.000000
157	-0.000000	157	0.000000
158	-0.000000	158	0.000000
159	1.000000	159	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
160	-0.000000	160	0.000000
161	1.000000	161	0.000000
162	-0.000000	162	0.000000
163	1.000000	163	0.000000
164	-0.000000	164	0.000000
165	0.000000	165	0.082000
166	1.000000	166	0.000000
167	-0.000000	167	0.000000
168	-0.000000	168	0.000000
169	0.000000	169	0.978000
170	-0.000000	170	0.000000
171	1.000000	171	0.000000
172	0.000000	172	0.316000
173	1.000000	173	0.000000
174	0.000000	174	1.154000
175	-0.000000	175	0.000000
176	1.000000	176	0.000000
177	-0.000000	177	0.000000
178	0.000000	178	0.562000
179	1.000000	179	0.000000
180	-0.000000	180	0.000000
181	1.000000	181	0.000000
182	-0.000000	182	0.000000
183	1.000000	183	0.000000
184	-0.000000	184	0.000000
185	1.000000	185	0.000000
186	-0.000000	186	0.000000
187	0.000000	187	0.082000
188	1.000000	188	0.000000
189	0.000000	189	0.020000
190	-0.000000	190	0.000000
191	1.000000	191	0.000000
192	-0.000000	192	0.000000
193	-0.000000	193	0.000000
194	1.000000	194	0.000000
195	-0.000000	195	0.000000
196	0.000000	196	0.870000
197	1.000000	197	0.000000
198	0.000000	198	0.314000
199	1.000000	199	0.000000
200	0.000000	200	0.056000
201	0.000000	201	0.788000
202	-0.000000	202	0.000000
203	1.000000	203	0.000000
204	0.000000	204	0.810000
205	0.600000	205	0.000000
206	0.400000	206	0.000000
207	0.000000	207	0.280000
208	1.000000	208	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
209	-0.000000	209	0.000000
210	-0.000000	210	0.000000
211	1.000000	211	0.000000
212	0.000000	212	0.074000
213	0.000000	213	0.114000
214	0.000000	214	0.216000
215	0.600000	215	0.000000
216	0.400000	216	0.000000
217	1.000000	217	0.000000
218	-0.000000	218	0.000000
219	-0.000000	219	0.000000
220	-0.000000	220	0.000000
221	1.000000	221	0.000000
222	0.000000	222	0.426000
223	1.000000	223	0.000000
224	-0.000000	224	0.000000
225	-0.000000	225	0.000000
226	1.000000	226	0.000000
227	0.000000	227	1.314000
228	0.000000	228	1.900000
229	0.000000	229	0.220000
230	1.000000	230	0.000000
231	0.000000	231	0.310000
232	0.400000	232	0.000000
233	-0.000000	233	0.000000
234	0.600000	234	0.000000
235	-0.000000	235	0.000000
236	1.000000	236	0.000000
237	0.000000	237	0.074000
238	-0.000000	238	0.000000
239	1.000000	239	0.000000
240	-0.000000	240	0.000000
241	1.000000	241	0.000000
242	0.000000	242	0.100000
243	0.000000	243	1.826000
244	1.000000	244	0.000000
245	-0.000000	245	0.000000
246	1.000000	246	0.000000
247	-0.000000	247	0.000000
248	1.000000	248	0.000000
249	0.000000	249	0.264000
250	1.000000	250	0.000000
251	0.000000	251	0.170000
252	0.600000	252	0.000000
253	0.000000	253	0.360000
254	0.400000	254	0.000000
255	-0.000000	255	0.000000
256	0.000000	256	0.330000
257	1.000000	257	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
258	0.000000	258	0.396000
259	1.000000	259	0.000000
260	0.000000	260	0.210000
261	0.000000	261	4.214000
262	1.000000	262	0.000000
263	-0.000000	263	0.000000
264	1.000000	264	0.000000
265	0.000000	265	1.484000
266	0.000000	266	2.512000
267	1.000000	267	0.000000
268	-0.000000	268	0.000000
269	-0.000000	269	0.000000
270	1.000000	270	0.000000
271	-0.000000	271	0.000000
272	0.000000	272	0.694000
273	-0.000000	273	0.000000
274	1.000000	274	0.000000
275	-0.000000	275	0.000000
276	-0.000000	276	0.000000
277	0.000000	277	0.454000
278	1.000000	278	0.000000
279	-0.000000	279	0.000000
280	1.000000	280	0.000000
281	-0.000000	281	0.000000
282	1.000000	282	0.000000
283	0.000000	283	0.600000
284	1.000000	284	0.000000
285	0.000000	285	0.128000
286	-0.000000	286	0.000000
287	0.000000	287	1.182000
288	1.000000	288	0.000000
289	-0.000000	289	0.000000
290	0.000000	290	0.020000
291	1.000000	291	0.000000
292	0.000000	292	0.320000
293	1.000000	293	0.000000
294	0.000000	294	0.384000
295	0.000000	295	0.208000
296	1.000000	296	0.000000
297	0.000000	297	1.128000
298	0.000000	298	0.186000
299	1.000000	299	0.000000
300	-0.000000	300	0.000000
301	1.000000	301	0.000000
302	-0.000000	302	0.000000
303	-0.000000	303	0.000000
304	-0.000000	304	0.000000
305	-0.000000	305	0.000000
306	1.000000	306	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
307	-0.000000	307	0.000000
308	1.000000	308	0.000000
309	-0.000000	309	0.000000
310	-0.000000	310	0.000000
311	1.000000	311	0.000000
312	-0.000000	312	0.000000
313	0.000000	313	2.016000
314	1.000000	314	0.000000
315	1.000000	315	0.000000
316	-0.000000	316	0.000000
317	-0.000000	317	0.000000
318	0.400000	318	0.000000
319	0.600000	319	0.000000
320	0.000000	320	0.632000
321	-0.000000	321	0.000000
322	1.000000	322	0.000000
323	0.000000	323	0.010000
324	0.000000	324	0.422000
325	1.000000	325	0.000000
326	-0.000000	326	0.000000
327	1.000000	327	0.000000
328	-0.000000	328	0.000000
329	-0.000000	329	0.000000
330	1.000000	330	0.000000
331	-0.000000	331	0.000000
332	0.000000	332	0.638000
333	-0.000000	333	0.000000
334	1.000000	334	0.000000
335	-0.000000	335	0.000000
336	0.000000	336	0.836000
337	0.000000	337	0.440000
338	1.000000	338	0.000000
339	-0.000000	339	0.000000
340	1.000000	340	0.000000
341	-0.000000	341	0.000000
342	-0.000000	342	0.000000
343	1.000000	343	0.000000
344	-0.000000	344	0.000000
345	-0.000000	345	0.000000
346	1.000000	346	0.000000
347	0.000000	347	0.844000
348	-0.000000	348	0.000000
349	1.000000	349	0.000000
350	-0.000000	350	0.000000
351	1.000000	351	0.000000
352	0.000000	352	0.110000
353	0.400000	353	0.000000
354	0.600000	354	0.000000
355	0.000000	355	0.252000

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Coordenada x	Valor x	Coordenada z	Valor z
356	0.000000	356	1.686000
357	1.000000	357	0.000000
358	-0.000000	358	0.000000
359	1.000000	359	0.000000
360	0.000000	360	1.064000
361	0.000000	361	0.880000
362	1.000000	362	0.000000
363	-0.000000	363	0.000000
364	-0.000000	364	0.000000
365	-0.000000	365	0.000000
366	1.000000	366	0.000000
367	0.000000	367	0.506000
368	1.000000	368	0.000000
369	0.000000	369	1.054000
370	-0.000000	370	0.000000
371	0.200000	371	0.000000
372	0.800000	372	0.000000
373	1.000000	373	0.000000
374	-0.000000	374	0.000000
375	-0.000000	375	0.000000
376	-0.000000	376	0.000000
377	1.000000	377	0.000000
378	-0.000000	378	0.000000
379	-0.000000	379	0.000000
380	-0.000000	380	0.000000
381	1.000000	381	0.000000
382	1.000000	382	0.000000
383	-0.000000	383	0.000000
384	0.000000	384	0.450000
385	-0.000000	385	0.000000
386	1.000000	386	0.000000
387	-0.000000	387	0.000000
388	-0.000000	388	0.000000
389	1.000000	389	0.000000
390	-0.000000	390	0.000000
391	0.000000	391	0.792000
392	1.000000	392	0.000000
393	-0.000000	393	0.000000
394	-0.000000	394	0.000000
395	1.000000	395	0.000000
396	-0.000000	396	0.000000
397	1.000000	397	0.000000
398	0.800000	398	0.000000
399	0.200000	399	0.000000
400	-0.000000	400	0.000000
401	-0.000000	401	0.000000
402	1.000000	402	0.000000
403	0.000000	403	0.402000
404	1.000000	404	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
405	0.000000	405	0.184000
406	-0.000000	406	0.000000
407	-0.000000	407	0.000000
408	0.000000	408	2.774000
409	1.000000	409	0.000000
410	1.000000	410	0.000000
411	-0.000000	411	0.000000
412	-0.000000	412	0.000000
413	-0.000000	413	0.000000
414	1.000000	414	0.000000
415	1.000000	415	0.000000
416	-0.000000	416	0.000000
417	-0.000000	417	0.000000
418	1.000000	418	0.000000
419	1.000000	419	0.000000
420	-0.000000	420	0.000000
421	-0.000000	421	0.000000
422	1.000000	422	0.000000
423	0.000000	423	0.714000
424	1.000000	424	0.000000
425	0.000000	425	1.024000
426	-0.000000	426	0.000000
427	-0.000000	427	0.000000
428	1.000000	428	0.000000
429	0.000000	429	0.616000
430	1.000000	430	0.000000
431	0.000000	431	0.612000
432	-0.000000	432	0.000000
433	1.000000	433	0.000000
434	0.000000	434	0.264000
435	-0.000000	435	0.000000
436	1.000000	436	0.000000
437	-0.000000	437	0.000000
438	-0.000000	438	0.000000
439	1.000000	439	0.000000
440	-0.000000	440	0.000000
441	1.000000	441	0.000000
442	-0.000000	442	0.000000
443	0.000000	443	3.646000
444	0.000000	444	0.406000
445	1.000000	445	0.000000
446	0.000000	446	0.090000
447	0.000000	447	0.470000
448	1.000000	448	0.000000
449	-0.000000	449	0.000000
450	1.000000	450	0.000000
451	-0.000000	451	0.000000
452	-0.000000	452	0.000000
453	-0.000000	453	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
454	-0.000000	454	0.000000
455	1.000000	455	0.000000
456	1.000000	456	0.000000
457	0.000000	457	2.122000
458	-0.000000	458	0.000000
459	-0.000000	459	0.000000
460	1.000000	460	0.000000
461	-0.000000	461	0.000000
462	0.000000	462	0.030000
463	1.000000	463	0.000000
464	0.000000	464	0.310000
465	1.000000	465	0.000000
466	0.000000	466	0.140000
467	-0.000000	467	0.000000
468	-0.000000	468	0.000000
469	0.600000	469	0.000000
470	0.400000	470	0.000000
471	1.000000	471	0.000000
472	0.000000	472	0.324000
473	-0.000000	473	0.000000
474	0.600000	474	0.000000
475	0.400000	475	0.000000
476	0.000000	476	0.260000
477	0.000000	477	0.326000
478	1.000000	478	0.000000
479	0.000000	479	0.234000
480	-0.000000	480	0.000000
481	1.000000	481	0.000000
482	0.000000	482	0.714000
483	-0.000000	483	0.000000
484	-0.000000	484	0.000000
485	1.000000	485	0.000000
486	1.000000	486	0.000000
487	-0.000000	487	0.000000
488	0.000000	488	0.270000
489	0.000000	489	0.106000
490	0.600000	490	0.000000
491	0.400000	491	0.000000
492	0.600000	492	0.000000
493	0.400000	493	0.000000
494	0.000000	494	0.204000
495	0.000000	495	0.712000
496	-0.000000	496	0.000000
497	1.000000	497	0.000000
498	-0.000000	498	0.000000
499	1.000000	499	0.000000
500	-0.000000	500	0.000000
501	0.000000	501	0.406000
502	1.000000	502	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
503	0.000000	503	0.490000
504	0.000000	504	0.876000
505	0.000000	505	0.500000
506	1.000000	506	0.000000
507	0.000000	507	1.324000
508	0.000000	508	0.212000
509	1.000000	509	0.000000
510	1.000000	510	0.000000
511	0.000000	511	0.144000
512	0.000000	512	0.110000
513	1.000000	513	0.000000
514	-0.000000	514	0.000000
515	-0.000000	515	0.000000
516	0.400000	516	0.000000
517	0.600000	517	0.000000
518	-0.000000	518	0.000000
519	-0.000000	519	0.000000
520	1.000000	520	0.000000
521	-0.000000	521	0.000000
522	-0.000000	522	0.000000
523	1.000000	523	0.000000
524	-0.000000	524	0.000000
525	-0.000000	525	0.000000
526	1.000000	526	0.000000
527	-0.000000	527	0.000000
528	1.000000	528	0.000000
529	-0.000000	529	0.000000
530	-0.000000	530	0.000000
531	1.000000	531	0.000000
532	-0.000000	532	0.000000
533	-0.000000	533	0.000000
534	0.800000	534	0.000000
535	0.200000	535	0.000000
536	0.000000	536	0.436000
537	1.000000	537	0.000000
538	0.000000	538	0.134000
539	0.000000	539	0.678000
540	0.000000	540	0.336000
541	0.000000	541	0.160000
542	1.000000	542	0.000000
543	0.000000	543	0.506000
544	1.000000	544	0.000000
545	-0.000000	545	0.000000
546	0.000000	546	1.114000
547	1.000000	547	0.000000
548	0.000000	548	0.182000
549	0.000000	549	0.502000
550	1.000000	550	0.000000
551	0.000000	551	0.210000

