2650

4.63

4.92

```
run('D:\Github\cyeow.github.io\fyp\matlab\runlp.m')
Operation terminated by user during matlab.io.spreadsheet.internal.createWorkbook
(line 39)
In matlab.io.spreadsheet.internal.readSpreadsheetFile>getBook (line 158)
       book = matlab.io.spreadsheet.internal.createWorkbook(...
In matlab.io.spreadsheet.internal.readSpreadsheetFile (line 82)
   book = getBook(opts);
In table/readXLSFile (line 52)
out = readSpreadsheetFile(rdOpts);
In table.readFromFile (line 38)
      t = table.readXLSFile(filename, otherArgs);
In readtable (line 143)
t = table.readFromFile(filename, varargin);
In runlp (line 5)
   iInfo = readtable(filename, 'Sheet', 1);%, 'ReadRowNames', true);
In run (line 96)
evalin('caller', [script ';']);
>> cd D:\Github\cyeow.github.io/fyp/matlab
>> edit runlp.m
>> runlp
LP:
                 Optimal objective value is 4.131697e+06.
                 Applied 11 Gomory cuts,
Cut Generation:
                  40 implication cuts, 6 flow cover cuts,
                  and 13 mir cuts.
                  Lower bound is 4.559221e+06.
Branch and Bound:
  nodes total num int
                                  integer
                                              relative
explored time (s) solution
                                    fval
                                                gap (%)
         0.78
    104
                  1 9.162961e+06 4.995180e+01
    116
            0.84
                        2 8.748842e+06 4.756259e+01
    310
            1.16
                        2 8.748842e+06 4.696390e+01
                            8.748842e+06 4.658670e+01
    504
            1.46
                         2
            1.75
    700
                        2 8.748842e+06 4.638808e+01
    893
            2.04
                        2 8.748842e+06 4.623959e+01
            2.34
                         2 8.748842e+06 4.606263e+01
   1087
   1283
            2.68
                         2
                            8.748842e+06
                                           4.585961e+01
            2.99
                        2 8.748842e+06 4.571065e+01
   1475
   1671
            3.33
                        2 8.748842e+06 4.560369e+01
            3.63
                        2 8.748842e+06 4.551827e+01
   1867
            3.94
                        2 8.748842e+06 4.543033e+01
   2063
   2258
            4.27
                        2 8.748842e+06 4.536229e+01
```

2 8.748842e+06 4.529005e+01 2 8.748842e+06 4.519388e+01

2846	5.23	2	8.748842e+06	4.509020e+01
3042	5.54	2	8.748842e+06	4.500291e+01
3238	5.82	2	8.748842e+06	4.494005e+01
3434	6.11	2	8.748842e+06	4.486863e+01
3630	6.38	2	8.748842e+06	4.479920e+01
3825	6.70	2	8.748842e+06	4.473445e+01
4021	6.99	2	8.748842e+06	4.464938e+01
4217	7.27	2	8.748842e+06	4.458709e+01
4413	7.56	2	8.748842e+06	4.451435e+01
4609	7.88	2	8.748842e+06	4.445622e+01
4804	8.18	2	8.748842e+06	4.440308e+01
5000	8.46	2	8.748842e+06	4.434185e+01
5196	8.73	2	8.748842e+06	4.429956e+01
5392	9.02	2	8.748842e+06	4.424521e+01
5588	9.33	2	8.748842e+06	4.419772e+01
5783	9.64	2	8.748842e+06	4.415635e+01
5978	9.92	2	8.748842e+06	4.410206e+01
6174	10.24	2	8.748842e+06	4.404166e+01
6370	10.58	2	8.748842e+06	4.398748e+01
6566	10.92	2	8.748842e+06	4.395445e+01
6760	11.22	2	8.748842e+06	4.391981e+01
6956	11.55	2	8.748842e+06	4.389093e+01
7150	11.84	2	8.748842e+06	4.384972e+01
7343	12.13	2	8.748842e+06	4.381526e+01
7538	12.46	2	8.748842e+06	4.376482e+01
7732	12.78	2	8.748842e+06	4.372818e+01
7924	13.17	2	8.748842e+06	4.368503e+01
8120	13.52	2	8.748842e+06	4.364342e+01
8316	13.83	2	8.748842e+06	4.361236e+01
8511	14.14	2	8.748842e+06	4.357485e+01
8701	14.44	2	8.748842e+06	4.353269e+01
8896	14.73	2	8.748842e+06	4.349374e+01
9092	15.04	2	8.748842e+06	4.347143e+01
9287	15.33	2	8.748842e+06	4.344608e+01
9477	15.60	2	8.748842e+06	4.341079e+01
9668	15.88	2	8.748842e+06	4.337901e+01
9864	16.14	2	8.748842e+06	4.334629e+01
10055	16.42	2	8.748842e+06	4.330438e+01
10244	16.71	2	8.748842e+06	4.327650e+01
10434	16.99	2	8.748842e+06	4.325309e+01
10627	17.30	2	8.748842e+06	4.322669e+01
10820	17.59	2	8.748842e+06	4.320086e+01
11014	17.90	2	8.748842e+06	4.317720e+01
11209	18.17	2	8.748842e+06 8.748842e+06	4.315256e+01
11403	18.45	2		4.313017e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
11597 11788	18.74 19.02	2 2	8.748842e+06 8.748842e+06	4.310342e+01 4.308307e+01
11788	19.02	2	8.748842e+06	4.305373e+01
12180	19.33	2	8.748842e+06 8.748842e+06	4.303373e+01 4.303031e+01
12373	19.03	2	8.748842e+06	4.303031e+01 4.300454e+01
12568	20.22	2	8.748842e+06	4.297184e+01
12761	20.52	2	8.748842e+06	4.294126e+01
12957	20.82	2	8.748842e+06	4.291620e+01
12701	20.02	۷	0.,100120100	1.2710200101

13151	21.12	2	8.748842e+06	4.289029e+01
13347	21.42	2	8.748842e+06	4.286479e+01
13540	21.71	2	8.748842e+06	4.283769e+01
13735	22.01	2	8.748842e+06	4.281281e+01
13931	22.35	2	8.748842e+06	4.278606e+01
14126	22.66	2	8.748842e+06	4.276075e+01
14320	22.98	2	8.748842e+06	4.273980e+01
14516	23.27	2	8.748842e+06	4.271374e+01
14711	23.56	2	8.748842e+06	4.269771e+01
14907	23.91	2	8.748842e+06	4.267453e+01
15103	24.26	2	8.748842e+06	4.264936e+01
15299	24.60	2	8.748842e+06	4.262462e+01
15495	24.92	2	8.748842e+06	4.259475e+01
15690	25.24	2	8.748842e+06	4.256994e+01
15886	25.55	2	8.748842e+06	4.255121e+01
16082	25.85	2	8.748842e+06	4.253303e+01
16278	26.16	2	8.748842e+06	4.251510e+01
16474	26.47	2	8.748842e+06	4.249813e+01
16669	26.77	2	8.748842e+06	4.247333e+01
16865	27.09	2	8.748842e+06	4.245322e+01
17060	27.43	2	8.748842e+06	4.243170e+01
17256	27.74	2	8.748842e+06	4.241568e+01
17452	28.04	2	8.748842e+06	4.239952e+01
17645	28.35	2	8.748842e+06	4.238269e+01
17841	28.68	2	8.748842e+06	4.236162e+01
18037	29.01	2	8.748842e+06	4.234143e+01
18231	29.33	2	8.748842e+06	4.232101e+01
18427	29.62	2	8.748842e+06	4.229234e+01
18622	29.95	2	8.748842e+06	4.227411e+01
18818	30.25	2	8.748842e+06	4.225411e+01
19014	30.52	2	8.748842e+06	4.223244e+01
19210	30.84	2	8.748842e+06	4.221223e+01
19406	31.17	2	8.748842e+06	4.219382e+01
19602	31.49	2	8.748842e+06	4.217575e+01
19798	31.79	2	8.748842e+06	4.215835e+01
19994	32.10	2	8.748842e+06	4.214140e+01
20190	32.41	2	8.748842e+06	4.212079e+01
20385	32.71	2	8.748842e+06	4.209688e+01
30385	48.43	2	8.748842e+06	4.207926e+01
40385	66.12	2	8.748842e+06	4.207926e+01
50385	83.63	2	8.748842e+06	4.207926e+01
60385	100.49	2	8.748842e+06	4.207926e+01
70385	116.89	2	8.748842e+06	4.207926e+01
80385	133.46	2	8.748842e+06	4.207926e+01
90385	148.70	2	8.748842e+06	4.207926e+01
	· · ·	_		

Solver stopped prematurely. Integer feasible point found.

Intlingrog stopped because it exceeded the time limit, options.MaxTime = 7200 (the default

value). The intcon variables are integer within tolerance, options. IntegerTolerance $\not =$ 1e-05

(the default value).

res =

1.0000

1.0000

1.0000

0 0 0

.0000

1.0000

1.0000

1.0000

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0 0

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1.0000

0 0

0 0

0 0 0

0 0 0

```
0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
         0
    0.0155
         0
         0
    0.0155
    0.0155
         0
         0
         0
    1.0000
    0.0031
    0.0031
    0.0031
    0.0031
    1.0000
    1.0000
    0.0031
    0.0031
    0.0031
exitflag =
     2
>> runlp
LP:
                   Optimal objective value is 4.131697e+06.
Cut Generation:
                   Applied 13 Gomory cuts,
                   46 implication cuts, 5 flow cover cuts,
                   and 9 mir cuts.
                   Lower bound is 4.613202e+06.
```

Branch and Bound:

nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
99	0.87	1	1.016910e+07	5.432328e+01
139	0.97	2	9.692836e+06	5.193573e+01
334	1.33	2	9.692836e+06	5.134793e+01
530	1.62	2	9.692836e+06	5.105234e+01
726	1.93	2	9.692836e+06	5.067037e+01
922	2.22	2	9.692836e+06	5.035080e+01
1118	2.55	2	9.692836e+06	5.015896e+01
1313	2.91	2	9.692836e+06	4.999721e+01
1509	3.21	2	9.692836e+06	4.978267e+01
1704	3.50	2	9.692836e+06	4.962451e+01
1900	3.78	2	9.692836e+06	4.945465e+01
2095	4.12	2	9.692836e+06	4.933299e+01
2291	4.41	2	9.692836e+06	4.921268e+01
2487	4.69	2	9.692836e+06	4.909340e+01
2682	4.98	2	9.692836e+06	4.901030e+01
2878	5.28	2	9.692836e+06	4.893248e+01
3073	5.56	2	9.692836e+06	4.884111e+01
3268	5.88	2	9.692836e+06	4.876159e+01
3463	6.24	2	9.692836e+06	4.866737e+01
3659	6.53	2	9.692836e+06	4.858027e+01
3855	6.82	2	9.692836e+06	4.851326e+01
4051	7.14	2	9.692836e+06	4.843967e+01
4247	7.44	2	9.692836e+06	4.837557e+01
4443	7.74	2	9.692836e+06	4.833223e+01
4637	8.01	2	9.692836e+06	4.826634e+01
4833	8.31	2	9.692836e+06	4.819867e+01
5029	8.60	2	9.692836e+06	4.815048e+01
5225	8.89	2	9.692836e+06	4.810167e+01
5420	9.18	2	9.692836e+06	4.804674e+01
5616	9.52	2	9.692836e+06	4.799269e+01
5812	9.84	2	9.692836e+06	4.796277e+01
6007	10.16	2	9.692836e+06	4.792596e+01
6199	10.47	2	9.692836e+06	4.787872e+01
6391	10.85	2	9.692836e+06	4.783193e+01
6586	11.18	2	9.692836e+06	4.779576e+01
6782	11.54	2	9.692836e+06	4.775971e+01
6976	11.89	2	9.692836e+06	4.771518e+01
7170	12.21	2	9.692836e+06	4.767071e+01
7365	12.54	2	9.692836e+06	4.764562e+01
7561	13.02	2	9.692836e+06	4.760857e+01
7756	13.38	2	9.692836e+06	4.756206e+01
7951	13.75	2	9.692836e+06	4.753023e+01
8146	14.11	2	9.692836e+06	4.749628e+01
8340	14.44	2	9.692836e+06	4.746964e+01
8536	14.79	2	9.692836e+06	4.741722e+01
8731	15.25	2	9.692836e+06	4.739129e+01
8927	15.61	2	9.692836e+06	4.735494e+01
9120	16.03	2	9.692836e+06	4.732143e+01
9314	16.38	2	9.692836e+06	4.729226e+01
9507	16.68	2	9.692836e+06	4.725116e+01