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Coordenada x	Valor x	Coordenada z	Valor z
552	0.000000	552	0.306000
553	1.000000	553	0.000000
554	-0.000000	554	0.000000
555	0.000000	555	0.036000
556	-0.000000	556	0.000000
557	1.000000	557	0.000000
558	1.000000	558	0.000000
559	-0.000000	559	0.000000
560	-0.000000	560	0.000000
561	1.000000	561	0.000000
562	-0.000000	562	0.000000
563	0.000000	563	2.226000
564	0.000000	564	0.054000
565	1.000000	565	0.000000
566	0.000000	566	0.130000
567	-0.000000	567	0.000000
568	1.000000	568	0.000000
569	-0.000000	569	0.000000
570	-0.000000	570	0.000000
571	0.800000	571	0.000000
572	0.200000	572	0.000000
573	0.000000	573	0.716000
574	1.000000	574	0.000000
575	-0.000000	575	0.000000
576	1.000000	576	0.000000
577	-0.000000	577	0.000000
578	-0.000000	578	0.000000
579	0.000000	579	0.784000
580	0.800000	580	0.000000
581	0.200000	581	0.000000
582	-0.000000	582	0.000000
583	1.000000	583	0.000000
584	-0.000000	584	0.000000
585	0.000000	585	0.054000
586	-0.000000	586	0.000000
587	1.000000	587	0.000000
588	-0.000000	588	0.000000
589	0.800000	589	0.000000
590	0.200000	590	0.000000
591	-0.000000	591	0.000000
592	0.600000	592	0.000000
593	0.400000	593	0.000000
594	-0.000000	594	0.000000
595	1.000000	595	0.000000
596	-0.000000	596	0.000000
597	0.000000	597	0.626000
598	1.000000	598	0.000000
599	-0.000000	599	0.000000
600	-0.000000	600	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
601	1.000000	601	0.000000
602	-0.000000	602	0.000000
603	0.000000	603	1.356000
604	1.000000	604	0.000000
605	0.000000	605	0.574000
606	-0.000000	606	0.000000
607	0.000000	607	1.262000
608	1.000000	608	0.000000
609	-0.000000	609	0.000000
610	0.400000	610	0.000000
611	0.600000	611	0.000000
612	-0.000000	612	0.000000
613	1.000000	613	0.000000
614	-0.000000	614	0.000000
615	0.000000	615	0.790000
616	1.000000	616	0.000000
617	0.000000	617	0.864000
618	-0.000000	618	0.000000
619	0.000000	619	4.024000
620	1.000000	620	0.000000
621	-0.000000	621	0.000000
622	1.000000	622	0.000000
623	-0.000000	623	0.000000
624	-0.000000	624	0.000000
625	1.000000	625	0.000000
626	-0.000000	626	0.000000
627	-0.000000	627	0.000000
628	0.800000	628	0.000000
629	0.200000	629	0.000000
630	-0.000000	630	0.000000
631	0.800000	631	0.000000
632	0.200000	632	0.000000
633	-0.000000	633	0.000000
634	0.600000	634	0.000000
635	0.400000	635	0.000000
636	0.000000	636	0.032000
637	0.600000	637	0.000000
638	0.400000	638	0.000000
639	0.000000	639	0.630000
640	1.000000	640	0.000000
641	-0.000000	641	0.000000
642	-0.000000	642	0.000000
643	1.000000	643	0.000000
644	0.000000	644	0.424000
645	1.000000	645	0.000000
646	-0.000000	646	0.000000
647	-0.000000	647	0.000000
648	1.000000	648	0.000000
649	-0.000000	649	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
650	0.000000	650	1.188000
651	-0.000000	651	0.000000
652	0.800000	652	0.000000
653	0.200000	653	0.000000
654	-0.000000	654	0.000000
655	0.800000	655	0.000000
656	0.200000	656	0.000000
657	-0.000000	657	0.000000
658	1.000000	658	0.000000
659	-0.000000	659	0.000000
660	0.000000	660	0.004000
661	1.000000	661	0.000000
662	0.000000	662	0.200000
663	-0.000000	663	0.000000
664	1.000000	664	0.000000
665	-0.000000	665	0.000000
666	0.000000	666	0.264000
667	1.000000	667	0.000000
668	0.000000	668	0.348000
669	0.000000	669	0.416000
670	1.000000	670	0.000000
671	-0.000000	671	0.000000
672	-0.000000	672	0.000000
673	1.000000	673	0.000000
674	-0.000000	674	0.000000
675	-0.000000	675	0.000000
676	1.000000	676	0.000000
677	-0.000000	677	0.000000
678	-0.000000	678	0.000000
679	1.000000	679	0.000000
680	-0.000000	680	0.000000
681	-0.000000	681	0.000000
682	1.000000	682	0.000000
683	-0.000000	683	0.000000
684	-0.000000	684	0.000000
685	1.000000	685	0.000000
686	0.000000	686	0.100000
687	-0.000000	687	0.000000
688	1.000000	688	0.000000
689	0.000000	689	0.010000
690	-0.000000	690	0.000000
691	-0.000000	691	0.000000
692	1.000000	692	0.000000
693	1.000000	693	0.000000
694	-0.000000	694	0.000000
695	-0.000000	695	0.000000
696	-0.000000	696	0.000000
697	1.000000	697	0.000000
698	-0.000000	698	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
699	1.000000	699	0.000000
700	-0.000000	700	0.000000
701	-0.000000	701	0.000000
702	0.000000	702	1.724000
703	1.000000	703	0.000000
704	-0.000000	704	0.000000
705	-0.000000	705	0.000000
706	-0.000000	706	0.000000
707	1.000000	707	0.000000
708	0.000000	708	1.690000
709	1.000000	709	0.000000
710	-0.000000	710	0.000000
711	-0.000000	711	0.000000
712	1.000000	712	0.000000
713	-0.000000	713	0.000000
714	0.800000	714	0.000000
715	-0.000000	715	0.000000
716	0.200000	716	0.000000
717	1.000000	717	0.000000
718	-0.000000	718	0.000000
719	-0.000000	719	0.000000
720	0.000000	720	0.534000
721	1.000000	721	0.000000
722	-0.000000	722	0.000000
723	0.000000	723	1.084000
724	1.000000	724	0.000000
725	-0.000000	725	0.000000
726	0.000000	726	1.298000
727	1.000000	727	0.000000
728	-0.000000	728	0.000000
729	0.000000	729	1.356000
730	1.000000	730	0.000000
731	0.000000	731	0.704000
732	1.000000	732	0.000000
733	-0.000000	733	0.000000
734	-0.000000	734	0.000000
735	0.000000	735	0.000000
736	1.000000	736	0.000000
737	0.000000	737	0.454000
738	-0.000000	738	0.000000
739	1.000000	739	0.000000
740	0.000000	740	0.684000
741	0.000000	741	0.592000
742	1.000000	742	0.000000
743	0.000000	743	0.110000
744	0.000000	744	0.278000
745	1.000000	745	0.000000
746	-0.000000	746	0.000000
747	-0.000000	747	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
748	1.000000	748	0.000000
749	-0.000000	749	0.000000
750	0.800000	750	0.000000
751	-0.000000	751	0.000000
752	0.200000	752	0.000000
753	0.200000	753	0.000000
754	0.800000	754	0.000000
755	0.000000	755	0.464000
756	-0.000000	756	0.000000
757	1.000000	757	0.000000
758	-0.000000	758	0.000000
759	-0.000000	759	0.000000
760	1.000000	760	0.000000
761	-0.000000	761	0.000000
762	0.000000	762	1.846000
763	1.000000	763	0.000000
764	-0.000000	764	0.000000
765	-0.000000	765	0.000000
766	1.000000	766	0.000000
767	-0.000000	767	0.000000
768	1.000000	768	0.000000
769	-0.000000	769	0.000000
770	-0.000000	770	0.000000
771	0.000000	771	0.582000
772	1.000000	772	0.000000
773	0.000000	773	0.090000
774	-0.000000	774	0.000000
775	1.000000	775	0.000000
776	-0.000000	776	0.000000
777	-0.000000	777	0.000000
778	1.000000	778	0.000000
779	-0.000000	779	0.000000
780	0.000000	780	0.630000
781	0.000000	781	1.113000
782	1.000000	782	0.000000
783	0.000000	783	0.196000
784	1.000000	784	0.000000
785	0.000000	785	0.462000
786	0.000000	786	0.448000
787	-0.000000	787	0.000000
788	1.000000	788	0.000000
789	-0.000000	789	0.000000
790	1.000000	790	0.000000
791	-0.000000	791	0.000000
792	-0.000000	792	0.000000
793	1.000000	793	0.000000
794	0.000000	794	0.232000
795	-0.000000	795	0.000000
796	1.000000	796	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
797	-0.000000	797	0.000000
798	-0.000000	798	0.000000
799	1.000000	799	0.000000
800	-0.000000	800	0.000000
801	-0.000000	801	0.000000
802	1.000000	802	0.000000
803	-0.000000	803	0.000000
804	1.000000	804	0.000000
805	0.000000	805	1.122000
806	-0.000000	806	0.000000
807	1.000000	807	0.000000
808	-0.000000	808	0.000000
809	-0.000000	809	0.000000
810	-0.000000	810	0.000000
811	1.000000	811	0.000000
812	-0.000000	812	0.000000
813	-0.000000	813	0.000000
814	1.000000	814	0.000000
815	-0.000000	815	0.000000
816	-0.000000	816	0.000000
817	0.800000	817	0.000000
818	0.200000	818	0.000000
819	-0.000000	819	0.000000
820	1.000000	820	0.000000
821	-0.000000	821	0.000000
822	1.000000	822	0.000000
823	-0.000000	823	0.000000
824	-0.000000	824	0.000000
825	-0.000000	825	0.000000
826	1.000000	826	0.000000
827	-0.000000	827	0.000000
828	0.000000	828	0.020000
829	-0.000000	829	0.000000
830	1.000000	830	0.000000
831	-0.000000	831	0.000000
832	-0.000000	832	0.000000
833	1.000000	833	0.000000
834	0.000000	834	0.506000
835	1.000000	835	0.000000
836	0.000000	836	0.694000
837	-0.000000	837	0.000000
838	-0.000000	838	0.000000
839	1.000000	839	0.000000
840	0.000000	840	0.192000
841	-0.000000	841	0.000000
842	1.000000	842	0.000000
843	-0.000000	843	0.000000
844	-0.000000	844	0.000000
845	1.000000	845	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
846	-0.000000	846	0.000000
847	1.000000	847	0.000000
848	-0.000000	848	0.000000
849	1.000000	849	0.000000
850	-0.000000	850	0.000000
851	-0.000000	851	0.000000
852	0.000000	852	0.494000
853	-0.000000	853	0.000000
854	1.000000	854	0.000000
855	-0.000000	855	0.000000
856	1.000000	856	0.000000
857	-0.000000	857	0.000000
858	-0.000000	858	0.000000
859	1.000000	859	0.000000
860	-0.000000	860	0.000000
861	-0.000000	861	0.000000
862	1.000000	862	0.000000
863	-0.000000	863	0.000000
864	-0.000000	864	0.000000
865	-0.000000	865	0.000000
866	1.000000	866	0.000000
867	-0.000000	867	0.000000
868	1.000000	868	0.000000
869	-0.000000	869	0.000000
870	0.000000	870	0.582000
871	1.000000	871	0.000000
872	-0.000000	872	0.000000
873	-0.000000	873	0.000000
874	1.000000	874	0.000000
875	-0.000000	875	0.000000
876	1.000000	876	0.000000
877	0.000000	877	0.923000
878	-0.000000	878	0.000000
879	-0.000000	879	0.000000
880	-0.000000	880	0.000000
881	1.000000	881	0.000000
882	1.000000	882	0.000000
883	-0.000000	883	0.000000
884	-0.000000	884	0.000000
885	1.000000	885	0.000000
886	-0.000000	886	0.000000
887	-0.000000	887	0.000000
888	1.000000	888	0.000000
889	-0.000000	889	0.000000
890	-0.000000	890	0.000000
891	-0.000000	891	0.000000
892	0.000000	892	1.123000
893	1.000000	893	0.000000
894	1.000000	894	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
895	-0.000000	895	0.000000
896	-0.000000	896	0.000000
897	0.000000	897	1.550000
898	1.000000	898	0.000000
899	-0.000000	899	0.000000
900	0.000000	900	0.418000
901	1.000000	901	0.000000
902	-0.000000	902	0.000000
903	1.000000	903	0.000000
904	-0.000000	904	0.000000
905	0.000000	905	1.566000
906	0.000000	906	0.882000
907	-0.000000	907	0.000000
908	1.000000	908	0.000000
909	0.000000	909	0.432000
910	0.000000	910	0.080000
911	1.000000	911	0.000000
912	-0.000000	912	0.000000
913	1.000000	913	0.000000
914	-0.000000	914	0.000000
915	-0.000000	915	0.000000
916	1.000000	916	0.000000
917	-0.000000	917	0.000000
918	-0.000000	918	0.000000
919	-0.000000	919	0.000000
920	1.000000	920	0.000000
921	-0.000000	921	0.000000
922	0.000000	922	0.210000
923	1.000000	923	0.000000
924	1.000000	924	0.000000
925	0.000000	925	0.074000
926	0.000000	926	0.282000
927	-0.000000	927	0.000000
928	0.000000	928	0.026000
929	1.000000	929	0.000000
930	0.000000	930	0.576000
931	1.000000	931	0.000000
932	-0.000000	932	0.000000
933	0.000000	933	0.106000
934	1.000000	934	0.000000
935	0.000000	935	0.192000
936	0.000000	936	1.528000
937	0.000000	937	2.734000
938	1.000000	938	0.000000
939	1.000000	939	0.000000
940	0.000000	940	0.486000
941	1.000000	941	0.000000
942	0.000000	942	0.084000
943	0.000000	943	0.292000

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Coordenada x	Valor x	Coordenada z	Valor z
944	-0.000000	944	0.000000
945	0.000000	945	1.938000
946	1.000000	946	0.000000
947	-0.000000	947	0.000000
948	1.000000	948	0.000000
949	-0.000000	949	0.000000
950	0.600000	950	0.000000
951	0.400000	951	0.000000
952	1.000000	952	0.000000
953	-0.000000	953	0.000000
954	-0.000000	954	0.000000
955	1.000000	955	0.000000
956	0.000000	956	0.100000
957	-0.000000	957	0.000000
958	0.000000	958	0.582000
959	1.000000	959	0.000000
960	0.000000	960	0.202000
961	-0.000000	961	0.000000
962	1.000000	962	0.000000
963	-0.000000	963	0.000000
964	1.000000	964	0.000000
965	1.000000	965	0.000000
966	0.000000	966	0.824000
967	0.000000	967	1.256000
968	0.000000	968	1.184000
969	1.000000	969	0.000000
970	0.000000	970	0.112000
971	-0.000000	971	0.000000
972	1.000000	972	0.000000
973	-0.000000	973	0.000000
974	0.000000	974	0.148000
975	0.000000	975	0.432000
976	1.000000	976	0.000000
977	0.400000	977	0.000000
978	0.600000	978	0.000000
979	-0.000000	979	0.000000
980	1.000000	980	0.000000
981	-0.000000	981	0.000000
982	0.000000	982	0.290000
983	-0.000000	983	0.000000
984	1.000000	984	0.000000
985	-0.000000	985	0.000000
986	0.000000	986	0.020000
987	1.000000	987	0.000000
988	0.000000	988	0.242000
989	1.000000	989	0.000000
990	-0.000000	990	0.000000
991	-0.000000	991	0.000000
992	1.000000	992	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
993	0.000000	993	0.040000
994	-0.000000	994	0.000000
995	0.000000	995	0.130000
996	1.000000	996	0.000000
997	0.000000	997	0.286000
998	-0.000000	998	0.000000
999	1.000000	999	0.000000
1000	0.600000	1000	0.000000
1001	0.400000	1001	0.000000
1002	0.600000	1002	0.000000
1003	0.400000	1003	0.000000
1004	1.000000	1004	0.000000
1005	-0.000000	1005	0.000000
1006	0.000000	1006	0.424000
1007	1.000000	1007	0.000000
1008	-0.000000	1008	0.000000
1009	-0.000000	1009	0.000000
1010	-0.000000	1010	0.000000
1011	1.000000	1011	0.000000
1012	0.000000	1012	0.310000
1013	0.000000	1013	0.020000
1014	0.400000	1014	0.000000
1015	0.600000	1015	0.000000
1016	0.000000	1016	0.596000
1017	-0.000000	1017	0.000000
1018	1.000000	1018	0.000000
1019	1.000000	1019	0.000000
1020	-0.000000	1020	0.000000
1021	0.000000	1021	0.604000
1022	-0.000000	1022	0.000000
1023	1.000000	1023	0.000000
1024	-0.000000	1024	0.000000
1025	0.000000	1025	0.064000
1026	1.000000	1026	0.000000
1027	0.000000	1027	0.664000
1028	0.000000	1028	0.260000
1029	1.000000	1029	0.000000
1030	0.000000	1030	0.734000
1031	0.000000	1031	0.320000
1032	1.000000	1032	0.000000
1033	-0.000000	1033	0.000000
1034	-0.000000	1034	0.000000
1035	1.000000	1035	0.000000
1036	-0.000000	1036	0.000000
1037	1.000000	1037	0.000000
1038	0.000000	1038	0.174000
1039	0.400000	1039	0.000000
1040	0.600000	1040	0.000000
1041	0.000000	1041	0.666000

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Coordenada x	Valor x	Coordenada z	Valor z
1042	1.000000	1042	0.000000
1043	-0.000000	1043	0.000000
1044	1.000000	1044	0.000000
1045	-0.000000	1045	0.000000
1046	0.000000	1046	0.520000
1047	0.000000	1047	0.826000
1048	1.000000	1048	0.000000
1049	-0.000000	1049	0.000000
1050	-0.000000	1050	0.000000
1051	1.000000	1051	0.000000
1052	0.000000	1052	0.200000
1053	-0.000000	1053	0.000000
1054	1.000000	1054	0.000000
1055	0.000000	1055	0.434000
1056	-0.000000	1056	0.000000
1057	-0.000000	1057	0.000000
1058	1.000000	1058	0.000000
1059	1.000000	1059	0.000000
1060	0.000000	1060	0.064000
1061	-0.000000	1061	0.000000
1062	1.000000	1062	0.000000
1063	-0.000000	1063	0.000000
1064	0.000000	1064	0.390000
1065	-0.000000	1065	0.000000
1066	-0.000000	1066	0.000000
1067	1.000000	1067	0.000000
1068	0.000000	1068	0.296000
1069	-0.000000	1069	0.000000
1070	1.000000	1070	0.000000
1071	0.000000	1071	0.712000
1072	1.000000	1072	0.000000
1073	-0.000000	1073	0.000000
1074	0.000000	1074	0.274000
1075	1.000000	1075	0.000000
1076	0.000000	1076	0.190000
1077	1.000000	1077	0.000000
1078	0.000000	1078	-0.000000
1079	0.000000	1079	-0.000000
1080	0.000000	1080	0.330000
1081	1.000000	1081	0.000000
1082	0.000000	1082	0.444000
1083	-0.000000	1083	0.000000
1084	1.000000	1084	0.000000
1085	-0.000000	1085	0.000000
1086	0.000000	1086	0.240000
1087	1.000000	1087	0.000000
1088	-0.000000	1088	0.000000
1089	-0.000000	1089	0.000000
1090	1.000000	1090	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
1091	-0.000000	1091	0.000000
1092	-0.000000	1092	0.000000
1093	1.000000	1093	0.000000
1094	-0.000000	1094	0.000000
1095	0.000000	1095	0.180000
1096	1.000000	1096	0.000000
1097	0.000000	1097	0.270000
1098	0.000000	1098	1.106000
1099	1.000000	1099	0.000000
1100	0.000000	1100	0.310000
1101	1.000000	1101	0.000000
1102	-0.000000	1102	0.000000
1103	0.000000	1103	1.386000
1104	0.000000	1104	1.130000
1105	0.000000	1105	0.542000
1106	1.000000	1106	0.000000
1107	0.000000	1107	0.968000
1108	1.000000	1108	0.000000
1109	-0.000000	1109	0.000000
1110	0.000000	1110	1.520000
1111	0.000000	1111	1.044000
1112	1.000000	1112	0.000000
1113	0.000000	1113	0.500000
1114	0.000000	1114	0.452000
1115	1.000000	1115	0.000000
1116	0.000000	1116	0.202000
1117	-0.000000	1117	0.000000
1118	1.000000	1118	0.000000
1119	0.000000	1119	0.154000
1120	1.000000	1120	0.000000
1121	-0.000000	1121	0.000000
1122	0.000000	1122	0.500000
1123	0.400000	1123	0.000000
1124	0.600000	1124	0.000000
1125	0.000000	1125	1.122000
1126	0.000000	1126	0.562000
1127	1.000000	1127	0.000000
1128	-0.000000	1128	0.000000
1129	1.000000	1129	0.000000
1130	-0.000000	1130	0.000000
1131	1.000000	1131	0.000000
1132	1.000000	1132	0.000000
1133	0.000000	1133	0.566000
1134	1.000000	1134	0.000000
1135	0.000000	1135	0.158000
1136	0.000000	1136	0.126000
1137	1.000000	1137	0.000000
1138	-0.000000	1138	0.000000
1139	-0.000000	1139	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
1140	1.000000	1140	0.000000
1141	0.000000	1141	0.178000
1142	0.000000	1142	0.208000
1143	-0.000000	1143	0.000000
1144	1.000000	1144	0.000000
1145	-0.000000	1145	0.000000
1146	0.000000	1146	0.022000
1147	0.000000	1147	0.030000
1148	1.000000	1148	0.000000
1149	0.400000	1149	0.000000
1150	0.600000	1150	0.000000
1151	-0.000000	1151	0.000000
1152	-0.000000	1152	0.000000
1153	1.000000	1153	0.000000
1154	0.000000	1154	0.592000
1155	0.000000	1155	0.152000
1156	1.000000	1156	0.000000
1157	-0.000000	1157	0.000000
1158	0.000000	1158	0.216000
1159	0.000000	1159	0.184000
1160	1.000000	1160	0.000000
1161	-0.000000	1161	0.000000
1162	0.800000	1162	0.000000
1163	0.200000	1163	0.000000
1164	0.400000	1164	0.000000
1165	-0.000000	1165	0.000000
1166	0.600000	1166	0.000000
1167	0.000000	1167	0.586000
1168	0.000000	1168	0.014000
1169	1.000000	1169	0.000000
1170	1.000000	1170	0.000000
1171	0.000000	1171	0.268000
1172	-0.000000	1172	0.000000
1173	1.000000	1173	0.000000
1174	0.000000	1174	0.158000
1175	-0.000000	1175	0.000000
1176	0.000000	1176	1.092000
1177	1.000000	1177	0.000000
1178	0.000000	1178	0.126000
1179	1.000000	1179	0.000000
1180	0.000000	1180	0.168000
1181	-0.000000	1181	0.000000
1182	0.800000	1182	0.000000
1183	0.200000	1183	0.000000
1184	-0.000000	1184	0.000000
1185	1.000000	1185	0.000000
1186	0.000000	1186	0.406000
1187	0.000000	1187	0.070000
1188	0.000000	1188	0.398000