9702	17.01	2	9.692836e+06	4.721880e+01	
9898	17.37	2	9.692836e+06	4.719432e+01	
10094	17.74	2	9.692836e+06	4.715685e+01	
10290	18.10	2	9.692836e+06	4.712865e+01	
10486	18.49	2	9.692836e+06	4.710582e+01	
10682	18.83	2	9.692836e+06	4.707191e+01	
10878	19.22	2	9.692836e+06	4.704809e+01	
11074	19.55	2	9.692836e+06	4.701025e+01	
11270	19.91	2	9.692836e+06	4.698859e+01	
11466	20.27	2	9.692836e+06	4.696733e+01	
nodes	total	num int	integer	relative	
explored	time (s)	solution	fval	gap (%)	
11662	20.65	2	9.692836e+06	4.694387e+01	
11858	21.02	2	9.692836e+06	4.691408e+01	
12054	21.38	2	9.692836e+06	4.688216e+01	
12250	21.75	2	9.692836e+06	4.685253e+01	
12446	22.08	2	9.692836e+06	4.682963e+01	
12641	22.45	2	9.692836e+06	4.680479e+01	
12837	22.80	2	9.692836e+06	4.678024e+01	
13032	23.16	2	9.692836e+06	4.674803e+01	
13228	23.51	2	9.692836e+06	4.672852e+01	
13424	23.89	2	9.692836e+06	4.670520e+01	
13620	24.28	2	9.692836e+06	4.668217e+01	
13816	24.66	2	9.692836e+06	4.666266e+01	
14012	25.18	2	9.692836e+06	4.664474e+01	
14208	25.65	2	9.692836e+06	4.661415e+01	
14403	26.03	2	9.692836e+06	4.658376e+01	
14598	26.39	2	9.692836e+06	4.656028e+01	
14794	26.74	2	9.692836e+06	4.653741e+01	
14990	27.12	2	9.692836e+06	4.652174e+01	
15186	27.50	2	9.692836e+06	4.650386e+01	
15382	27.89	2	9.692836e+06	4.648431e+01	
15578	28.26	2	9.692836e+06	4.646677e+01	
15774	28.64	2	9.692836e+06	4.644617e+01	
15970	29.02	2	9.692836e+06	4.642637e+01	
16166	29.41	2	9.692836e+06	4.640707e+01	
16362	29.78	2	9.692836e+06	4.637921e+01	
16558	30.14	2	9.692836e+06	4.635827e+01	
16754	30.51	2	9.692836e+06	4.633604e+01	
16950	30.99	2	9.692836e+06	4.631207e+01	
17146	31.37	2	9.692836e+06	4.628883e+01	
17341	31.70	2	9.692836e+06	4.625952e+01	
17537	32.02	2	9.692836e+06	4.623084e+01	
17733	32.34	2	9.692836e+06	4.620893e+01	
17929	32.68	2	9.692836e+06	4.619302e+01	
18124	33.15	2	9.692836e+06	4.617016e+01	
18320	33.50	2	9.692836e+06	4.615562e+01	
18516	33.85	2	9.692836e+06	4.613831e+01	
18712	34.21	2	9.692836e+06	4.612263e+01	
18908	34.56	2	9.692836e+06	4.609842e+01	
19103	34.90	2	9.692836e+06	4.607382e+01	
19296	35.20	2	9.692836e+06	4.605882e+01	
19489	35.55	2	9.692836e+06	4.603519e+01	
19685	35.92	2	9.692836e+06	4.600970e+01	
19880	36.23	2	9.692836e+06	4.599001e+01	

20074	36.59	2	9.692836e+06	4.597189e+01
20270	37.06	2	9.692836e+06	4.595467e+01
20466	37.44	2	9.692836e+06	4.593955e+01
20662	37.81	2	9.692836e+06	4.592321e+01
20858	38.26	2	9.692836e+06	4.590369e+01
21054	38.65	2	9.692836e+06	4.588530e+01
21250	39.02	2	9.692836e+06	4.586774e+01
21446	39.37	2	9.692836e+06	4.585107e+01
21642	39.85	2	9.692836e+06	4.583097e+01
21837	40.20	2	9.692836e+06	4.581443e+01
22033	40.57	2	9.692836e+06	4.579381e+01
32033	59.95	2	9.692836e+06	4.578228e+01
42033	79.07	2	9.692836e+06	4.578228e+01
52033	99.66	2	9.692836e+06	4.578228e+01
62033	117.77	2	9.692836e+06	4.578228e+01
72033	135.59	2	9.692836e+06	4.578228e+01
82033	153.22	2	9.692836e+06	4.578228e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
92033	169.49	2	9.692836e+06	4.578228e+01
102033	185.35	2	9.692836e+06	4.578228e+01
112033	200.38	2	9.692836e+06	4.578228e+01
122033	214.70	2	9.692836e+06	4.578228e+01
132033	229.83	2	9.692836e+06	4.578228e+01
142033	243.13	2	9.692836e+06	4.578228e+01
152033	255.21	2	9.692836e+06	4.578228e+01
162033	267.85	2	9.692836e+06	4.578228e+01
172033	280.10	2	9.692836e+06	4.578228e+01
182033	292.46	2	9.692836e+06	4.578228e+01
192033	303.92	2	9.692836e+06	4.578228e+01
202033	316.19	2	9.692836e+06	4.578228e+01
212033	327.02	2	9.692836e+06	4.578228e+01
222033	337.51	2	9.692836e+06	4.578228e+01
232033	348.28	2	9.692836e+06	4.578228e+01
242033	358.79	2	9.692836e+06	4.578228e+01
252033	369.26	2	9.692836e+06	4.578228e+01
262033	379.81	2	9.692836e+06	4.578228e+01
272033	390.23	2	9.692836e+06	4.578228e+01
282033	400.57	2	9.692836e+06	4.578228e+01
292033	411.14	2	9.692836e+06	4.578228e+01
302033	421.70	2	9.692836e+06	4.578228e+01
312033	432.40	2	9.692836e+06	4.578228e+01
322033	442.75	2	9.692836e+06	4.578228e+01
332033	453.18	2	9.692836e+06	4.578228e+01
342033	463.45	2	9.692836e+06	4.578228e+01
352033	473.86	2	9.692836e+06	4.578228e+01
362033	484.25	2	9.692836e+06	4.578228e+01
372033	498.12	2	9.692836e+06 9.692836e+06	4.578228e+01 4.578228e+01
382033 392033	513.92 531.17	2	9.692836e+06 9.692836e+06	4.578228e+01 4.578228e+01
402033	546.67	2	9.692836e+06 9.692836e+06	4.578228e+01 4.578228e+01
402033	549.87	3	7.829337e+06	3.287766e+01
414117	559.24	3	7.829337e+06	3.287766e+01
424117	568.38	3	7.829337e+06	3.287766e+01
429807	573.55	4	7.814074e+06	3.274655e+01
727001	515.55	4	/•OT-30/46100	2.2/40336101

434531	577.79	5	7.787779e+06	3.251947e+01
444531	586.50	5	7.787779e+06	3.251947e+01
446488	588.18	6	7.773451e+06	3.239510e+01
456488	596.60	6	7.773451e+06	3.239510e+01
466488	604.73	6	7.773451e+06	3.239510e+01
476488	619.34	6	7.773451e+06	3.239510e+01
486488	634.07	6	7.773451e+06	3.239510e+01
496488	648.78	6	7.773451e+06	3.239510e+01
506488	660.95	6	7.773451e+06	3.239510e+01
516488	673.38	6	7.773451e+06	3.239510e+01
526488	686.47	6	7.773451e+06	3.239510e+01
536488	696.43	6	7.773451e+06	3.239510e+01
546488	706.79	6	7.773451e+06	3.239510e+01
556488	716.97	6	7.773451e+06	3.239510e+01
566488	728.53	6	7.773451e+06	3.239510e+01
576488	741.37	6	7.773451e+06	3.239510e+01
586488	752.47	6	7.773451e+06	3.239510e+01
596488	764.27	6	7.773451e+06	3.239510e+01
606488	776.13	6	7.773451e+06	3.239510e+01
616488	790.43	6	7.773451e+06	3.239510e+01
626488	802.09	6	7.773451e+06	3.239510e+01
636488	812.32	6	7.773451e+06	3.239510e+01
646488	822.89	6	7.773451e+06	3.239510e+01
656488	833.59	6	7.773451e+06	3.239510e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
666488	843.53	6	7.773451e+06	3.239510e+01
676488	853.99	6	7.773451e+06	3.239510e+01
686488	864.00	6	7.773451e+06	3.239510e+01
696488	874.02	6	7.773451e+06	3.239510e+01
706488	883.53	6	7.773451e+06	3.239510e+01
716488	893.57	6	7.773451e+06	3.239510e+01
726488	904.13	6	7.773451e+06	3.239510e+01
736488	913.57	6	7.773451e+06	3.239510e+01
746488	923.17	6	7.773451e+06	3.239510e+01
756488	932.73	6	7.773451e+06	3.239510e+01
766488	943.49	6	7.773451e+06	3.239510e+01
776488	952.93	6	7.773451e+06	3.239510e+01 3.239510e+01
786488 796488	963.36 972.85	6 6	7.773451e+06 7.773451e+06	3.239510e+01 3.239510e+01
803488		7	7.773431e+06 7.743746e+06	3.213576e+01
813488	979.53	7	7.743746e+06	3.213576e+01
823488	992.56 1009.32	7	7.743746e+06	3.213576e+01
833488	1024.76	7	7.743746e+06	3.213576e+01
843488	1024.70	7	7.743746e+06	3.213576e+01
853488	1042.14	7	7.743746e+06	3.213576e+01
863488	1075.57	7	7.743746e+06	3.213576e+01
873488	1090.47	7	7.743746e+06	3.213576e+01
883488	1105.27	7	7.743746e+06	3.213576e+01
893488	1118.21	7	7.743746e+06	3.213576e+01
903488	1130.92	7	7.743746e+06	3.213576e+01
913488	1142.42	7	7.743746e+06	3.213576e+01
923488			7.743746e+06	3.213576e+01
	TT00-01	/	/ • / 4D / 40 H ± U 0	J. Z.I.J.J / NETU !
933488	1153.51 1164.52	7 7		
933488 943488	1164.52 1174.75	7 7 7	7.743746e+06 7.743746e+06 7.743746e+06	3.213576e+01 3.213576e+01 3.213576e+01

953488	1185.28	7	7.743746e+06	3.213576e+01
963488	1195.84	7	7.743746e+06	3.213576e+01
973488	1206.44	7	7.743746e+06	3.213576e+01
983488	1217.02	7	7.743746e+06	3.213576e+01
993488	1227.82	7	7.743746e+06	3.213576e+01
1003488	1238.05	7	7.743746e+06	3.213576e+01
1013488	1248.19	7	7.743746e+06	3.213576e+01
1023488	1257.72	7	7.743746e+06	3.213576e+01
1033488	1267.73	7	7.743746e+06	3.213576e+01
1043488	1277.34	7	7.743746e+06	3.213576e+01
1053488	1287.54	7	7.743746e+06	3.213576e+01
1063488	1296.99	7	7.743746e+06	3.213576e+01
1073488	1306.59	7	7.743746e+06	3.213576e+01
1083488	1316.57	7	7.743746e+06	3.213576e+01
1093488	1326.13	7	7.743746e+06	3.213576e+01
1103488	1335.61	7	7.743746e+06	3.213576e+01
1113488	1344.94	7	7.743746e+06	3.213576e+01
1123488	1354.48	7	7.743746e+06	3.213576e+01
1133488	1364.12	7	7.743746e+06	3.213576e+01
1143488	1373.37	7	7.743746e+06	3.213576e+01
1153488	1373.57	7	7.743746e+06	3.213576e+01
1163488	1391.59	7	7.743746e+06	3.213576e+01
1173488	1400.83	7	7.743746e+06	3.213576e+01
1173488	1410.10	7	7.743746e+06	3.213576e+01
1193488	1419.11	7	7.743746e+06	3.213576e+01
1203488	1428.08	7	7.743746e+06	3.213576e+01
1213488	1420.00	7	7.743746e+06	3.213576e+01
1213488	1437.02	7	7.743746e+06	3.213576e+01
1233488	1454.78	7	7.743746e+06	3.213576e+01
1243488	1463.44	7	7.743746e+06	3.213576e+01
1253488	1472.30	7	7.743746e+06	3.213576e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
1263488	1482.70	7	7.743746e+06	3.213576e+01
1273488	1498.92	7	7.743746e+06	3.213576e+01
1283488	1513.59	7	7.743746e+06	3.213576e+01
1293488	1529.47	7	7.743746e+06	3.213576e+01
1303488	1546.40	7	7.743746e+06	3.213576e+01
1313488	1561.74	7	7.743746e+06	3.213576e+01
1323488	1574.67	7	7.743746e+06	3.213576e+01
1333488	1586.98	7	7.743746e+06	3.213576e+01
1343488	1598.20	7	7.743746e+06	3.213576e+01
		7		
1353488	1609.45		7.743746e+06	3.213576e+01
1363488	1619.67	7	7.743746e+06	3.213576e+01
1373488	1629.74	7	7.743746e+06	3.213576e+01
1383488	1640.18	7	7.743746e+06	3.213576e+01
1393488	1650.33	7	7.743746e+06	3.213576e+01
1403488	1661.02	7	7.743746e+06	3.213576e+01
1413488	1670.69	7	7.743746e+06	3.213576e+01
1423488	1681.06	7	7.743746e+06	3.213576e+01
1433488	1691.83	7	7.743746e+06	3.213576e+01
1443488	1701.34	7	7.743746e+06	3.213576e+01
1453488	1710.73	7	7.743746e+06	3.213576e+01
1463488	1720.38	7	7.743746e+06	3.213576e+01
1473488	1729.83	7	7.743746e+06	3.213576e+01

1483488	1739.41	7	7.743746e+06	3.213576e+01
1493488	1748.89	7	7.743746e+06	3.213576e+01
1503488	1758.22	7	7.743746e+06	3.213576e+01
1513488	1767.69	7	7.743746e+06	3.213576e+01
1523488	1777.30	7	7.743746e+06	3.213576e+01
1533488	1786.97	7	7.743746e+06	3.213576e+01
1543488	1796.90	7	7.743746e+06	3.213576e+01
1553488	1807.82	7	7.743746e+06	3.213576e+01
1563488	1818.92	7	7.743746e+06	3.213576e+01
1573488	1830.08	7	7.743746e+06	3.213576e+01
1583488	1841.01	7	7.743746e+06	3.213576e+01
1593488	1852.21	7	7.743746e+06	3.213576e+01
1603488	1873.72	7	7.743746e+06	3.213576e+01
1613488	1890.89	7	7.743746e+06	3.213576e+01
1623488	1907.59	7	7.743746e+06	3.213576e+01
1633488	1925.26	7	7.743746e+06	3.213576e+01
1643488	1942.69	7	7.743746e+06	3.213576e+01
1653488	1958.57	7	7.743746e+06	3.213576e+01
1663488	1975.20	7	7.743746e+06	3.213576e+01
1673488	1989.80	7	7.743746e+06	3.213576e+01
1683488	2004.31	7	7.743746e+06	3.213576e+01
1693488	2016.94	7	7.743746e+06	3.213576e+01
1703488	2027.97	7	7.743746e+06	3.213576e+01
1713488	2040.18	7	7.743746e+06	3.213576e+01
1723488	2054.32	7	7.743746e+06	3.213576e+01
1733488	2067.04	7	7.743746e+06	3.213576e+01
1743488	2082.08	7	7.743746e+06	3.213576e+01
1753488	2098.96	7	7.743746e+06	3.213576e+01
1763488	2116.29	7	7.743746e+06	3.213576e+01
1773488	2131.41	7	7.743746e+06	3.213576e+01
1783488	2147.08	7	7.743746e+06	3.213576e+01
1793488	2161.24	7	7.743746e+06	3.213576e+01
1803488	2176.19	7	7.743746e+06	3.213576e+01
1813488	2190.54	7	7.743746e+06	3.213576e+01
1823488	2203.73	7	7.743746e+06	3.213576e+01
1833488	2218.88	7	7.743746e+06	3.213576e+01
1843488	2232.79	7	7.743746e+06	3.213576e+01
1853488	2246.58	7	7.743746e+06	3.213576e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
1863488	2261.20	7	7.743746e+06	3.213576e+01
1873488	2274.76	7	7.743746e+06	3.213576e+01
1883488	2287.39	7	7.743746e+06	3.213576e+01
1893488	2300.70	7	7.743746e+06	3.213576e+01
1903488	2312.47	7	7.743746e+06	3.213576e+01
1913488	2325.07	7	7.743746e+06	3.213576e+01
1923488	2336.97	7	7.743746e+06	3.213576e+01
1933488	2349.53	7	7.743746e+06	3.213576e+01
1943488	2362.94	7	7.743746e+06	3.213576e+01
1953488	2377.61	7	7.743746e+06	3.213576e+01
1963488	2392.87	7	7.743746e+06	3.213576e+01
1973488	2406.83	7	7.743746e+06	3.213576e+01
1983488	2429.86	7	7.743746e+06	3.213576e+01
1993488	2450.10	7	7.743746e+06	3.213576e+01
2003488	2470.06	7	7.743746e+06	3.213576e+01

2013488	2491.07	7	7.743746e+06	3.213576e+01
2023488	2512.38	7	7.743746e+06	3.213576e+01
2033488	2530.42	7	7.743746e+06	3.213576e+01
2043488	2550.60	7	7.743746e+06	3.213576e+01
2053488	2571.24	7	7.743746e+06	3.213576e+01
2063488	2589.72	7	7.743746e+06	3.213576e+01
2073488	2606.84	7	7.743746e+06	3.213576e+01
2083488	2622.58	7	7.743746e+06	3.213576e+01
2093488	2636.05	7	7.743746e+06	3.213576e+01
2103488	2649.31	7	7.743746e+06	3.213576e+01
2113488	2662.25	7	7.743746e+06	3.213576e+01
2123488	2675.04	7	7.743746e+06	3.213576e+01
2133488	2686.90	7	7.743746e+06	3.213576e+01
2143488	2699.16	7	7.743746e+06	3.213576e+01
2153488	2711.17	7	7.743746e+06	3.213576e+01
2163488	2722.76	7	7.743746e+06	3.213576e+01
2173488	2735.04	7	7.743746e+06	3.213576e+01
2183488	2746.36	7	7.743746e+06	3.213576e+01
2193488	2757.30	7	7.743746e+06	3.213576e+01
2203488	2768.07	7	7.743746e+06	3.213576e+01
2213488	2779.14	7	7.743746e+06	3.213576e+01
2223488	2789.63	7	7.743746e+06	3.213576e+01
2233488	2800.22	7	7.743746e+06	3.213576e+01
2243488	2810.61	7	7.743746e+06	3.213576e+01
2253488	2820.95	7	7.743746e+06	3.213576e+01
2263488	2831.33	7	7.743746e+06	3.213576e+01
2273488	2841.37	7	7.743746e+06	3.213576e+01
2283488	2851.45	7	7.743746e+06	3.213576e+01
2293488	2861.43	7	7.743746e+06	3.213576e+01
2303488	2871.40	7	7.743746e+06	3.213576e+01
2313488	2880.86	7	7.743746e+06	3.213576e+01
2323488	2891.99	7	7.743746e+06	3.213576e+01
2333488	2905.32	7	7.743746e+06	3.213576e+01
2343488	2916.90	7	7.743746e+06	3.213576e+01
2353488	2929.91	7	7.743746e+06	3.213576e+01
2363488	2953.00	7	7.743746e+06	3.213576e+01
2373488	2978.25	7	7.743746e+06	3.213576e+01
2383488	3000.55	7	7.743746e+06	3.213576e+01
2393488	3021.32	7	7.743746e+06	3.213576e+01
2403488	3040.92	7	7.743746e+06	3.213576e+01
2413488	3059.96	7	7.743746e+06	3.213576e+01
2423488	3084.76	7	7.743746e+06	3.213576e+01
2433488	3103.76	7	7.743746e+06	3.213576e+01
2443488	3121.96	7	7.743746e+06	3.213576e+01
2453488	3137.34	7	7.743746e+06	3.213576e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
2463488	3155.37	7	7.743746e+06	3.213576e+01
2473488	3171.61	7	7.743746e+06	3.213576e+01
2483488	3184.82	7	7.743746e+06	3.213576e+01
2493488	3200.62	7	7.743746e+06	3.213576e+01
2503488	3213.30	7	7.743746e+06	3.213576e+01
2513488	3229.29	7	7.743746e+06	3.213576e+01
2523488	3242.94	7	7.743746e+06	3.213576e+01
2533488	3254.58	7	7.743746e+06	3.213576e+01