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Coordenada x	Valor x	Coordenada z	Valor z
1189	1.000000	1189	0.000000
1190	0.000000	1190	0.384000
1191	0.000000	1191	0.100000
1192	1.000000	1192	0.000000
1193	0.000000	1193	0.574000
1194	1.000000	1194	0.000000
1195	0.000000	1195	0.030000
1196	0.000000	1196	0.662000
1197	1.000000	1197	0.000000
1198	0.000000	1198	0.050000
1199	1.000000	1199	0.000000
1200	-0.000000	1200	0.000000
1201	-0.000000	1201	0.000000
1202	-0.000000	1202	0.000000
1203	-0.000000	1203	0.000000
1204	1.000000	1204	0.000000
1205	0.000000	1205	0.302000
1206	1.000000	1206	0.000000
1207	-0.000000	1207	0.000000
1208	-0.000000	1208	0.000000
1209	0.800000	1209	0.000000
1210	0.200000	1210	0.000000
1211	1.000000	1211	0.000000
1212	0.000000	1212	1.020000
1213	0.000000	1213	2.184000
1214	1.000000	1214	0.000000
1215	-0.000000	1215	0.000000
1216	0.000000	1216	0.632000
1217	-0.000000	1217	0.000000
1218	1.000000	1218	0.000000
1219	-0.000000	1219	0.000000
1220	0.000000	1220	0.132000
1221	0.000000	1221	3.418000
1222	1.000000	1222	0.000000
1223	0.000000	1223	0.646000
1224	1.000000	1224	0.000000
1225	0.000000	1225	0.032000
1226	1.000000	1226	0.000000
1227	0.000000	1227	0.260000
1228	0.000000	1228	0.342000
1229	1.000000	1229	0.000000
1230	0.000000	1230	0.208000
1231	0.000000	1231	0.268000
1232	1.000000	1232	0.000000
1233	-0.000000	1233	0.000000
1234	-0.000000	1234	0.000000
1235	0.000000	1235	0.192000
1236	1.000000	1236	0.000000
1237	-0.000000	1237	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
1238	-0.000000	1238	0.000000
1239	-0.000000	1239	0.000000
1240	1.000000	1240	0.000000
1241	0.000000	1241	0.170000
1242	1.000000	1242	0.000000
1243	-0.000000	1243	0.000000
1244	1.000000	1244	0.000000
1245	0.000000	1245	0.012000
1246	0.800000	1246	0.000000
1247	0.200000	1247	0.000000
1248	0.000000	1248	0.032000
1249	0.000000	1249	0.190000
1250	1.000000	1250	0.000000
1251	0.000000	1251	0.132000
1252	1.000000	1252	0.000000
1253	0.000000	1253	1.488000
1254	0.000000	1254	0.328000
1255	1.000000	1255	0.000000
1256	-0.000000	1256	0.000000
1257	0.000000	1257	0.712000
1258	1.000000	1258	0.000000
1259	0.000000	1259	0.320000
1260	0.000000	1260	1.162000
1261	-0.000000	1261	0.000000
1262	1.000000	1262	0.000000
1263	-0.000000	1263	0.000000
1264	1.000000	1264	0.000000
1265	-0.000000	1265	0.000000
1266	0.000000	1266	0.232000
1267	0.400000	1267	0.000000
1268	-0.000000	1268	0.000000
1269	0.600000	1269	0.000000
1270	0.000000	1270	0.612000
1271	1.000000	1271	0.000000
1272	0.000000	1272	0.438000
1273	1.000000	1273	0.000000
1274	0.000000	1274	0.036000
1275	-0.000000	1275	0.000000
1276	0.000000	1276	1.420000
1277	1.000000	1277	0.000000
1278	1.000000	1278	0.000000
1279	-0.000000	1279	0.000000
1280	0.600000	1280	0.000000
1281	0.400000	1281	0.000000
1282	-0.000000	1282	0.000000
1283	1.000000	1283	0.000000
1284	1.000000	1284	0.000000
1285	-0.000000	1285	0.000000
1286	0.600000	1286	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
1287	0.000000	1287	5.644000
1288	0.400000	1288	0.000000
1289	1.000000	1289	0.000000
1290	0.000000	1290	1.678000
1291	-0.000000	1291	0.000000
1292	0.000000	1292	0.184000
1293	1.000000	1293	0.000000
1294	-0.000000	1294	0.000000
1295	0.800000	1295	0.000000
1296	0.200000	1296	0.000000
1297	-0.000000	1297	0.000000
1298	0.000000	1298	0.410000
1299	0.400000	1299	0.000000
1300	0.600000	1300	0.000000
1301	0.000000	1301	0.340000
1302	1.000000	1302	0.000000
1303	-0.000000	1303	0.000000
1304	1.000000	1304	0.000000
1305	-0.000000	1305	0.000000
1306	0.000000	1306	0.524000
1307	0.000000	1307	0.016000
1308	-0.000000	1308	0.000000
1309	1.000000	1309	0.000000
1310	0.200000	1310	0.000000
1311	0.800000	1311	0.000000
1312	-0.000000	1312	0.000000
1313	1.000000	1313	0.000000
1314	0.000000	1314	0.140000
1315	0.800000	1315	0.000000
1316	0.200000	1316	0.000000
1317	1.000000	1317	0.000000
1318	0.000000	1318	0.060000
1319	0.000000	1319	0.140000
1320	-0.000000	1320	0.000000
1321	1.000000	1321	0.000000
1322	-0.000000	1322	0.000000
1323	0.000000	1323	1.028000
1324	-0.000000	1324	0.000000
1325	1.000000	1325	0.000000
1326	-0.000000	1326	0.000000
1327	1.000000	1327	0.000000
1328	0.000000	1328	0.782000
1329	0.600000	1329	0.000000
1330	0.400000	1330	0.000000
1331	0.000000	1331	0.300000
1332	0.000000	1332	0.030000
1333	0.000000	1333	0.092000
1334	1.000000	1334	0.000000
1335	1.000000	1335	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
1336	-0.000000	1336	0.000000
1337	-0.000000	1337	0.000000
1338	-0.000000	1338	0.000000
1339	-0.000000	1339	0.000000
1340	1.000000	1340	0.000000
1341	1.000000	1341	0.000000
1342	-0.000000	1342	0.000000
1343	0.000000	1343	0.070000
1344	1.000000	1344	0.000000
1345	0.000000	1345	2.440000
1346	-0.000000	1346	0.000000
1347	0.000000	1347	0.004000
1348	1.000000	1348	0.000000
1349	1.000000	1349	0.000000
1350	0.000000	1350	0.726000
1351	-0.000000	1351	0.000000
1352	1.000000	1352	0.000000
1353	0.000000	1353	0.834000
1354	0.000000	1354	0.804000
1355	-0.000000	1355	0.000000
1356	1.000000	1356	0.000000
1357	0.000000	1357	0.472000
1358	1.000000	1358	0.000000
1359	-0.000000	1359	0.000000
1360	0.800000	1360	0.000000
1361	0.200000	1361	0.000000
1362	0.400000	1362	0.000000
1363	0.600000	1363	0.000000
1364	0.400000	1364	0.000000
1365	0.000000	1365	0.664000
1366	0.600000	1366	0.000000
1367	0.000000	1367	0.184000
1368	1.000000	1368	0.000000
1369	0.000000	1369	0.594000
1370	0.000000	1370	0.240000
1371	1.000000	1371	0.000000
1372	1.000000	1372	0.000000
1373	-0.000000	1373	0.000000
1374	1.000000	1374	0.000000
1375	0.000000	1375	4.104000
1376	-0.000000	1376	0.000000
1377	1.000000	1377	0.000000
1378	0.000000	1378	0.774000
1379	0.000000	1379	1.818000
1380	1.000000	1380	0.000000
1381	0.000000	1381	0.082000
1382	0.000000	1382	0.398000
1383	1.000000	1383	0.000000
1384	0.000000	1384	0.220000