2543488	3266.19	7	7.743746e+06	3.213576e+01	
2553488	3281.42	7	7.743746e+06	3.213576e+01	
2563488	3296.48	7	7.743746e+06	3.213576e+01	
2573488	3310.84	7	7.743746e+06	3.213576e+01	
2583488	3323.05	7	7.743746e+06	3.213576e+01	
2593488	3335.51	7	7.743746e+06	3.213576e+01	
2603488	3348.31	7	7.743746e+06	3.213576e+01	
2613488	3361.87	7	7.743746e+06	3.213576e+01	
2623488	3374.67	7	7.743746e+06	3.213576e+01	
2633488	3387.54	7	7.743746e+06	3.213576e+01	
2643488	3401.22	7	7.743746e+06	3.213576e+01	
2653488	3412.76	7	7.743746e+06	3.213576e+01	
2663488	3424.73	7	7.743746e+06	3.213576e+01	
2673488	3436.50	7	7.743746e+06	3.213576e+01	
2683488	3447.71	7	7.743746e+06	3.213576e+01	
2693488	3458.49	7	7.743746e+06	3.213576e+01	
2703488	3472.01	7	7.743746e+06	3.213576e+01	
2713488	3485.24	7	7.743746e+06	3.213576e+01	
2723488	3496.96	7	7.743746e+06	3.213576e+01	
2733488	3509.50	7	7.743746e+06	3.213576e+01	
2743488	3522.99	7	7.743746e+06	3.213576e+01	
2753488	3533.43	7	7.743746e+06	3.213576e+01	
2763488	3543.20	7	7.743746e+06	3.213576e+01	
2773488	3561.02	7	7.743746e+06	3.213576e+01	
2783488	3577.63	7	7.743746e+06	3.213576e+01	
2793488	3592.50	7	7.743746e+06	3.213576e+01	
2803488	3607.81	7	7.743746e+06	3.213576e+01	
2813488	3623.31	7	7.743746e+06	3.213576e+01	
2823488	3638.67	7	7.743746e+06	3.213576e+01	
2833488	3652.03	7	7.743746e+06	3.213576e+01	
2843488	3664.32	7	7.743746e+06	3.213576e+01	
2853488	3677.02	7	7.743746e+06	3.213576e+01	
2863488	3690.29	7	7.743746e+06	3.213576e+01	
2873488	3702.44	7	7.743746e+06	3.213576e+01	
2883488	3712.80	7	7.743746e+06	3.213576e+01	
2893488	3723.67	7	7.743746e+06	3.213576e+01	
2903488	3733.60	7	7.743746e+06	3.213576e+01	
2913488	3743.59	7	7.743746e+06	3.213576e+01	
2923488	3753.61	7	7.743746e+06	3.213576e+01	
2933488	3763.45	7	7.743746e+06	3.213576e+01	
2943488	3773.68	7	7.743746e+06	3.213576e+01	
2953488	3783.23	7	7.743746e+06	3.213576e+01	
2963488	3792.72	7	7.743746e+06	3.213576e+01	
2973488	3802.17	7	7.743746e+06	3.213576e+01	
2983488	3811.95	7	7.743746e+06	3.213576e+01	
2993488	3821.43	7	7.743746e+06	3.213576e+01	
3003488	3830.73	7	7.743746e+06	3.213576e+01	
3013488	3839.86	7	7.743746e+06	3.213576e+01	
3023488	3848.90	7	7.743746e+06	3.213576e+01	
3033488	3858.17	7	7.743746e+06	3.213576e+01	
3043488	3867.10	7	7.743746e+06	3.213576e+01	
3053488	3876.02	7	7.743746e+06	3.213576e+01	
nodes	total	num int	integer	relative	
explored	time (s)	solution	fval	gap (%)	
3063488	3885.02	7	7.743746e+06	3.213576e+01	

3073488	3894.11	7	7.743746e+06	3.213576e+01
3083488	3903.22	7	7.743746e+06	3.213576e+01
3093488	3912.09	7	7.743746e+06	3.213576e+01
3103488	3920.96	7	7.743746e+06	3.213576e+01
3113488	3929.70	7	7.743746e+06	3.213576e+01
3123488	3938.28	7	7.743746e+06	3.213576e+01
3133488	3946.89	7	7.743746e+06	3.213576e+01
3143488	3955.14	7	7.743746e+06	3.213576e+01
3153488	3971.38	7	7.743746e+06	3.213576e+01
3163488	3987.10	7	7.743746e+06	3.213576e+01
3173488	4002.88	7	7.743746e+06	3.213576e+01
3183488	4019.19	7	7.743746e+06	3.213576e+01
3193488	4035.57	7	7.743746e+06	3.213576e+01
3203488	4051.24	7	7.743746e+06	3.213576e+01
3213488	4066.83	7	7.743746e+06	3.213576e+01
3223488	4080.71	7	7.743746e+06	3.213576e+01
3233488	4094.47	7	7.743746e+06	3.213576e+01
3243488	4107.14	7	7.743746e+06	3.213576e+01
3253488	4118.01	7	7.743746e+06	3.213576e+01
3263488	4129.23	7	7.743746e+06	3.213576e+01
3273488	4139.63	7	7.743746e+06	3.213576e+01
3283488	4150.15	7	7.743746e+06	3.213576e+01
3293488	4159.66	7	7.743746e+06	3.213576e+01
3303488	4169.67	7	7.743746e+06	3.213576e+01
3313488	4179.54	7	7.743746e+06	3.213576e+01
3323488	4189.41	7	7.743746e+06	3.213576e+01
3333488	4199.15	7	7.743746e+06	3.213576e+01
3343488	4209.15	7	7.743746e+06	3.213576e+01
3353488	4218.57	7	7.743746e+06	3.213576e+01
3363488	4228.27	7	7.743746e+06	3.213576e+01
3373488	4237.50	7	7.743746e+06	3.213576e+01
3383488	4247.22	7	7.743746e+06	3.213576e+01
3393488	4256.38	7	7.743746e+06	3.213576e+01
3403488	4265.63	7	7.743746e+06	3.213576e+01
3413488	4275.42	7	7.743746e+06	3.213576e+01
3423488	4284.73	7	7.743746e+06	3.213576e+01
3433488	4293.88	7	7.743746e+06	3.213576e+01
3443488	4302.96	7	7.743746e+06	3.213576e+01
3453488	4312.65	7	7.743746e+06	3.213576e+01
3463488	4322.91	7	7.743746e+06	3.213576e+01
3473488	4334.99	7	7.743746e+06	3.213576e+01
3483488	4345.53	7	7.743746e+06	3.213576e+01
3493488	4354.76	7	7.743746e+06	3.213576e+01
3503488	4363.55	7	7.743746e+06	3.213576e+01
3513488	4372.35	7	7.743746e+06	3.213576e+01
3523488	4372.33	7	7.743746e+06	3.213576e+01
3533488	4389.78	7	7.743746e+06	3.213576e+01
			7.743746e+06	
3543488 3553488	4398.51 4407.27	7 7	7.743746e+06	3.213576e+01 3.213576e+01
			7.743746e+06	
3563488	4419.36	7 7		3.213576e+01
3573488 3583488	4433.80 4448.10	7	7.743746e+06 7.743746e+06	3.213576e+01 3.213576e+01
3593488		7	7.743746e+06	
3603488	4462.20 4475.11	7	7.743746e+06 7.743746e+06	3.213576e+01 3.213576e+01
3613488	4487.55	7	7.743746e+06	3.213576e+01

3623488	4499.91	7	7.743746e+06	3.213576e+01
3633488	4511.66	7	7.743746e+06	3.213576e+01
3643488	4522.97	7	7.743746e+06	3.213576e+01
3653488	4534.07	7	7.743746e+06	3.213576e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
3663488	4545.11	7	7.743746e+06	3.213576e+01
3673488	4556.15	7	7.743746e+06	3.213576e+01
3683488	4567.09	7	7.743746e+06	3.213576e+01
3693488	4578.09	7	7.743746e+06	3.213576e+01
3703488	4588.90	7	7.743746e+06	3.213576e+01
3713488	4599.97	7	7.743746e+06	3.213576e+01
3723488	4613.07	7	7.743746e+06	3.213576e+01
3733488	4626.78	7	7.743746e+06	3.213576e+01
3743488	4641.93	7	7.743746e+06	3.213576e+01 3.213576e+01
3753488	4657.21	7	7.743746e+06	
3763488	4671.54 4686.47	7 7	7.743746e+06 7.743746e+06	3.213576e+01 3.213576e+01
3773488 3783488	4698.27	7	7.743746e+06	3.213576e+01 3.213576e+01
3793488	4710.44	7	7.743746e+06	3.213576e+01 3.213576e+01
3803488	4710.44	7	7.743746e+06	3.213576e+01 3.213576e+01
3813488	4722.25	7	7.743746e+06	3.213576e+01
3823488	4747.51	7	7.743746e+06	3.213576e+01
3833488	4767.44	7	7.743746e+06	3.213576e+01
3843488	4788.30	7	7.743746e+06	3.213576e+01
3853488	4800.59	7	7.743746e+06	3.213576e+01
3863488	4811.25	7	7.743746e+06	3.213576e+01
3873488	4820.99	7	7.743746e+06	3.213576e+01
3883488	4830.25	7	7.743746e+06	3.213576e+01
3893488	4839.51	7	7.743746e+06	3.213576e+01
3903488	4848.40	7	7.743746e+06	3.213576e+01
3913488	4862.09	7	7.743746e+06	3.213576e+01
3923488	4877.42	7	7.743746e+06	3.213576e+01
3933488	4891.78	7	7.743746e+06	3.213576e+01
3943488	4903.67	7	7.743746e+06	3.213576e+01
3953488	4913.87	7	7.743746e+06	3.213576e+01
3963488	4925.06	7	7.743746e+06	3.213576e+01
3973488	4936.14	7	7.743746e+06	3.213576e+01
3983488	4946.02	7	7.743746e+06	3.213576e+01
3993488	4956.51	7	7.743746e+06	3.213576e+01
4003488	4967.29	7	7.743746e+06	3.213576e+01
4013488	4977.52	7	7.743746e+06	3.213576e+01
4023488	4987.86	7	7.743746e+06	3.213576e+01
4033488	4997.34	7	7.743746e+06	3.213576e+01
4043488	5007.22	7	7.743746e+06	3.213576e+01
4053488	5016.50	7	7.743746e+06	3.213576e+01
4063488	5025.98	7	7.743746e+06	3.213576e+01
4073488	5035.49	7	7.743746e+06	3.213576e+01
4083488	5044.47	7	7.743746e+06	3.213576e+01
4093488	5053.83	7	7.743746e+06	3.213576e+01
4103488	5062.90	7	7.743746e+06	3.213576e+01
4113488	5071.52	7	7.743746e+06	3.213576e+01
4123488	5080.12	7	7.743746e+06	3.213576e+01
4133488	5088.59	7	7.743746e+06	3.213576e+01
4143488	5100.64	7	7.743746e+06	3.213576e+01