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Coordenada x	Valor x	Coordenada z	Valor z
1385	0.000000	1385	0.286000
1386	1.000000	1386	0.000000
1387	0.000000	1387	0.590000
1388	1.000000	1388	0.000000
1389	0.000000	1389	0.572000
1390	-0.000000	1390	0.000000
1391	1.000000	1391	0.000000
1392	0.000000	1392	0.612000
1393	0.800000	1393	0.000000
1394	0.200000	1394	0.000000
1395	0.400000	1395	0.000000
1396	0.600000	1396	0.000000
1397	0.000000	1397	0.290000
1398	1.000000	1398	0.000000
1399	1.000000	1399	0.000000
1400	0.000000	1400	0.190000
1401	0.000000	1401	0.510000
1402	0.000000	1402	0.444000
1403	-0.000000	1403	0.000000
1404	1.000000	1404	0.000000
1405	0.400000	1405	0.000000
1406	-0.000000	1406	0.000000
1407	0.600000	1407	0.000000
1408	-0.000000	1408	0.000000
1409	1.000000	1409	0.000000
1410	0.000000	1410	0.120000
1411	-0.000000	1411	0.000000
1412	0.400000	1412	0.000000
1413	0.600000	1413	0.000000
1414	0.800000	1414	0.000000
1415	0.200000	1415	0.000000
1416	-0.000000	1416	0.000000
1417	0.000000	1417	0.762000
1418	1.000000	1418	0.000000
1419	1.000000	1419	0.000000
1420	0.000000	1420	0.026000
1421	0.000000	1421	-0.000000
1422	0.800000	1422	0.000000
1423	0.200000	1423	0.000000
1424	0.000000	1424	1.276000
1425	-0.000000	1425	0.000000
1426	1.000000	1426	0.000000
1427	1.000000	1427	0.000000
1428	0.000000	1428	0.226000
1429	-0.000000	1429	0.000000
1430	-0.000000	1430	0.000000
1431	1.000000	1431	0.000000
1432	-0.000000	1432	0.000000
1433	0.600000	1433	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
1434	0.400000	1434	0.000000
1435	-0.000000	1435	0.000000
1436	0.000000	1436	1.018000
1437	1.000000	1437	0.000000
1438	-0.000000	1438	0.000000
1439	1.000000	1439	0.000000
1440	0.000000	1440	0.570000
1441	-0.000000	1441	0.000000
1442	1.000000	1442	0.000000
1443	1.000000	1443	0.000000
1444	0.000000	1444	0.640000
1445	0.000000	1445	0.016000
1446	0.400000	1446	0.000000
1447	0.000000	1447	4.220000
1448	0.600000	1448	0.000000
1449	0.000000	1449	0.408000
1450	1.000000	1450	0.000000
1451	1.000000	1451	0.000000
1452	-0.000000	1452	0.000000
1453	0.000000	1453	0.234000
1454	1.000000	1454	0.000000
1455	0.000000	1455	0.442000
1456	-0.000000	1456	0.000000
1457	0.000000	1457	0.958000
1458	1.000000	1458	0.000000
1459	-0.000000	1459	0.000000
1460	1.000000	1460	0.000000
1461	0.000000	1461	0.412000
1462	1.000000	1462	0.000000
1463	-0.000000	1463	0.000000
1464	0.800000	1464	0.000000
1465	0.200000	1465	0.000000
1466	0.000000	1466	0.462000
1467	0.200000	1467	0.000000
1468	0.800000	1468	0.000000
1469	0.000000	1469	0.070000
1470	0.000000	1470	0.180000
1471	1.000000	1471	0.000000
1472	0.000000	1472	0.130000
1473	-0.000000	1473	0.000000
1474	1.000000	1474	0.000000
1475	-0.000000	1475	0.000000
1476	-0.000000	1476	0.000000
1477	1.000000	1477	0.000000
1478	-0.000000	1478	0.000000
1479	1.000000	1479	0.000000
1480	0.600000	1480	0.000000
1481	0.400000	1481	0.000000
1482	0.800000	1482	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
1483	0.200000	1483	0.000000
1484	-0.000000	1484	0.000000
1485	1.000000	1485	0.000000
1486	1.000000	1486	0.000000
1487	0.000000	1487	0.200000
1488	1.000000	1488	0.000000
1489	0.000000	1489	0.780000
1490	0.000000	1490	0.040000
1491	1.000000	1491	0.000000
1492	0.000000	1492	0.722000
1493	1.000000	1493	0.000000
1494	-0.000000	1494	0.000000
1495	1.000000	1495	0.000000
1496	-0.000000	1496	0.000000
1497	0.400000	1497	0.000000
1498	0.000000	1498	2.872000
1499	0.600000	1499	0.000000
1500	1.000000	1500	0.000000
1501	-0.000000	1501	0.000000
1502	1.000000	1502	0.000000
1503	0.000000	1503	0.070000
1504	1.000000	1504	0.000000
1505	0.000000	1505	0.356000
1506	-0.000000	1506	0.000000
1507	1.000000	1507	0.000000
1508	1.000000	1508	0.000000
1509	0.000000	1509	0.066000
1510	0.000000	1510	0.160000
1511	1.000000	1511	0.000000
1512	-0.000000	1512	0.000000
1513	1.000000	1513	0.000000
1514	0.000000	1514	0.522000
1515	0.000000	1515	0.222000
1516	1.000000	1516	0.000000
1517	1.000000	1517	0.000000
1518	-0.000000	1518	0.000000
1519	-0.000000	1519	0.000000
1520	1.000000	1520	0.000000
1521	0.000000	1521	0.994000
1522	-0.000000	1522	0.000000
1523	1.000000	1523	0.000000
1524	1.000000	1524	0.000000
1525	0.000000	1525	0.824000
1526	0.000000	1526	1.256000
1527	1.000000	1527	0.000000
1528	-0.000000	1528	0.000000
1529	0.000000	1529	1.238000
1530	0.000000	1530	1.086000
1531	1.000000	1531	0.000000

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Coordenada x	Valor x	Coordenada z	Valor z
1532	0.000000	1532	0.390000
1533	1.000000	1533	0.000000
1534	0.000000	1534	0.140000
1535	-0.000000	1535	0.000000
1536	1.000000	1536	0.000000
1537	1.000000	1537	0.000000
1538	0.000000	1538	0.260000
1539	-0.000000	1539	0.000000
1540	0.000000	1540	1.140000
1541	1.000000	1541	0.000000
1542	1.000000	1542	0.000000
1543	-0.000000	1543	0.000000
1544	0.000000	1544	0.324000
1545	1.000000	1545	0.000000
1546	-0.000000	1546	0.000000
1547	0.000000	1547	0.164000
1548	-0.000000	1548	0.000000
1549	1.000000	1549	0.000000
1550	-0.000000	1550	0.000000
1551	1.000000	1551	0.000000
1552	0.000000	1552	0.520000
1553	0.000000	1553	0.824000
1554	-0.000000	1554	0.000000
1555	1.000000	1555	0.000000
1556	1.000000	1556	0.000000
1557	0.000000	1557	0.212000
1558	0.000000	1558	0.794000
1559	0.000000	1559	0.682000
1560	1.000000	1560	0.000000
1561	-0.000000	1561	0.000000
1562	0.000000	1562	4.194000
1563	1.000000	1563	0.000000
1564	0.000000	1564	0.434000
1565	1.000000	1565	0.000000
1566	0.000000	1566	0.402000
1567	0.000000	1567	0.610000
1568	1.000000	1568	0.000000
1569	0.000000	1569	0.006000
1570	1.000000	1570	0.000000
1571	0.000000	1571	0.502000
1572	0.000000	1572	0.572000
1573	0.800000	1573	0.000000
1574	0.200000	1574	0.000000
1575	0.000000	1575	0.666000
1576	1.000000	1576	0.000000
1577	0.000000	1577	0.210000
1578	-0.000000	1578	0.000000
1579	1.000000	1579	0.000000
1580	0.000000	1580	0.160000

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Coordenada x	Valor x	Coordenada z	Valor z
1581	0.000000	1581	0.726000
1582	1.000000	1582	0.000000
1583	-0.000000	1583	0.000000
1584	0.000000	1584	5.712000
1585	1.000000	1585	0.000000
1586	-0.000000	1586	0.000000
1587	-0.000000	1587	0.000000
1588	0.000000	1588	0.810000
1589	0.000000	1589	1.442000
1590	-0.000000	1590	0.000000
1591	0.000000	1591	0.664000
1592	0.000000	1592	0.332000
1593	-0.000000	1593	0.000000
1594	0.000000	1594	0.944000
1595	0.000000	1595	1.756000
1596	0.000000	1596	3.634000
1597	0.000000	1597	6.030000
1598	0.000000	1598	7.064000
1599	0.000000	1599	3.634000
1600	0.000000	1600	7.096000
1601	-0.000000	1601	0.000000
1602	0.000000	1602	3.902000
1603	0.000000	1603	3.288000
1604	0.000000	1604	3.634000
1605	0.000000	1605	4.508000
1606	0.000000	1606	4.778000
1607	0.000000	1607	3.634000
1608	0.000000	1608	7.072000
1609	0.000000	1609	6.342000
1610	0.000000	1610	3.634000
1611	0.000000	1611	6.268000
1612	0.000000	1612	4.988000
1613	-0.000000	1613	0.000000
1614	0.000000	1614	1.834000
1615	0.000000	1615	2.458000
1616	0.000000	1616	3.634000
1617	0.000000	1617	6.274000
1618	0.000000	1618	6.340000
1619	0.000000	1619	1.770000
1620	0.000000	1620	1.800000
1621	0.000000	1621	1.820000
1622	0.000000	1622	3.634000
1623	0.000000	1623	5.094000
1624	0.000000	1624	6.564000
1625	0.000000	1625	3.634000
1626	0.000000	1626	5.554000
1627	0.000000	1627	6.044000
1628	0.000000	1628	3.634000
1629	0.000000	1629	5.968000

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Coordenada x	Valor x	Coordenada z	Valor z
1630	0.000000	1630	7.002000
1631	0.000000	1631	3.634000
1632	0.000000	1632	5.278000
1633	0.000000	1633	5.692000
1634	-0.000000	1634	0.000000
1635	0.000000	1635	1.326000
1636	0.000000	1636	2.140000
1637	0.000000	1637	3.448000
1638	0.000000	1638	5.900000
1639	-0.000000	1639	0.000000
1640	9.800000	1640	0.000000
1641	0.000000	1641	0.936000
1642	0.000000	1642	0.202000
1643	-0.000000	1643	0.000000
1644	0.000000	1644	0.594000
1645	0.000000	1645	1.210000
1646	0.000000	1646	3.634000
1647	0.000000	1647	4.958000
1648	0.000000	1648	5.712000
1649	0.000000	1649	3.634000
1650	0.000000	1650	5.132000
1651	0.000000	1651	5.046000
1652	0.000000	1652	3.634000
1653	0.000000	1653	6.192000
1654	0.000000	1654	8.538000
1655	0.000000	1655	3.634000
1656	0.000000	1656	4.194000
1657	0.000000	1657	5.268000
1658	-0.000000	1658	0.000000
1659	0.000000	1659	2.282000
1660	0.000000	1660	2.572000
1661	-0.000000	1661	0.000000
1662	0.000000	1662	0.410000
1663	0.000000	1663	2.686000
1664	-0.000000	1664	0.000000
1665	0.000000	1665	2.788000
1666	0.000000	1666	3.240000
1667	0.000000	1667	3.634000
1668	0.000000	1668	5.324000
1669	0.000000	1669	6.628000
1670	0.000000	1670	0.276000
1671	-0.000000	1671	0.000000
1672	0.000000	1672	0.864000
1673	0.000000	1673	3.634000
1674	0.000000	1674	5.972000
1675	0.000000	1675	6.288000
1676	0.000000	1676	2.486000
1677	0.000000	1677	3.796000
1678	0.000000	1678	3.820000

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Coordenada x	Valor x	Coordenada z	Valor z
1679	0.000000	1679	3.634000
1680	0.000000	1680	4.640000
1681	0.000000	1681	5.804000
1682	0.000000	1682	3.634000
1683	0.000000	1683	5.094000
1684	0.000000	1684	5.568000
1685	0.000000	1685	7.758000
1686	0.000000	1686	8.598000
1687	0.000000	1687	3.634000
1688	0.000000	1688	2.560000
1689	0.000000	1689	5.324000
1690	-0.000000	1690	0.000000
1691	0.000000	1691	0.680000
1692	0.000000	1692	1.650000
1693	0.000000	1693	3.634000
1694	0.000000	1694	5.364000
1695	0.000000	1695	6.108000
1696	0.000000	1696	3.634000
1697	0.000000	1697	5.974000
1698	0.000000	1698	6.664000
1699	0.000000	1699	3.634000
1700	0.000000	1700	5.808000
1701	0.000000	1701	6.662000
1702	0.000000	1702	3.634000
1703	0.000000	1703	6.742000
1704	-0.000000	1704	0.000000
1705	0.000000	1705	0.830000
1706	0.000000	1706	0.990000
1707	-0.000000	1707	0.000000
1708	0.000000	1708	0.474000
1709	0.000000	1709	0.978000
1710	-0.000000	1710	0.000000
1711	0.000000	1711	2.102000
1712	0.000000	1712	2.412000
1713	-0.000000	1713	0.000000
1714	0.000000	1714	1.326000
1715	0.000000	1715	2.200000
1716	0.000000	1716	3.634000
1717	0.000000	1717	5.240000
1718	0.000000	1718	6.290000
1719	0.000000	1719	3.634000
1720	0.000000	1720	4.638000
1721	0.000000	1721	5.626000
1722	0.000000	1722	3.634000
1723	0.000000	1723	6.374000
1724	0.000000	1724	7.998000
1725	0.000000	1725	3.634000
1726	0.000000	1726	4.268000
1727	0.000000	1727	4.570000