4153488	5114.35	7	7.743746e+06	3.213576e+01
4163488	5127.35	7	7.743746e+06	3.213576e+01
4173488	5140.21	7	7.743746e+06	3.213576e+01
4183488	5152.66	7	7.743746e+06	3.213576e+01
4193488	5164.38	7	7.743746e+06	3.213576e+01
4203488	5175.55	7	7.743746e+06	3.213576e+01
4213488	5185.56	7	7.743746e+06	3.213576e+01
4223488	5195.96	7	7.743746e+06	3.213576e+01
4233488	5205.42	7	7.743746e+06	3.213576e+01
4243488	5215.46	7	7.743746e+06	3.213576e+01
4253488	5225.78	7	7.743746e+06	3.213576e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
4263488	5235.46	7	7.743746e+06	3.213576e+01
4273488	5244.96	7	7.743746e+06	3.213576e+01
4283488	5254.30	7	7.743746e+06	3.213576e+01
4293488	5263.63	7	7.743746e+06	3.213576e+01
4303488	5273.22	7	7.743746e+06	3.213576e+01
4313488	5282.40	7	7.743746e+06	3.213576e+01
4323488	5291.55	7	7.743746e+06	3.213576e+01
4333488	5300.54	7	7.743746e+06	3.213576e+01
4343488	5310.00	7	7.743746e+06	3.213576e+01
4353488	5318.82	7	7.743746e+06	3.213576e+01
4363488	5327.76	7	7.743746e+06	3.213576e+01
4373488	5336.44	7	7.743746e+06	3.213576e+01
4383488	5345.11	7	7.743746e+06	3.213576e+01
4393488	5353.78	7	7.743746e+06	3.213576e+01
4403488	5369.43	7	7.743746e+06	3.213576e+01
4413488	5385.89	7	7.743746e+06	3.213576e+01
4423488	5401.71	7	7.743746e+06	3.213576e+01
4433488	5418.75	7	7.743746e+06	3.213576e+01
4443488	5434.68	7	7.743746e+06	3.213576e+01
4453488	5451.75	7	7.743746e+06	3.213576e+01
4463488	5466.87	7	7.743746e+06	3.213576e+01
4473488	5481.66	7	7.743746e+06	3.213576e+01
4483488	5496.70	7	7.743746e+06	3.213576e+01
4493488	5512.29	7	7.743746e+06	3.213576e+01
4503488	5526.92	7	7.743746e+06	3.213576e+01
4513488	5541.48	7	7.743746e+06	3.213576e+01
4523488	5554.93	7	7.743746e+06	3.213576e+01
4533488	5566.93	7	7.743746e+06	3.213576e+01
4543488	5579.00	7	7.743746e+06	3.213576e+01
4553488	5589.80	7	7.743746e+06	3.213576e+01
4563488	5599.68	7	7.743746e+06	3.213576e+01
4573488	5609.23	7	7.743746e+06	3.213576e+01
4583488	5619.29	7	7.743746e+06	3.213576e+01
4593488	5628.72	7	7.743746e+06	3.213576e+01
4603488	5637.92	7	7.743746e+06	3.213576e+01
4613488	5647.42	7	7.743746e+06	3.213576e+01
4623488	5656.56	7	7.743746e+06	3.213576e+01
4633488	5665.50	7	7.743746e+06	3.213576e+01
4643488	5674.32	7	7.743746e+06	3.213576e+01
4653488	5683.13	7	7.743746e+06	3.213576e+01
4663488	5691.84	7	7.743746e+06	3.213576e+01
4673488	5700.78	7	7.743746e+06	3.213576e+01

4683488	5710.11	7	7.743746e+06	3.213576e+01	
4693488	5718.87	7	7.743746e+06	3.213576e+01	
4703488	5727.64	7	7.743746e+06	3.213576e+01	
4713488	5736.26	7	7.743746e+06	3.213576e+01	
4723488	5744.73	7	7.743746e+06	3.213576e+01	
4733488	5753.22	7	7.743746e+06	3.213576e+01	
4743488	5761.62	7	7.743746e+06	3.213576e+01	
4753488	5773.15	7	7.743746e+06	3.213576e+01	
4763488	5788.89	7	7.743746e+06	3.213576e+01	
4773488	5803.27	7	7.743746e+06	3.213576e+01	
4783488	5817.64	7	7.743746e+06	3.213576e+01	
4793488	5831.58	7	7.743746e+06	3.213576e+01	
4803488	5845.76	7	7.743746e+06	3.213576e+01	
4813488	5859.01	7	7.743746e+06	3.213576e+01	
4823488	5870.76	7	7.743746e+06	3.213576e+01	
4833488	5882.17	7	7.743746e+06	3.213576e+01	
4843488	5892.74	7	7.743746e+06	3.213576e+01	
4853488	5903.45	7	7.743746e+06	3.213576e+01	
nodes	total	num int	integer	relative	
explored	time (s)	solution	fval	gap (%)	
4863488	5913.63	7	7.743746e+06	3.213576e+01	
4873488	5923.87	7	7.743746e+06	3.213576e+01	
4883488	5933.82	7	7.743746e+06	3.213576e+01	
4893488	5944.01	7	7.743746e+06	3.213576e+01	
4903488	5953.72	7	7.743746e+06	3.213576e+01	
4913488	5963.17	7	7.743746e+06	3.213576e+01	
4923488	5973.05	7	7.743746e+06	3.213576e+01	
4933488	5982.50	7	7.743746e+06	3.213576e+01	
4943488	5991.81	7	7.743746e+06	3.213576e+01	
4953488	6001.36	7	7.743746e+06	3.213576e+01	
4963488	6010.56	7	7.743746e+06	3.213576e+01	
4973488	6019.48	7	7.743746e+06	3.213576e+01	
4983488	6028.67	7	7.743746e+06	3.213576e+01	
4993488	6037.73	7	7.743746e+06	3.213576e+01	
5003488	6046.28	7	7.743746e+06	3.213576e+01	
5013488	6055.48	7	7.743746e+06	3.213576e+01	
5023488	6064.45	7	7.743746e+06	3.213576e+01	
5033488	6073.28	7	7.743746e+06	3.213576e+01	
5043488	6082.33	7	7.743746e+06	3.213576e+01	
5053488	6091.16	7	7.743746e+06	3.213576e+01	
5063488	6099.99	7	7.743746e+06	3.213576e+01	
5073488	6108.57	7	7.743746e+06	3.213576e+01	
5083488	6116.94	7	7.743746e+06	3.213576e+01	
5093488	6136.75	7	7.743746e+06	3.213576e+01	
5103488	6153.90	7	7.743746e+06	3.213576e+01	
5113488	6170.78	7	7.743746e+06	3.213576e+01	
5123488	6187.69	7	7.743746e+06	3.213576e+01	
5133488	6205.06	7	7.743746e+06	3.213576e+01	
5143488	6221.85	7	7.743746e+06	3.213576e+01	
5153488	6237.34	7	7.743746e+06	3.213576e+01	
5163488	6253.07	7	7.743746e+06	3.213576e+01	
5173488	6267.95	7	7.743746e+06	3.213576e+01	
5183488	6280.79	7	7.743746e+06	3.213576e+01	
5193488	6293.05	7	7.743746e+06	3.213576e+01	
5203488	6304.48	7	7.743746e+06	3.213576e+01	

5213488	6316.66	7	7.743746e+06	3.213576e+01	
5223488	6329.00	7	7.743746e+06	3.213576e+01	
5233488	6342.04	7	7.743746e+06	3.213576e+01	
5243488	6355.26	7	7.743746e+06	3.213576e+01	
5253488	6368.44	7	7.743746e+06	3.213576e+01	
5263488	6381.91	7	7.743746e+06	3.213576e+01	
5273488	6394.66	7	7.743746e+06	3.213576e+01	
5283488	6408.49	7	7.743746e+06	3.213576e+01	
5293488	6421.99	7	7.743746e+06	3.213576e+01	
5303488	6435.60	7	7.743746e+06	3.213576e+01	
5313488	6449.41	7	7.743746e+06	3.213576e+01	
5323488	6462.84	7	7.743746e+06	3.213576e+01	
5333488	6476.27	7	7.743746e+06	3.213576e+01	
5343488	6489.95	7	7.743746e+06	3.213576e+01	
5353488	6503.68	7	7.743746e+06	3.213576e+01	
5363488	6517.56	7	7.743746e+06	3.213576e+01	
5373488	6531.28	7	7.743746e+06	3.213576e+01	
5383488	6545.09	7	7.743746e+06	3.213576e+01	
5393488	6558.39	7	7.743746e+06	3.213576e+01	
5403488	6571.82	7	7.743746e+06	3.213576e+01	
5413488	6584.51	7	7.743746e+06	3.213576e+01	
5423488	6598.47	7	7.743746e+06	3.213576e+01	
5433488	6612.02	7	7.743746e+06	3.213576e+01	
5443488	6625.07	7	7.743746e+06	3.213576e+01	
5453488	6637.76	7	7.743746e+06	3.213576e+01	
nodes	total	num int	integer	relative	
explored					
evbrored	time (s)	solution	fval	gap (%)	
5463488	time (s) 6650.39	solution 7	7.743746e+06	3.213576e+01	
=		7 7	7.743746e+06 7.743746e+06	3.213576e+01 3.213576e+01	
5463488	6650.39 6662.54 6675.52	7	7.743746e+06	3.213576e+01 3.213576e+01	
5463488 5473488 5483488 5483544	6650.39 6662.54 6675.52 6675.59	7 7 7 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483488 5483544 5493544	6650.39 6662.54 6675.52 6675.59 6687.65	7 7 7 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01 3.195451e+01	
5463488 5473488 5483488 5483544 5493544 5503544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46	7 7 7 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06 7.723119e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01 3.195451e+01 3.195451e+01	
5463488 5473488 5483488 5483544 5493544 5503544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98	7 7 7 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01	
5463488 5473488 5483448 5493544 5503544 5513544 5523544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24	7 7 7 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01	
5463488 5473488 5483448 5493544 5503544 5513544 5523544 5533544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36	7 7 7 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5533544 5543544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76	7 7 7 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5543544 5553544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26	7 7 7 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5543544 5553544 5563544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49	7 7 7 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01 3.195451e+01	
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5463488 5473488 5483544 5493544 5503544 5513544 5523544 5533544 5553544 5563544 5573544 5583544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49	7 7 7 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5533544 5543544 5563544 5563544 5573544 5583544 5593544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74	7 7 7 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5543544 5553544 5563544 5573544 5573544 5593544 5603544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 548344 5493544 5503544 5513544 5523544 5533544 5543544 5563544 5573544 5573544 5583544 5593544 5603544 5603544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45	7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 548344 5493544 5503544 5513544 5523544 5533544 5533544 5563544 5573544 5573544 5593544 5603544 5603544 5613544 5623544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 548344 5493544 5503544 5513544 5523544 5533544 5543544 5563544 5563544 5573544 5583544 5593544 5603544 5603544 5623544 5623544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52 6980.12	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5543544 5543544 5563544 5573544 5583544 5593544 5603544 5613544 5613544 5623544 5623544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52 6980.12 6991.19	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5533544 5533544 5573544 5573544 5593544 5603544 5613544 5623544 5623544 5623544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52 6980.12 6991.19 7001.72	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5533544 5533544 5563544 5573544 5593544 5603544 5613544 5623544 5633544 5633544 5643544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52 6980.12 6991.19 7001.72 7012.89	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5533544 5533544 5563544 5563544 5593544 5603544 5613544 5623544 5623544 5643544 5643544 5663544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52 6980.12 6991.19 7001.72 7012.89 7022.99	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5543544 5543544 5563544 5563544 5593544 5603544 5613544 5623544 5623544 5633544 5633544 5633544 5643544 5663544 5673544 5673544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52 6980.12 6991.19 7001.72 7012.89 7022.99 7033.43	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5533544 5543544 5563544 5573544 5593544 5693544 5633544 5633544 5633544 5633544 5633544 5633544 5633544 5633544 5633544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52 6980.12 6991.19 7001.72 7012.89 7022.99 7033.43 7043.29	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5533544 5533544 5533544 5573544 5593544 5693544 5643544 5643544 5643544 5663544 5663544 5673544 5683544 5693544 5693544 5703544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52 6980.12 6991.19 7001.72 7012.89 7022.99 7033.43 7043.29 7053.30	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	
5463488 5473488 5483544 5493544 5503544 5513544 5523544 5533544 5543544 5563544 5573544 5593544 5693544 5633544 5633544 5633544 5633544 5633544 5633544 5633544 5633544 5633544	6650.39 6662.54 6675.52 6675.59 6687.65 6700.46 6718.98 6746.24 6770.36 6796.76 6821.26 6847.49 6872.15 6896.49 6918.74 6936.80 6953.45 6967.52 6980.12 6991.19 7001.72 7012.89 7022.99 7033.43 7043.29	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.743746e+06 7.743746e+06 7.743746e+06 7.723119e+06	3.213576e+01 3.213576e+01 3.213576e+01 3.195451e+01	

5733544	7082.74	8	7.723119e+06	3.195451e+01
5743544	7092.67	8	7.723119e+06	3.195451e+01
5753544	7102.09	8	7.723119e+06	3.195451e+01
5763544	7111.94	8	7.723119e+06	3.195451e+01
5773544	7121.62	8	7.723119e+06	3.195451e+01
5783544	7130.60	8	7.723119e+06	3.195451e+01
5793544	7139.81	8	7.723119e+06	3.195451e+01
5803544	7148.60	8	7.723119e+06	3.195451e+01
5813544	7157.51	8	7.723119e+06	3.195451e+01
5823544	7166.78	8	7.723119e+06	3.195451e+01
5833544	7175.91	8	7.723119e+06	3.195451e+01
5843544	7184.89	8	7.723119e+06	3.195451e+01
5853544	7193.67	8	7.723119e+06	3.195451e+01

Solver stopped prematurely. Integer feasible point found.

Intlinprog stopped because it exceeded the time limit, options. MaxTime = 7200 (the default

value). The intcon variables are integer within tolerance, options. Integer Tolerance $\stackrel{\checkmark}{}$ 1e-05

(the default value).

```
res =
```

> 0 0.9112

0

0.0888

0.1184

0.9704

0.0296

0.6345

0.3655

0.7927

0.2073

0.1480 0.8520

1.0000

01.0000

1.0000

1.0000

```
1.0000
```

1.0000

1.0000

1.0000

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1.0000

1.0000 1.0000

1.0000

1.0000

1.0000

1.0000

01.0000

1.0000

1.0000

0.9704

0.0296

0.0296

0.9704

0.9112

0.0888

0.8816

0.1184

U

0.9704

0.0296

0.6345

0.3655

0.7927

0.2073

0 0 0

0.1480

0.8520

exitflag =

2

>> runlp

LP: Optimal objective value is 4.148268e+06.

Cut Generation: Applied 15 Gomory cuts,

43 implication cuts, 6 flow cover cuts,

and 11 mir cuts.

Lower bound is 4.621699e+06.

Branch and Bound:

nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
195	1.00	0	_	_
391	1.42	0	_	_
587	1.75	0	_	_
747	2.06	1	1.340314e+07	6.315470e+01
942	2.43	1	1.340314e+07	6.277939e+01
1137	2.79	1	1.340314e+07	6.245971e+01
1332	3.17	1	1.340314e+07	6.222966e+01
1527	3.51	1	1.340314e+07	6.212968e+01
1723	3.84	1	1.340314e+07	6.200301e+01
1835	4.03	2	1.215225e+07	5.802178e+01
2031	4.39	2	1.215225e+07	5.790263e+01
2225	4.73	2	1.215225e+07	5.780262e+01
2269	4.83	3	1.191744e+07	5.693031e+01
2465	5.20	3	1.191744e+07	5.684022e+01
2659	5.52	3	1.191744e+07	5.675617e+01
2853	5.85	3	1.191744e+07	5.664455e+01
3048	6.17	3	1.191744e+07	5.657776e+01
3244	6.48	3	1.191744e+07	5.649568e+01
3436	6.79	3	1.191744e+07	5.644564e+01
3629	7.20	3	1.191744e+07	5.638098e+01
3824	7.52	3	1.191744e+07	5.632220e+01
4019	7.83	3	1.191744e+07	5.626288e+01
4026	7.84	4	1.173619e+07	5.558127e+01
4219	8.18	4	1.173619e+07	5.550356e+01
4415	8.49	4	1.173619e+07	5.544950e+01
4609	8.82	4	1.173619e+07	5.538059e+01
4805	9.13	4	1.173619e+07	5.530954e+01

4998	9.47	4	1.173619e+07	5.525075e+01	
5190	9.82	4	1.173619e+07	5.519384e+01	
5383	10.21	4	1.173619e+07	5.513438e+01	
5576	10.55	4	1.173619e+07	5.507313e+01	
5772	10.89	4	1.173619e+07	5.501097e+01	
5967	11.22	4	1.173619e+07	5.497263e+01	
6163	11.55	4	1.173619e+07	5.489620e+01	
6358	11.87	4	1.173619e+07	5.484513e+01	
6551	12.17	4	1.173619e+07	5.477614e+01	
6746	12.53	4	1.173619e+07	5.471136e+01	
6941	12.88	4	1.173619e+07	5.465717e+01	
7136	13.24	4	1.173619e+07	5.461076e+01	
7329	13.60	4	1.173619e+07	5.455454e+01	
7525	14.12	4	1.173619e+07	5.448683e+01	
7719	14.60	4	1.173619e+07	5.443894e+01	
7914	14.96	4	1.173619e+07	5.439810e+01	
8110	15.31	4	1.173619e+07	5.436427e+01	
8305	15.75	4	1.173619e+07	5.432288e+01	
8497	16.07	4	1.173619e+07	5.429039e+01	
8693	16.39	4	1.173619e+07	5.424833e+01	
8887	16.74	4	1.173619e+07	5.421648e+01	
9080	17.05	4	1.173619e+07	5.417551e+01	
9269	17.37	4	1.173619e+07	5.411920e+01	
9463	17.71	4	1.173619e+07	5.406981e+01	
9654	18.04	4	1.173619e+07	5.401182e+01	
9848	18.38	4	1.173619e+07	5.397321e+01	
10043	18.71	4	1.173619e+07	5.392681e+01	
10237	19.04	4	1.173619e+07	5.388893e+01	
10429	19.37	4	1.173619e+07	5.383896e+01	
10623	19.73	4	1.173619e+07	5.377669e+01	
10817	20.07	4	1.173619e+07	5.372003e+01	
11008	20.42	4	1.173619e+07	5.368817e+01	
11202	20.74	4	1.173619e+07	5.365210e+01	
nodes	total	num int	integer	relative	
explored	time (s)	solution	fval	gap (%)	
11397	21.10	4	1.173619e+07	5.361310e+01	
11589	21.56	4	1.173619e+07	5.357925e+01	
11785	22.00	4	1.173619e+07	5.353095e+01	
11977	22.35	4	1.173619e+07	5.348231e+01	
12167	22.69	4	1.173619e+07	5.344402e+01	
12359	23.02	4	1.173619e+07	5.341176e+01	
12539	23.30	4	1.173619e+07	5.337418e+01	
12722	23.64	4	1.173619e+07	5.333758e+01	
12914	24.06	4	1.173619e+07	5.330259e+01	
13102	24.38	4	1.173619e+07	5.326951e+01	
13295	24.69	4	1.173619e+07	5.323739e+01	
13489	25.17	4	1.173619e+07	5.320775e+01	
13683	25.50	4	1.173619e+07	5.317157e+01	
13879	25.83	4	1.173619e+07	5.312922e+01	
14068	26.14	4	1.173619e+07	5.309530e+01	
14262	26.46	4	1.173619e+07	5.305919e+01	
14456	26.77	4	1.173619e+07	5.302251e+01	
14648	27.08	4	1.173619e+07	5.298836e+01	
14840	27.39	4	1.173619e+07	5.295802e+01	
15034	27.71	4	1.173619e+07	5.292192e+01	

15228	28.03	4	1.173619e+07	5.289326e+01	
15420	28.34	4	1.173619e+07	5.286411e+01	
15611	28.74	4	1.173619e+07	5.283568e+01	
15804	29.06	4	1.173619e+07	5.281165e+01	
15996	29.40	4	1.173619e+07	5.277705e+01	
16187	29.74	4	1.173619e+07	5.275144e+01	
16380	30.07	4	1.173619e+07	5.272315e+01	
16575	30.43	4	1.173619e+07	5.268646e+01	
16769	30.79	4	1.173619e+07	5.266322e+01	
16964	31.22	4	1.173619e+07	5.263631e+01	
17159	31.58	4	1.173619e+07	5.260912e+01	
17355	31.94	4	1.173619e+07	5.258012e+01	
17550	32.40	4	1.173619e+07	5.255246e+01	
17744	32.74	4	1.173619e+07	5.252690e+01	
17930	33.05	4	1.173619e+07	5.250185e+01	
18126	33.40	4	1.173619e+07	5.247885e+01	
18320	33.74	4	1.173619e+07	5.245120e+01	
18509	34.06	4	1.173619e+07	5.242369e+01	
18700	34.48	4	1.173619e+07	5.240344e+01	
18892	34.87	4	1.173619e+07	5.238189e+01	
19087	35.36	4	1.173619e+07	5.236036e+01	
19283	35.69	4	1.173619e+07	5.233754e+01	
19477	35.99	4	1.173619e+07	5.231191e+01	
19670	36.29	4	1.173619e+07	5.229025e+01	
19865	36.61	4	1.173619e+07	5.225800e+01	
20055	36.91	4	1.173619e+07	5.223841e+01	
20246	37.22	4	1.173619e+07	5.221761e+01	
20441	37.53	4	1.173619e+07	5.220339e+01	
20637	37.84	4	1.173619e+07	5.218333e+01	
20833	38.15	4	1.173619e+07	5.216219e+01	
21025	38.48	4	1.173619e+07	5.214209e+01	
21217	38.80	4	1.173619e+07	5.212209e+01	
21411	39.11	4	1.173619e+07	5.210100e+01	
21602	39.46	4	1.173619e+07	5.208115e+01	
21796	39.80	4	1.173619e+07	5.205855e+01	
21992	40.18	4	1.173619e+07	5.204370e+01	
22188	40.52	4	1.173619e+07	5.202835e+01	
22379	40.98	4	1.173619e+07	5.201021e+01	
22570	41.40	4	1.173619e+07	5.198726e+01	
32570	61.49	4	1.173619e+07	5.197028e+01	
nodes	total	num int	integer	relative	
explored	time (s)	solution	fval	gap (%)	
42570	83.16	4	1.173619e+07	5.197028e+01	
52570	104.82	4	1.173619e+07	5.197028e+01	
62570	123.13	4	1.173619e+07	5.197028e+01	
72570	141.40	4	1.173619e+07	5.197028e+01	
82570	159.54	4	1.173619e+07	5.197028e+01	
92570	176.35	4	1.173619e+07	5.197028e+01	
102570	192.28	4	1.173619e+07	5.197028e+01	
112570	206.77	4	1.173619e+07	5.197028e+01	
122570	220.55	4	1.173619e+07	5.197028e+01	
132570	234.90	4	1.173619e+07	5.197028e+01	
142570	247.95	4	1.173619e+07	5.197028e+01	
152570	260.70	4	1.173619e+07	5.197028e+01	
162570	273.27	4	1.173619e+07	5.197028e+01	