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Coordenada x	Valor x	Coordenada z	Valor z
1728	0.000000	1728	3.634000
1729	0.000000	1729	4.330000
1730	0.000000	1730	5.274000
1731	0.000000	1731	3.634000
1732	0.000000	1732	3.602000
1733	0.000000	1733	4.122000
1734	0.000000	1734	3.634000
1735	0.000000	1735	5.024000
1736	0.000000	1736	4.134000
1737	0.000000	1737	3.634000
1738	0.000000	1738	5.816000
1739	0.000000	1739	6.920000
1740	0.000000	1740	3.634000
1741	0.000000	1741	4.308000
1742	0.000000	1742	5.412000
1743	0.000000	1743	3.634000
1744	0.000000	1744	4.354000
1745	0.000000	1745	5.248000
1746	0.000000	1746	3.634000
1747	0.000000	1747	6.298000
1748	0.000000	1748	7.878000
1749	-0.000000	1749	0.000000
1750	0.000000	1750	1.656000
1751	-0.000000	1751	0.000000
1752	0.000000	1752	0.346000
1753	0.000000	1753	0.114000
1754	0.000000	1754	3.634000
1755	0.000000	1755	7.274000
1756	0.000000	1756	8.278000
1757	0.000000	1757	3.018000
1758	0.000000	1758	4.356000
1759	0.000000	1759	4.278000
1760	7.400000	1760	0.000000
1761	0.000000	1761	0.364000
1762	4.000000	1762	0.000000
1763	-0.000000	1763	0.000000
1764	0.000000	1764	1.576000
1765	0.000000	1765	2.468000
1766	0.000000	1766	3.634000
1767	0.000000	1767	6.418000
1768	0.000000	1768	6.484000
1769	-0.000000	1769	0.000000
1770	0.000000	1770	2.174000
1771	0.000000	1771	1.856000
1772	0.000000	1772	3.634000
1773	0.000000	1773	4.838000
1774	-0.000000	1774	0.000000
1775	0.000000	1775	0.900000
1776	0.000000	1776	1.020000

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Coordenada x	Valor x	Coordenada z	Valor z
1777	-0.000000	1777	0.000000
1778	0.000000	1778	0.290000
1779	0.000000	1779	1.434000
1780	0.000000	1780	3.634000
1781	0.000000	1781	5.694000
1782	0.000000	1782	6.044000
1783	-0.000000	1783	0.000000
1784	0.000000	1784	1.082000
1785	0.000000	1785	1.360000
1786	-0.000000	1786	0.000000
1787	0.000000	1787	0.424000
1788	0.000000	1788	1.368000
1789	0.000000	1789	3.634000
1790	0.000000	1790	3.430000
1791	0.000000	1791	3.802000
1792	-0.000000	1792	0.000000
1793	0.000000	1793	1.492000
1794	0.000000	1794	0.830000
1795	-0.000000	1795	0.000000
1796	0.000000	1796	0.796000
1797	0.000000	1797	0.996000
1798	-0.000000	1798	0.000000
1799	0.000000	1799	0.980000
1800	0.000000	1800	1.398000
1801	0.000000	1801	3.634000
1802	0.000000	1802	4.494000
1803	0.000000	1803	3.634000
1804	0.000000	1804	4.464000
1805	0.000000	1805	4.258000
1806	-0.000000	1806	0.000000
1807	0.000000	1807	1.266000
1808	0.000000	1808	1.728000
1809	-0.000000	1809	0.000000
1810	0.000000	1810	1.606000
1811	0.000000	1811	0.554000
1812	-0.000000	1812	0.000000
1813	0.000000	1813	1.018000
1814	-0.000000	1814	0.000000
1815	0.000000	1815	0.674000
1816	0.000000	1816	1.034000
1817	-0.000000	1817	0.000000
1818	0.000000	1818	5.018000

### 3 Variáveis Duais (Multiplicadores de Lagrange)

Tabela 2: Variáveis duais do problema DEGEN3

Coordenada y	Valor y
1	-3.634000
2	-7.758000
3	-9.532000
4	-8.910000
5	2.070000
6	-3.836000
7	-5.756000
8	1.600000
9	-1.296000
10	0.684000
11	-1.908000
12	0.160000
13	-2.510000
14	-0.266000
15	-1.896000
16	4.700000
17	-0.484000
18	-1.140000
19	0.678000
20	0.574000
21	-2.490000
22	-1.506000
23	1.074000
24	-1.156000
25	-2.984000
26	1.334000
27	-3.970000
28	2.444000
29	4.550000
30	-0.558000
31	0.016000
32	-3.646000
33	-0.446000
34	1.814000
35	-0.076000
36	-5.226000
37	-0.324000
38	-2.006000
39	0.244000
40	-0.990000
41	-6.230000
42	-1.024000
43	-6.146000
44	-2.366000
45	-1.330000
46	0.256000
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Coordenada y	Valor y
47	2.552000
48	0.954000
49	-4.240000
50	1.150000
51	-1.744000
52	1.766000
53	-4.020000
54	1.996000
55	-5.292000
56	-1.308000
57	-2.450000
58	5.338000
59	-0.474000
60	-3.826000
61	2.060000
62	0.204000
63	-1.044000
64	-0.246000
65	-9.118000
66	-0.476000
67	5.652000
68	-6.840000
69	1.504000
70	-0.152000
71	-0.216000
72	0.192000
73	0.406000
74	-2.218000
75	2.500000
76	-0.262000
77	-2.474000
78	0.998000
79	-9.218000
80	-0.666000
81	-2.124000
82	4.482000
83	0.610000
84	-3.582000
85	-2.794000
86	-1.464000
87	-1.966000
88	-1.346000
89	-4.468000
90	-8.333000
91	-2.030000
92	0.770000
93	-1.066000
94	0.674000
95	-2.086000

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Coordenada y	Valor y
96	-1.698000
97	4.238000
98	5.864000
99	0.004000
100	1.026000
101	-2.292000
102	3.966000
103	-1.452000
104	-4.292000
105	2.680000
106	1.912000
107	0.496000
108	-1.090000
109	1.684000
110	-3.070000
111	-2.482000
112	0.654000
113	-3.172000
114	-2.212000
115	1.154000
116	0.840000
117	0.640000
118	-6.360000
119	-4.228000
120	-0.446000
121	-1.492000
122	-2.060000
123	2.198000
124	-5.494000
125	-4.774000
126	-3.634000
127	2.672000
128	-0.670000
129	-0.692000
130	-2.266000
131	-0.430000
132	2.468000
133	0.604000
134	-3.430000
135	1.530000
136	-1.748000
137	-2.104000
138	-5.888000
139	-2.762000
140	-4.144000
141	-4.112000
142	-2.230000
143	-4.418000
144	-0.170000
Continua na próxima página	

Coordenada y	Valor y
145	0.812000
146	-0.376000
147	8.098000
148	-1.990000
149	3.098000
150	3.490000
151	-1.112000
152	4.732000
153	0.988000
154	-1.446000
155	2.716000
156	1.294000
157	-0.218000
158	4.882000
159	-1.678000
160	-0.630000
161	-2.294000
162	-0.396000
163	-2.820000
164	-1.274000
165	1.524000
166	1.802000
167	0.034000
168	-3.760000
169	-0.194000
170	1.100000
171	-2.472000
172	2.370000
173	-3.012000
174	-1.540000
175	-6.026000
176	-1.418000
177	-2.366000
178	-2.748000
179	0.204000
180	-1.822000
181	-2.762000
182	-0.586000
183	3.538000
184	-2.578000
185	5.218000
186	1.080000
187	-2.216000
188	-2.226000
189	-2.244000
190	-0.242000
191	2.106000
192	-1.856000
193	1.064000
Continua na próxima página	

Coordenada y	Valor y
194	-0.208000
195	-8.774000
196	-0.390000
197	1.788000
198	-0.156000
199	2.114000
200	1.252000
201	-1.390000
202	-3.166000
203	-3.396000
204	-1.960000
205	-4.650000
206	-3.500000
207	-3.626000
208	-2.658000
209	-2.390000
210	-5.216000
211	-2.642000
212	0.694000
213	0.400000
214	-2.650000
215	-0.410000
216	-2.660000
217	1.426000
218	-2.492000
219	-3.016000
220	-1.160000
221	1.480000
222	-1.694000
223	1.124000
224	-0.212000
225	-2.230000
226	-0.570000
227	-1.892000
228	-3.360000
229	-4.408000
230	-4.034000
231	0.228000
232	2.816000
233	-2.930000
234	3.652000
235	-0.674000
236	0.236000
237	-0.328000
238	0.670000
239	0.298000
240	0.510000
241	-0.818000
242	0.010000

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Coordenada y	Valor y
243	1.206000
244	-0.982000
245	-2.560000
246	-0.538000
247	-2.834000
248	0.750000
249	-0.226000
250	-1.598000
251	1.952000
252	-0.215000
253	-6.894000
254	-3.200000
255	-0.236000
256	-0.200000
257	1.181000
258	0.194000
259	-0.310000
260	0.053000
261	0.732000
262	-3.076000
263	1.261000
264	-1.960000
265	-0.592000
266	-6.448000
267	-1.010000
268	1.482000
269	-0.850000
270	1.600000
271	-1.746000
272	-0.892000
273	0.466000
274	1.124000
275	1.820000
276	2.270000
277	2.420000
278	-5.232000
279	-1.452000
280	-1.646000
281	-3.552000
282	-1.928000
283	0.155000
284	1.310000
285	0.320000
286	0.377000
287	-3.298000
288	-0.944000
289	-4.070000
290	-0.194000
291	-1.438000
Continua na próxima página	

Coordenada y	Valor y
292	-1.607000
293	1.732000
294	-1.248000
295	-0.990000
296	0.165000
297	-2.386000
298	2.118000
299	2.408000
300	1.925000
301	0.522000
302	2.370000
303	-0.250000
304	0.328000
305	-3.512000
306	-1.388000
307	1.382000
308	-0.108000
309	1.730000
310	-1.832000
311	-2.576000
312	-0.752000
313	0.756000
314	-1.062000
315	-0.558000
316	-0.686000
317	1.088000
318	-2.024000
319	2.120000
320	-0.680000
321	1.878000
322	-0.520000
323	-0.226000
324	-3.808000
325	2.152000
326	-0.690000
327	-2.984000
328	1.150000
329	2.298000
330	-1.378000
331	0.502000
332	-0.686000
333	-2.984000
334	0.986000
335	0.140000
336	-0.569000
337	1.722000
338	0.155000
339	1.446000
340	0.018000
Continua na próxima página	

Coordenada y	Valor y
341	0.668000
342	-1.796000
343	-2.302000
344	2.794000
345	-0.310000
346	0.484000
347	-0.930000
348	-1.268000
349	4.172000
350	-2.794000
351	3.482000
352	1.070000
353	1.784000
354	1.900000
355	0.120000
356	0.436000
357	1.210000
358	-3.738000
359	0.132000
360	4.738000
361	-4.506000
362	0.994000
363	-1.110000
364	0.440000
365	0.554000
366	0.360000
367	-0.924000
368	2.738000
369	-1.424000
370	0.624000
371	-3.520000
372	0.844000
373	-1.380000
374	3.694000
375	-0.106000
376	-1.464000
377	3.928000
378	-3.196000
379	1.898000
380	1.434000
381	0.824000
382	-2.856000
383	0.202000
384	1.232000
385	0.892000
386	1.332000
387	-1.108000
388	0.822000
389	0.752000
Continua na próxima página	