172570	285.67	4	1.173619e+07	5.197028e+01
182570	297.42	4	1.173619e+07	5.197028e+01
192570	308.64	4	1.173619e+07	5.197028e+01
202570	319.96	4	1.173619e+07	5.197028e+01
212570	331.00	4	1.173619e+07	5.197028e+01
222570	342.04	4	1.173619e+07	5.197028e+01
232570	353.18	4	1.173619e+07	5.197028e+01
242570	364.14	4	1.173619e+07	5.197028e+01
252570	375.19	4	1.173619e+07	5.197028e+01
262570	386.25	4	1.173619e+07	5.197028e+01
272570	397.33	4	1.173619e+07	5.197028e+01
282570	408.62	4	1.173619e+07	5.197028e+01
292570	419.90	4	1.173619e+07	5.197028e+01
302570	431.85	4	1.173619e+07	5.197028e+01
312570	444.21	4	1.173619e+07	5.197028e+01
322570	456.49	4	1.173619e+07	5.197028e+01
332570	468.86	4	1.173619e+07	5.197028e+01
342570	481.06	4	1.173619e+07	5.197028e+01
352570	493.74	4	1.173619e+07	5.197028e+01
362570	506.22	4	1.173619e+07	5.197028e+01
372570	522.75	4	1.173619e+07	5.197028e+01
382570	544.92	4	1.173619e+07	5.197028e+01
392570	565.03	4	1.173619e+07	5.197028e+01
402570	582.76	4	1.173619e+07	5.197028e+01
412570	602.74	4	1.173619e+07	5.197028e+01
422570	622.89	4	1.173619e+07	5.197028e+01
432570	640.98	4	1.173619e+07	5.197028e+01
442570	657.37	4	1.173619e+07	5.197028e+01
452570	675.13	4	1.173619e+07	5.197028e+01
462570	693.18	4	1.173619e+07	5.197028e+01
472570	708.57	4	1.173619e+07	5.197028e+01
482570	725.85	4	1.173619e+07	5.197028e+01
492570	744.47	4	1.173619e+07	5.197028e+01
502570	764.46	4	1.173619e+07	5.197028e+01
512570	782.55	4	1.173619e+07	5.197028e+01
522570	802.89	4	1.173619e+07	5.197028e+01
532570	819.25	4	1.173619e+07	5.197028e+01
542570	839.60	4	1.173619e+07	5.197028e+01
552570	859.59	4	1.173619e+07	5.197028e+01
562570	876.92	4	1.173619e+07	5.197028e+01
572570	897.53	4	1.173619e+07	5.197028e+01
582570	918.35	4	1.173619e+07	5.197028e+01
592570	937.96	4	1.173619e+07	5.197028e+01
602570	960.44	4	1.173619e+07	5.197028e+01
612570	981.32	4	1.173619e+07	5.197028e+01
622570	1006.73	4	1.173619e+07	5.197028e+01
632570	1038.86	4	1.173619e+07	5.197028e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
642570	1071.64	4	1.173619e+07	5.197028e+01
646055	1082.74	5	9.430482e+06	4.022727e+01
656055	1103.54	5	9.430482e+06	4.022727e+01
658539	1106.74	6	9.237190e+06	3.897650e+01
659523	1107.72	7	9.180837e+06	3.860194e+01
663364	1111.31	8	9.170992e+06	3.853602e+01

673364	1127.33	8	9.170992e+06	3.853602e+01
683364	1153.42	8	9.170992e+06	3.853602e+01
693364	1175.60	8	9.170992e+06	3.853602e+01
703364	1200.04	8	9.170992e+06	3.853602e+01
709858	1213.95	9	8.789145e+06	3.586570e+01
719858	1224.35	9	8.789145e+06	3.586570e+01
720504	1225.00	10	8.690316e+06	3.513634e+01
730504	1234.04	10	8.690316e+06	3.513634e+01
740504	1244.19	10	8.690316e+06	3.513634e+01
750504	1266.07	10	8.690316e+06	3.513634e+01
760504	1284.65	10	8.690316e+06	3.513634e+01
770504	1305.44	10	8.690316e+06	3.513634e+01
780504	1320.92	10	8.690316e+06	3.513634e+01
788781	1332.02	11	8.654725e+06	3.486961e+01
798781	1343.30	11	8.654725e+06	3.486961e+01
808781	1354.68	11	8.654725e+06	3.486961e+01
818781	1365.62	11	8.654725e+06	3.486961e+01
828781	1376.52	11	8.654725e+06	3.486961e+01
838781	1387.52	11	8.654725e+06	3.486961e+01
848781	1398.59	11	8.654725e+06	3.486961e+01
858781	1409.59	11	8.654725e+06	3.486961e+01
868781	1420.68	11	8.654725e+06	3.486961e+01
878781	1432.06	11	8.654725e+06	3.486961e+01
888781	1443.19	11	8.654725e+06	3.486961e+01
898781	1453.96	11	8.654725e+06	3.486961e+01
908781	1464.81	11	8.654725e+06	3.486961e+01
918781	1475.56	11	8.654725e+06	3.486961e+01
928781	1486.26	11	8.654725e+06	3.486961e+01
938781	1497.26	11	8.654725e+06	3.486961e+01
948781	1507.81	11	8.654725e+06	3.486961e+01
958781	1519.12	11	8.654725e+06	3.486961e+01
967344 977344	1528.62 1538.40	12 12	8.527904e+06 8.527904e+06	3.390103e+01 3.390103e+01
984769	1545.61	13	8.482340e+06	3.354597e+01
994769	1543.61	13	8.482340e+06	3.354597e+01
1004769	1563.85	13	8.482340e+06	3.354597e+01
1014769	1573.03	13	8.482340e+06	
1024769	1582.15	13	8.482340e+06	
1034769	1591.28	13	8.482340e+06	3.354597e+01
1041249	1597.09	14	8.474704e+06	3.348609e+01
1051249	1605.81	14	8.474704e+06	3.348609e+01
1061249	1614.36	14	8.474704e+06	3.348609e+01
1071249	1629.52	14	8.474704e+06	3.348609e+01
1081249	1648.31	14	8.474704e+06	3.348609e+01
1091249	1668.02	14	8.474704e+06	3.348609e+01
1101249	1687.36	14	8.474704e+06	3.348609e+01
1111249	1702.58	14	8.474704e+06	3.348609e+01
1121249	1716.50	14	8.474704e+06	3.348609e+01
1131249	1729.58	14		3.348609e+01
1141249	1743.71	14		3.348609e+01
1151249	1756.85	14		3.348609e+01
1161249	1769.33	14	8.474704e+06	3.348609e+01
1171249	1781.57	14	8.474704e+06	3.348609e+01
1181249	1793.81	14	8.474704e+06	3.348609e+01
nodes	total	num int	integer	relative

explored	time (s)	solution	fval	gap (%)
1191249	1807.39	14	8.474704e+06	3.348609e+01
1201249	1821.81	14	8.474704e+06	3.348609e+01
1211249	1835.22	14	8.474704e+06	3.348609e+01
1221249	1847.68	14	8.474704e+06	3.348609e+01
1231249	1859.28	14	8.474704e+06	3.348609e+01
1241249	1870.04	14	8.474704e+06	3.348609e+01
1251249	1880.95	14	8.474704e+06	3.348609e+01
1261249	1891.96	14	8.474704e+06	3.348609e+01
1271249	1902.39	14	8.474704e+06	3.348609e+01
1281249	1912.71	14	8.474704e+06	3.348609e+01
1291249	1922.68	14	8.474704e+06	3.348609e+01
1301249	1932.94	14	8.474704e+06	3.348609e+01
1311249	1943.25	14	8.474704e+06	3.348609e+01
1321249	1953.13	14	8.474704e+06	3.348609e+01
1331249	1962.96	14	8.474704e+06	3.348609e+01
1341249	1972.78	14	8.474704e+06	3.348609e+01
1351249	1982.44	14	8.474704e+06	3.348609e+01
1361249	1992.53	14	8.474704e+06	3.348609e+01
1371249	2002.15	14	8.474704e+06	3.348609e+01
1381249	2011.72	14	8.474704e+06	3.348609e+01
1391249	2021.22	14	8.474704e+06	3.348609e+01
1401249	2030.69	14	8.474704e+06	3.348609e+01
1411249	2040.29	14	8.474704e+06	3.348609e+01
1421249	2049.54	14	8.474704e+06	3.348609e+01
1431249	2058.92	14	8.474704e+06	3.348609e+01
1441249	2068.00	14	8.474704e+06	3.348609e+01
1451249	2077.07	14	8.474704e+06	3.348609e+01
1461249	2086.22	14	8.474704e+06	3.348609e+01
1471249	2095.23	14	8.474704e+06	3.348609e+01
1481249	2104.14	14	8.474704e+06	3.348609e+01
1491249	2113.11	14	8.474704e+06	3.348609e+01
1501249	2121.75	14	8.474704e+06	3.348609e+01
1511249	2130.30	14	8.474704e+06	3.348609e+01
1521249	2147.92	14	8.474704e+06	3.348609e+01
1531249	2165.11	14	8.474704e+06	3.348609e+01
1541249	2184.37	14	8.474704e+06	3.348609e+01
1551249	2204.82	14		3.348609e+01
1561249	2219.75	14		3.348609e+01
1571249	2232.73	14	8.474704e+06	3.348609e+01
1581249	2246.79	14	8.474704e+06	3.348609e+01
1591249	2260.56	14	8.474704e+06	3.348609e+01
1601249	2273.78	14	8.474704e+06	3.348609e+01
1611249	2285.92	14	8.474704e+06	3.348609e+01
1621249	2298.44	14	8.474704e+06	3.348609e+01
1631249	2309.82	14	8.474704e+06	3.348609e+01
1641249	2320.72	14		3.348609e+01
1651249	2331.37	14		3.348609e+01
1661249	2341.81	14	8.474704e+06	3.348609e+01
1671249	2352.03	14	8.474704e+06	3.348609e+01
1681249	2362.38	14	8.474704e+06	3.348609e+01
1691249	2372.63	14	8.474704e+06	3.348609e+01
1701249	2383.16	14	8.474704e+06	3.348609e+01
1711249	2393.21	14		3.348609e+01
1721249	2403.51	14	8.474704e+06	3.348609e+01

1731249	2413.45	14	8.474704e+06	3.348609e+01
1741249	2424.09	14	8.474704e+06	3.348609e+01
1751249	2434.93	14	8.474704e+06	3.348609e+01
1761249	2445.47	14	8.474704e+06	3.348609e+01
1771249	2455.38	14	8.474704e+06	3.348609e+01
1781249	2465.79	14	8.474704e+06	3.348609e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
1791249	2475.65	14	8.474704e+06	3.348609e+01
1801249	2485.59	14	8.474704e+06	3.348609e+01
1811249	2495.06	14	8.474704e+06	3.348609e+01
1821249	2504.75	14	8.474704e+06	3.348609e+01
1831249	2514.40	14	8.474704e+06	3.348609e+01
1841249	2523.89	14	8.474704e+06	3.348609e+01
1851249	2533.82	14	8.474704e+06	3.348609e+01
1861249	2543.28	14	8.474704e+06	3.348609e+01
1871249	2552.58	14	8.474704e+06	3.348609e+01
1881249	2561.86	14	8.474704e+06	3.348609e+01
1891249	2571.35	14	8.474704e+06	3.348609e+01
1901249	2580.61	14	8.474704e+06	3.348609e+01
1911249	2589.85	14	8.474704e+06	3.348609e+01
1921249	2598.99	14	8.474704e+06	3.348609e+01
1931249	2607.92	14	8.474704e+06	3.348609e+01
1941249	2616.92	14	8.474704e+06	3.348609e+01
1951249	2625.97	14	8.474704e+06	3.348609e+01
1961249	2634.97	14	8.474704e+06	3.348609e+01
1971249	2644.10	14	8.474704e+06	3.348609e+01
1981249	2652.81	14	8.474704e+06	3.348609e+01
1991249	2661.30	14	8.474704e+06	3.348609e+01
2001249	2670.17	14	8.474704e+06	3.348609e+01
2011249	2678.61	14	8.474704e+06	3.348609e+01
2021249	2694.46	14	8.474704e+06	3.348609e+01
2031249	2711.16	14	8.474704e+06	3.348609e+01
2041249	2728.78	14	8.474704e+06	3.348609e+01
2051249	2748.90	14	8.474704e+06	3.348609e+01
2061249	2767.09	14	8.474704e+06	3.348609e+01
2071249	2783.67	14	8.474704e+06	3.348609e+01
2081249	2798.74	14	8.474704e+06	3.348609e+01
2091249	2813.55	14	8.474704e+06	3.348609e+01
2101249	2828.16	14	8.474704e+06	3.348609e+01
2111249	2841.45	14	8.474704e+06	3.348609e+01
2121249	2855.04	14	8.474704e+06	3.348609e+01
2131249	2866.37	14	8.474704e+06	3.348609e+01
2141249	2877.60	14	8.474704e+06	3.348609e+01
2151249	2888.19	14	8.474704e+06	3.348609e+01
2161249	2898.41	14	8.474704e+06	3.348609e+01
2171249	2908.64	14	8.474704e+06	3.348609e+01
2181249	2918.62	14	8.474704e+06	3.348609e+01
2191249	2928.91	14	8.474704e+06	3.348609e+01
2201249	2938.76	14	8.474704e+06	3.348609e+01
2211249	2948.67	14	8.474704e+06	3.348609e+01
2221249	2958.70	14	8.474704e+06	3.348609e+01
2231249	2968.51	14	8.474704e+06	3.348609e+01
2241249	2978.29	14		3.348609e+01
2251249	2988.24	14	8.474704e+06	3.348609e+01