Coordenada y	Valor y
390	0.442000
391	0.798000
392	5.858000
393	-0.778000
394	1.432000
395	-0.708000
396	0.808000
397	1.538000
398	1.356000
399	1.628000
400	0.658000
401	1.054000
402	-0.808000
403	-1.108000
404	2.710000
405	-1.586000
406	0.412000
407	-0.928000
408	0.266000
409	0.152000
410	-1.858000
411	0.352000
412	0.406000
413	-0.022000
414	-0.090000
415	4.036000
416	0.902000
417	-1.538000
418	-0.380000
419	-2.338000
420	2.800000
421	-0.060000
422	0.208000
423	-2.580000
424	-0.182000
425	-1.502000
426	0.428000
427	-1.388000
428	-1.300000
429	1.022000
430	-0.220000
431	-5.822000
432	-0.308000
433	0.306000
434	3.862000
435	-4.138000
436	4.532000
437	-1.090000
438	-0.544000
Continua na próxima página	

Coordenada y	Valor y
439	2.672000
440	-4.582000
441	-0.658000
442	2.442000
443	-1.948000
444	-3.332000
445	3.856000
446	0.082000
447	0.122000
448	-0.192000
449	-2.166000
450	1.592000
451	-0.584000
452	-0.108000
453	3.312000
454	-1.754000
455	-1.348000
456	-0.008000
457	-0.338000
458	2.216000
459	-3.872000
460	-0.826000
461	0.642000
462	-0.880000
463	1.474000
464	4.914000
465	2.198000
466	-3.436000
467	2.970000
468	2.704000
469	-0.322000
470	3.704000
471	7.268000
472	-1.222000
473	-1.724000
474	1.784000
475	1.398000
476	0.144000
477	2.704000
478	-3.402000
479	1.652000
480	-2.202000
481	-0.932000
482	6.124000
483	-1.754000
484	1.424000
485	0.140000
486	-1.490000
487	-1.238000
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Coordenada y	Valor y
488	4.084000
489	-0.238000
490	0.710000
491	0.402000
492	1.582000
493	1.364000
494	1.145000
495	-0.310000
496	1.878000
497	-0.766000
498	-3.218000
499	-1.132000
500	-1.100000
501	-2.718000
502	-4.802000
503	0.820000
504	3.582000
505	-0.256000
506	0.634000
507	-2.770000
508	1.018000
509	1.868000
510	2.222000
511	-0.990000
512	-2.590000
513	-1.158000
514	2.122000
515	2.036000
516	7.848000
517	2.622000
518	3.966000
519	3.466000
520	5.048000
521	-1.742000
522	2.822000
523	4.296000
524	2.752000
525	0.826000
526	3.670000
527	-0.102000
528	-2.034000
529	2.126000
530	-2.046000
531	-3.434000
532	0.396000
533	3.552000
534	1.614000
535	0.392000
536	-0.096000

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Coordenada y	Valor y
537	-2.968000
538	-2.705000
539	0.140000
540	0.288000
541	-5.520000
542	-0.132000
543	-1.834000
544	0.032000
545	-0.498000
546	1.138000
547	0.318000
548	1.612000
549	-0.262000
550	-2.428000
551	1.308000
552	-2.814000
553	0.898000
554	0.074000
555	-1.428000
556	2.314000
557	0.530000
558	-0.910000
559	-2.040000
560	-2.086000
561	-7.142000
562	-0.052000
563	0.442000
564	-0.892000
565	-0.030000
566	0.628000
567	0.642000
568	0.336000
569	0.618000
570	-0.220000
571	0.186000
572	-1.034000
573	0.236000
574	0.564000
575	0.926000
576	-0.142000
577	-0.558000
578	0.484000
579	0.116000
580	0.444000
581	-0.492000
582	0.090000
583	0.980000
584	1.054000
585	0.252000

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Coordenada y	Valor y
586	0.594000
587	-1.552000
588	0.420000
589	-0.600000
590	0.422000
591	0.226000
592	0.614000
593	0.116000
594	0.464000
595	-0.828000
596	0.354000
597	0.174000
598	-0.210000
599	-0.000000
600	0.634000
601	0.148000
602	0.928000
603	-1.824000
604	0.394000
605	-1.022000
606	-0.170000
607	0.232000
608	0.982000
609	-0.528000
610	0.484000
611	-0.832000
612	-0.020000
613	1.234000
614	2.196000
615	-0.336000
616	0.210000
617	0.822000
618	0.874000
619	-0.124000
620	0.764000
621	-0.692000
622	-0.284000
623	0.162000
624	0.724000
625	-1.672000
626	0.474000
627	-0.178000
628	0.964000
629	0.050000
630	-1.202000
631	-0.760000
632	0.632000
633	2.024000
634	-1.968000
Continua na próxima página	

Coordenada y	Valor y
635	0.184000
636	-0.112000
637	0.210000
638	-0.114000
639	0.564000
640	-3.094000
641	-0.128000
642	-0.354000
643	0.010000
644	0.136000
645	0.494000
646	1.012000
647	0.694000
648	0.622000
649	0.524000
650	-0.112000
651	0.660000
652	0.530000
653	0.698000
654	-0.014000
655	0.784000
656	-1.832000
657	0.126000
658	-0.284000
659	0.574000
660	-1.814000
661	-0.050000
662	-1.702000
663	0.170000
664	0.418000
665	0.978000
666	-0.744000
667	-0.090000
668	-0.164000
669	0.564000
670	0.846000
671	1.104000
672	-1.674000
673	-0.868000
674	0.110000
675	0.612000
676	0.734000
677	-0.712000
678	0.020000
679	-0.208000
680	-0.000000
681	0.674000
682	0.592000
683	0.242000

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Coordenada y	Valor y
684	0.514000
685	-0.390000
686	0.532000
687	-0.958000
688	-7.414000
689	0.188000
690	0.100000
691	0.476000
692	1.034000
693	-0.642000
694	-0.492000
695	0.138000
696	0.600000
697	0.436000
698	0.924000
699	-1.574000
700	-0.270000
701	-0.322000
702	0.040000
703	0.306000
704	0.562000
705	0.298000
706	0.750000
707	-0.234000
708	0.214000
709	-2.168000
710	-0.496000
711	0.528000
712	0.774000
713	-1.672000
714	3.510000
715	-0.288000
716	0.978000
717	-4.252000
718	-0.780000
719	1.186000
720	4.308000
721	-0.036000
722	-3.598000
723	-0.000000
724	-0.000000
725	-0.534000
726	-4.568000
727	-0.940000
728	-0.906000
729	-0.000000
730	-4.790000
731	-1.932000
732	-1.368000
Continua na próxima página	

Coordenada y	Valor y
733	-3.634000
734	-7.094000
735	-9.200000
736	-3.634000
737	-0.000000
738	-5.408000
739	-1.406000
740	-5.578000
741	-2.198000
742	-0.000000
743	-1.728000
744	-2.468000
745	-0.000000
746	-2.436000
747	-3.634000
748	-3.856000
749	-6.244000
750	-0.000000
751	-0.000000
752	-0.000000
753	-0.890000
754	-1.192000
755	-1.168000
756	-1.334000
757	-1.588000
758	-1.832000
759	-0.000000
760	-0.000000
761	-0.686000
762	-0.000000
763	-1.784000
764	-1.406000
765	-0.000000
766	-0.000000
767	-1.490000
768	-2.794000
769	-1.750000
770	-3.634000
771	-0.000000
772	-5.300000
773	-0.624000
774	-5.930000
775	-1.144000
776	-0.000000
777	-0.000000
778	-0.000000
779	-1.484000
780	-0.334000
781	-0.800000
Continua na próxima página	

Coordenada y	Valor y
782	-2.058000
783	-0.000000
784	-0.000000
785	-0.576000
786	-0.160000
787	-0.000000
788	-0.000000
789	-0.396000
790	-0.000000
791	-0.000000
792	-0.068000
793	-0.000000
794	-0.558000
795	-0.000000
796	-0.106000
797	-0.530000
798	-0.656000
799	-0.000000
800	-0.546000
801	-1.108000
802	-0.122000
803	-0.000000
804	-0.204000
805	-0.658000
806	-0.000000
807	-0.452000
808	-1.682000
809	-0.000000
810	-1.104000
811	-0.442000
812	-0.714000
813	-0.000000
814	-0.606000
815	-0.616000
816	-0.734000
817	-0.444000
818	-0.014000
819	-0.594000
820	-0.622000
821	-0.000000
822	-1.058000
823	-0.764000
824	-0.000000
825	-2.664000
826	-2.968000
827	-0.000000
828	-2.204000
829	-3.488000
830	-0.000000
Continua na próxima página	

Coordenada y	Valor y
831	-1.790000
832	-2.530000
833	-0.000000
834	-0.000000
835	-2.480000
836	-2.530000
837	-1.310000
838	-3.634000
839	-6.432000
840	-7.392000
841	-0.000000
842	-0.000000
843	-0.000000
844	-0.000000
845	-0.186000
846	-0.304000
847	-0.920000
848	-0.634000
849	-0.000000
850	-5.556000
851	-0.358000
852	-1.540000
853	-0.098000
854	-1.106000
855	-0.874000
856	-0.000000
857	-0.000000
858	-0.000000
859	-0.000000
860	-0.000000
861	-2.802000
862	-0.832000
863	-0.000000
864	-0.000000
865	-0.000000
866	-0.000000
867	-0.000000
868	-0.000000
869	-0.000000
870	-0.000000
871	-0.072000
872	-0.640000
873	-0.000000
874	-3.610000
875	-1.184000
876	-0.334000
877	-0.606000
878	-0.376000
879	-0.620000

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Coordenada y	Valor y
880	-1.090000
881	-0.188000
882	-0.000000
883	-0.392000
884	-3.674000
885	-0.000000
886	-1.080000
887	-0.510000
888	-0.000000
889	-0.384000
890	-0.386000
891	-0.390000
892	-0.616000
893	-0.000000
894	-0.000000
895	-0.612000
896	-0.000000
897	-3.022000
898	-0.000000
899	-0.000000
900	-0.168000
901	-0.000000
902	-1.928000
903	-3.616000
904	-0.566000
905	-0.886000
906	-0.146000
907	-1.908000
908	-0.894000
909	-3.536000
910	-1.006000
911	-0.832000
912	-0.000000
913	-2.800000
914	-3.820000
915	-0.000000
916	-2.626000
917	-4.486000
918	-0.000000
919	-1.566000
920	-0.994000
921	-0.000000
922	-0.000000
923	-0.000000
924	-0.804000
925	-1.480000
926	-1.280000
927	-0.984000
928	-1.790000
Continua na próxima página	

Coordenada y	Valor y
929	-1.490000
930	-0.736000
931	-2.561000
932	-0.337000
933	-0.000000
934	-0.000000
935	-3.493000
936	-0.000000
937	-1.983000
938	-0.400000
939	-3.835000
940	-1.755000
941	-0.970000
942	-3.634000
943	-0.000000
944	-5.554000
945	-1.794000
946	-6.174000
947	-0.672000
948	-1.650000
949	-1.984000
950	-4.970000
951	-0.000000
952	-6.292000
953	-0.000000
954	-2.434000
955	-2.904000
956	-3.358000
957	-0.000000
958	-5.468000
959	-2.290000
960	-5.898000
961	-2.770000
962	-0.000000
963	-1.786000
964	-3.244000
965	-0.000000
966	-1.148000
967	-0.000000
968	-0.000000
969	-2.738000
970	-1.224000
971	-2.908000
972	-0.000000
973	-1.290000
974	-1.514000
975	-0.000000
976	-3.118000
977	-3.728000
Continua na próxima página	

Coordenada y	Valor y
978	-0.000000
979	-0.000000
980	-2.664000
981	-1.510000
982	-2.454000
983	-0.000000
984	-0.934000
985	-0.000000
986	-0.000000
987	-5.198000
988	-1.330000
989	-2.878000
990	-0.000000
991	-3.634000
992	-0.000000
993	-0.770000
994	-4.462000
995	-1.846000
996	-1.434000
997	-0.900000
998	-4.436000
999	-1.112000
1000	-0.000000
1001	-2.394000
1002	-3.424000
1003	-0.000000
1004	-1.784000
1005	-2.868000
1006	-0.000000
1007	-1.950000
1008	-2.870000
1009	-0.000000
1010	-2.790000
1011	-0.202000
1012	-0.292000
1013	-0.000000
1014	-1.590000
1015	-0.000000
1016	-0.000000
1017	-0.108000
1018	-0.266000
1019	-0.000000
1020	-0.000000
1021	-0.300000
1022	-0.256000
1023	-0.000000
1024	-0.504000
1025	-0.116000
1026	-0.000000

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Coordenada y	Valor y
1027	-0.000000
1028	-0.000000
1029	-0.000000
1030	-0.000000
1031	-0.000000
1032	-0.000000
1033	-0.262000
1034	-0.910000
1035	-0.000000
1036	-0.486000
1037	-1.178000
1038	-0.060000
1039	-0.444000
1040	-0.092000
1041	-1.616000
1042	-0.000000
1043	-0.614000
1044	-0.000000
1045	-0.000000
1046	-0.000000
1047	-1.266000
1048	-0.000000
1049	-0.000000
1050	-0.000000
1051	-0.000000
1052	-0.000000
1053	-0.152000
1054	-1.120000
1055	-0.132000
1056	-1.228000
1057	-0.114000
1058	-0.270000
1059	-0.766000
1060	-0.000000
1061	-0.484000
1062	-0.460000
1063	-0.892000
1064	-0.000000
1065	-0.794000
1066	-0.000000
1067	-0.010000
1068	-0.132000
1069	-0.000000
1070	-1.758000
1071	-0.000000
1072	-0.000000
1073	-0.130000
1074	-0.100000
1075	-0.000000
Continua na próxima página	

Coordenada y	Valor y
1076	-3.634000
1077	-0.000000
1078	-5.762000
1079	-1.522000
1080	-5.802000
1081	-2.752000
1082	-0.896000
1083	-0.000000
1084	-0.100000
1085	-0.324000
1086	-0.000000
1087	-0.000000
1088	-0.000000
1089	-0.000000
1090	-0.568000
1091	-1.246000
1092	-0.500000
1093	-0.000000
1094	-0.000000
1095	-0.160000
1096	-0.838000
1097	-0.000000
1098	-0.050000
1099	-0.902000
1100	-0.364000
1101	-0.000000
1102	-0.440000
1103	-2.518000
1104	-0.000000
1105	-0.384000
1106	-0.000000
1107	-0.000000
1108	-0.704000
1109	-0.000000
1110	-0.584000
1111	-0.204000
1112	-0.928000
1113	-1.068000
1114	-0.080000
1115	-0.000000
1116	-2.404000
1117	-0.864000
1118	-0.284000
1119	-0.000000
1120	-3.634000
1121	-0.000000
1122	-0.000000
1123	-4.858000
1124	-0.600000

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Coordenada y	Valor y
1125	-0.974000
1126	-4.998000
1127	-0.390000
1128	-1.944000
1129	-0.000000
1130	-0.000000
1131	-1.462000
1132	-1.056000
1133	-0.082000
1134	-3.160000
1135	-0.000000
1136	-0.000000
1137	-0.000000
1138	-1.790000
1139	-0.490000
1140	-0.840000
1141	-1.880000
1142	-0.970000
1143	-1.056000
1144	-0.000000
1145	-0.000000
1146	-0.000000
1147	-0.194000
1148	-0.810000
1149	-0.380000
1150	-0.144000
1151	-1.060000
1152	-0.330000
1153	-0.000000
1154	-0.000000
1155	-0.670000
1156	-2.820000
1157	-1.184000
1158	-3.778000
1159	-0.000000
1160	-3.428000
1161	-4.258000
1162	-0.000000
1163	-4.156000
1164	-5.410000
1165	-0.000000
1166	-0.000000
1167	-2.734000
1168	-1.750000
1169	-3.648000
1170	-0.000000
1171	-1.942000
1172	-2.612000
1173	-0.000000

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Coordenada y	Valor y
1174	-0.000000
1175	-0.000000
1176	-0.000000
1177	-0.936000
1178	-0.690000
1179	-0.994000
1180	-0.830000
1181	-0.142000
1182	-0.930000
1183	-1.828000
1184	-1.220000
1185	-0.000000
1186	-0.000000
1187	-1.884000
1188	-1.520000
1189	-2.360000
1190	-1.924000
1191	-0.000000
1192	-1.460000
1193	-1.654000
1194	-3.634000
1195	-0.000000
1196	-0.000000
1197	-4.600000
1198	-1.594000
1199	-1.682000
1200	-3.634000
1201	-1.388000
1202	-6.024000
1203	-1.746000
1204	-7.672000
1205	-0.000000
1206	-0.000000
1207	-0.484000
1208	-0.540000
1209	-0.714000
1210	-0.000000
1211	-0.000000
1212	-0.000000
1213	-0.616000
1214	-1.164000
1215	-2.238000
1216	-1.354000
1217	-0.470000
1218	-2.676000
1219	-0.754000
1220	-0.000000
1221	-0.000000
1222	-0.000000

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Coordenada y	Valor y
1223	-0.000000
1224	-0.000000
1225	-0.000000
1226	-0.250000
1227	-0.000000
1228	-0.000000
1229	-0.104000
1230	-0.000000
1231	-2.262000
1232	-0.024000
1233	-0.000000
1234	-0.000000
1235	-0.000000
1236	-0.000000
1237	-0.132000
1238	-0.000000
1239	-0.000000
1240	-0.000000
1241	-0.090000
1242	-0.000000
1243	-0.000000
1244	-0.372000
1245	-0.000000
1246	-0.000000
1247	-0.000000
1248	-0.028000
1249	-0.372000
1250	-0.000000
1251	-0.000000
1252	-0.000000
1253	-0.000000
1254	-0.000000
1255	-0.000000
1256	-0.000000
1257	-0.000000
1258	-0.000000
1259	-0.120000
1260	-0.000000
1261	-0.000000
1262	-0.000000
1263	-0.000000
1264	-0.300000
1265	-0.720000
1266	-0.000000
1267	-0.334000
1268	-0.266000
1269	-2.316000
1270	-0.000000
1271	-0.020000

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Coordenada y	Valor y
1272	-0.000000
1273	-0.206000
1274	-0.430000
1275	-0.000000
1276	-0.090000
1277	-0.000000
1278	-0.000000
1279	-0.000000
1280	-0.260000
1281	-0.124000
1282	-0.918000
1283	-0.000000
1284	-0.000000
1285	-0.654000
1286	-0.126000
1287	-0.000000
1288	-0.000000
1289	-0.000000
1290	-0.510000
1291	-0.000000
1292	-0.000000
1293	-0.000000
1294	-0.000000
1295	-0.000000
1296	-0.000000
1297	-0.000000
1298	-0.000000
1299	-0.000000
1300	-0.000000
1301	-0.000000
1302	-0.000000
1303	-1.524000
1304	-0.060000
1305	-0.000000
1306	-0.840000
1307	-0.000000
1308	-2.406000
1309	-0.000000
1310	-0.000000
1311	-0.286000
1312	-0.000000
1313	-0.000000
1314	-0.350000
1315	-0.000000
1316	-0.000000
1317	-0.000000
1318	-0.480000
1319	-0.030000
1320	-0.000000

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Coordenada y	Valor y
1321	-0.952000
1322	-0.000000
1323	-0.000000
1324	-0.000000
1325	-1.326000
1326	-0.000000
1327	-0.000000
1328	-0.124000
1329	-0.260000
1330	-0.000000
1331	-0.020000
1332	-0.000000
1333	-0.000000
1334	-0.000000
1335	-0.874000
1336	-3.634000
1337	-0.000000
1338	-0.000000
1339	-0.000000
1340	-4.764000
1341	-0.640000
1342	-0.778000
1343	-0.000000
1344	-5.044000
1345	-0.790000
1346	-0.878000
1347	-0.352000
1348	-0.000000
1349	-0.000000
1350	-0.458000
1351	-0.882000
1352	-1.482000
1353	-1.566000
1354	-0.000000
1355	-3.634000
1356	-5.584000
1357	-1.086000
1358	-6.590000
1359	-0.000000
1360	-0.000000
1361	-1.150000
1362	-3.544000
1363	-0.000000
1364	-0.000000
1365	-3.634000
1366	-0.000000
1367	-0.000000
1368	-0.582000
1369	-0.754000

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Coordenada y	Valor y
1370	-4.976000
1371	-0.546000
1372	-0.000000
1373	-0.752000
1374	-1.888000
1375	-4.424000
1376	-1.448000
1377	-0.000000
1378	-3.634000
1379	-0.000000
1380	-4.658000
1381	-2.810000
1382	-4.728000
1383	-3.370000
1384	-0.000000
1385	-2.064000
1386	-3.488000
1387	-3.634000
1388	-0.000000
1389	-0.000000
1390	-4.602000
1391	-1.000000
1392	-1.074000
1393	-5.444000
1394	-0.950000
1395	-1.778000
1396	-3.634000
1397	-0.000000
1398	-4.816000
1399	-2.518000
1400	-4.776000
1401	-3.388000
1402	-0.000000
1403	-4.328000
1404	-2.164000
1405	-3.566000
1406	-0.000000
1407	-0.000000
1408	-0.000000
1409	-0.020000
1410	-0.000000
1411	-1.556000
1412	-0.000000
1413	-0.292000
1414	-0.481000
1415	-0.782000
1416	-0.000000
1417	-0.000000
1418	-0.000000

Continúa na próxima página

Coordenada y	Valor y
1419	-0.000000
1420	-0.503000
1421	-0.000000
1422	-0.000000
1423	-0.608000
1424	-0.000000
1425	-1.052000
1426	-0.000000
1427	-1.102000
1428	-0.000000
1429	-1.395000
1430	-0.010000
1431	-0.404000
1432	-0.604000
1433	-0.000000
1434	-0.000000
1435	-1.091000
1436	-0.832000
1437	-0.000000
1438	-0.828000
1439	-0.162000
1440	-0.950000
1441	-0.170000
1442	-1.204000
1443	-0.138000
1444	-1.507000
1445	-0.000000
1446	-0.000000
1447	-1.076000
1448	-0.000000
1449	-0.000000
1450	-1.757000
1451	-0.000000
1452	-0.078000
1453	-0.000000
1454	-0.000000
1455	-3.634000
1456	-0.000000
1457	-0.980000
1458	-1.204000
1459	-4.778000
1460	-1.672000
1461	-1.414000
1462	-4.500000
1463	-0.950000
1464	-0.000000
1465	-0.000000
1466	-3.634000
1467	-0.362000

Continua na próxima página

Coordenada y	Valor y
1468	-0.638000
1469	-0.040000
1470	-5.738000
1471	-1.014000
1472	-0.728000
1473	-0.000000
1474	-6.392000
1475	-0.000000
1476	-5.038000
1477	-0.000000
1478	-3.294000
1479	-5.274000
1480	-3.046000
1481	-0.588000
1482	-0.000000
1483	-4.820000
1484	-0.000000
1485	-1.672000
1486	-2.086000
1487	-3.566000
1488	-2.152000
1489	-3.634000
1490	-0.000000
1491	-6.488000
1492	-1.438000
1493	-3.080000
1494	-0.000000
1495	-5.054000
1496	-2.704000
1497	-5.970000
1498	-2.544000
1499	-3.634000
1500	-7.084000
1501	-8.498000
1502	-3.634000
1503	-4.514000

## 4 Observações

- O solver HiGHS foi configurado com o método IPM (Interior Point Method).
- Este arquivo contém a solução detalhada para o problema DEGEN3.
- As variáveis duais representam os multiplicadores de Lagrange das restrições.
- Os custos reduzidos ( $z$ ) indicam o impacto de forçar variáveis não-básicas na base.