2261249	2998.01	14	8.474704e+06	3.348609e+01
2271249	3007.79	14	8.474704e+06	3.348609e+01
2281249	3017.32	14	8.474704e+06	3.348609e+01
2291249	3026.97	14	8.474704e+06	3.348609e+01
2301249	3036.35	14	8.474704e+06	3.348609e+01
2311249	3045.68	14	8.474704e+06	3.348609e+01
2321249	3054.98	14	8.474704e+06	3.348609e+01
2331249	3064.26	14	8.474704e+06	3.348609e+01
2341249	3073.65	14	8.474704e+06	3.348609e+01
2351249	3082.99	14	8.474704e+06	3.348609e+01
2361249	3092.37	14	8.474704e+06	3.348609e+01
2371249	3101.69	14	8.474704e+06	3.348609e+01
2381249	3110.60	14	8.474704e+06	3.348609e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
2391249	3119.59	14	8.474704e+06	3.348609e+01
2401249	3128.67	14	8.474704e+06	3.348609e+01
2411249	3137.69	14	8.474704e+06	3.348609e+01
2421249	3146.39	14	8.474704e+06	3.348609e+01
2431249	3154.81	14	8.474704e+06	3.348609e+01
2441249	3171.95	14	8.474704e+06	3.348609e+01
2451249	3188.98	14	8.474704e+06	3.348609e+01
2461249	3207.40	14	8.474704e+06	3.348609e+01
2471249	3225.79	14	8.474704e+06	3.348609e+01
2481249	3245.02	14	8.474704e+06	3.348609e+01
2491249	3261.36	14	8.474704e+06	3.348609e+01
2501249	3276.92	14	8.474704e+06	3.348609e+01
2511249	3291.84	14	8.474704e+06	3.348609e+01
2521249	3308.04	14	8.474704e+06	3.348609e+01
2531249	3324.58	14	8.474704e+06	3.348609e+01
2541249	3339.78	14	8.474704e+06	3.348609e+01
2551249	3353.74	14	8.474704e+06	3.348609e+01
2561249	3367.21	14	8.474704e+06	3.348609e+01
2571249	3381.12	14	8.474704e+06	3.348609e+01
2581249	3393.80	14	8.474704e+06	3.348609e+01
2591249	3406.13	14	8.474704e+06	3.348609e+01
2601249	3417.43	14	8.474704e+06	
2611249	3430.24	14	8.474704e+06	
2621249	3441.61	14	8.474704e+06	3.348609e+01
2631249	3452.70	14	8.474704e+06	3.348609e+01
2641249	3464.35	14	8.474704e+06	3.348609e+01
2651249	3475.35	14	8.474704e+06	3.348609e+01
2661249	3486.14	14	8.474704e+06	3.348609e+01
2671249	3496.46	14	8.474704e+06	3.348609e+01
2681249	3506.68	14	8.474704e+06	3.348609e+01
2691249	3516.19	14		3.348609e+01
2701249	3527.13	14		3.348609e+01
2711249	3538.00	14		3.348609e+01
2721249	3548.51	14	8.474704e+06	3.348609e+01
2731249	3558.33	14	8.474704e+06	3.348609e+01
2741249	3567.99	14	8.474704e+06	3.348609e+01
2751249	3577.23	14	8.474704e+06	3.348609e+01
2761249	3587.06	14	8.474704e+06	3.348609e+01
2771249	3596.52	14	8.474704e+06	
2781249	3605.49	14	8.474704e+06	3.348609e+01

2791249	3618.19	14	8.474704e+06	3.348609e+01
2801249	3637.21	14	8.474704e+06	3.348609e+01
2811249	3654.40	14	8.474704e+06	3.348609e+01
2821249	3673.71	14	8.474704e+06	3.348609e+01
2831249	3692.31	14	8.474704e+06	3.348609e+01
2841249	3709.90	14	8.474704e+06	3.348609e+01
2851249	3726.63	14	8.474704e+06	3.348609e+01
2861249	3742.88	14	8.474704e+06	3.348609e+01
2871249	3759.10	14	8.474704e+06	3.348609e+01
2881249	3775.17	14	8.474704e+06	3.348609e+01
2891249	3791.57	14	8.474704e+06	3.348609e+01
2901249	3807.41	14	8.474704e+06	3.348609e+01
2911249	3823.22	14	8.474704e+06	3.348609e+01
2921249	3838.06	14	8.474704e+06	3.348609e+01
2931249	3850.90	14	8.474704e+06	3.348609e+01
2941249	3863.65	14	8.474704e+06	3.348609e+01
2951249	3875.95	14	8.474704e+06	3.348609e+01
2961249	3887.59	14	8.474704e+06	3.348609e+01
2971249	3899.49	14	8.474704e+06	3.348609e+01
2981249	3910.53	14	8.474704e+06	3.348609e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
2991249	3921.45	14	8.474704e+06	3.348609e+01
3001249	3932.10	14	8.474704e+06	3.348609e+01
3011249	3942.14	14	8.474704e+06	3.348609e+01
3021249	3952.74	14	8.474704e+06	3.348609e+01
3031249	3963.43	14	8.474704e+06	3.348609e+01
3041249	3973.67	14	8.474704e+06	3.348609e+01
3051249	3983.98	14	8.474704e+06	3.348609e+01
3061249	3994.41	14	8.474704e+06	3.348609e+01
3071249	4004.27	14	8.474704e+06	3.348609e+01
3081249	4014.12	14	8.474704e+06	3.348609e+01
3091249	4023.85	14	8.474704e+06	3.348609e+01
3101249	4033.27	14	8.474704e+06	3.348609e+01
3111249	4042.80	14	8.474704e+06	3.348609e+01
3121249	4052.80	14	8.474704e+06	3.348609e+01
3131249	4062.38	14	8.474704e+06	3.348609e+01
3141249	4072.13	14	8.474704e+06	3.348609e+01
3151249	4081.48	14	8.474704e+06	3.348609e+01
3161249	4090.61	14	8.474704e+06	3.348609e+01
3171249	4100.26	14	8.474704e+06	3.348609e+01
3181249	4111.15	14	8.474704e+06	3.348609e+01
3191249	4122.71	14	8.474704e+06	3.348609e+01
3201249	4132.68	14	8.474704e+06	3.348609e+01
3211249	4142.46	14	8.474704e+06	3.348609e+01
3221249	4157.03	14		3.348609e+01
3231249	4175.42	14		3.348609e+01
3241249	4194.10	14		3.348609e+01
3251249	4213.67	14	8.474704e+06	3.348609e+01
3261249	4234.86	14	8.474704e+06	3.348609e+01
3271249	4258.11	14		3.348609e+01
3281249	4278.47	14	8.474704e+06	3.348609e+01
3291249	4297.04	14	8.474704e+06	3.348609e+01
3301249	4314.76	14		
3311249	4331.86	14	8.474704e+06	3.348609e+01

3321249	4347.30	14	8.474704e+06	3.348609e+01
3331249	4363.13	14	8.474704e+06	3.348609e+01
3341249	4377.95	14	8.474704e+06	3.348609e+01
3351249	4391.80	14	8.474704e+06	3.348609e+01
3361249	4405.51	14	8.474704e+06	3.348609e+01
3371249	4418.76	14	8.474704e+06	3.348609e+01
3381249	4431.10	14	8.474704e+06	3.348609e+01
3391249	4443.10	14	8.474704e+06	3.348609e+01
3401249	4454.72	14	8.474704e+06	3.348609e+01
3411249	4466.23	14	8.474704e+06	3.348609e+01
3421249	4476.85	14	8.474704e+06	3.348609e+01
3431249	4486.88	14	8.474704e+06	3.348609e+01
3441249	4496.85	14	8.474704e+06	3.348609e+01
3451249	4506.87	14	8.474704e+06	3.348609e+01
3461249	4516.96	14	8.474704e+06	3.348609e+01
3471249	4526.99	14	8.474704e+06	3.348609e+01
3481249	4536.33	14	8.474704e+06	3.348609e+01
3491249	4545.83	14	8.474704e+06	3.348609e+01
3501249	4555.28	14	8.474704e+06	3.348609e+01
3511249	4564.43	14	8.474704e+06	3.348609e+01
3521249	4573.95	14	8.474704e+06	3.348609e+01
3531249	4591.88	14	8.474704e+06	3.348609e+01
3541249	4612.34	14	8.474704e+06	3.348609e+01
3551249	4632.60	14	8.474704e+06	3.348609e+01
3561249	4653.56	14	8.474704e+06	3.348609e+01
3571249	4673.08	14	8.474704e+06	3.348609e+01
3581249	4691.63	14	8.474704e+06	3.348609e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
3591249	4709.20	14	8.474704e+06	3.348609e+01
3601249	4725.52	14	8.474704e+06	3.348609e+01
3611249	4741.47	14	8.474704e+06	3.348609e+01
3621249	4758.88	14	8.474704e+06	3.348609e+01
3631249	4773.50	14	8.474704e+06	3.348609e+01
3641249	4787.32	14	8.474704e+06	3.348609e+01
3651249	4799.78	14	8.474704e+06	3.348609e+01
3661249	4812.65	14	8.474704e+06	3.348609e+01
3671249	4825.87	14	8.474704e+06	3.348609e+01
3681249	4838.89	14	8.474704e+06	3.348609e+01
3691249	4850.25	14	8.474704e+06	3.348609e+01
3701249	4861.71	14	8.474704e+06	3.348609e+01
3711249	4873.44	14	8.474704e+06	3.348609e+01
3721249	4885.29	14	8.474704e+06	3.348609e+01
3731249	4896.92	14	8.474704e+06	3.348609e+01
3741249	4907.60	14	8.474704e+06	3.348609e+01
3751249	4917.61	14	8.474704e+06	3.348609e+01
3761249	4927.90	14	8.474704e+06	3.348609e+01
3771249	4937.27	14	8.474704e+06	3.348609e+01
3781249	4946.37	14	8.474704e+06	3.348609e+01
3791249	4956.72	14	8.474704e+06	3.348609e+01
3801249	4966.12	14	8.474704e+06	3.348609e+01
3811249	4982.42	14	8.474704e+06	3.348609e+01
3821249	5000.28	14	8.474704e+06	3.348609e+01
3831249	5019.55	14	8.474704e+06	3.348609e+01
3841249	5039.70	14	8.474704e+06	3.348609e+01

3851249	5059.41	14	8.474704e+06	3.348609e+01
3861249	5077.29	14	8.474704e+06	3.348609e+01
3871249	5093.71	14	8.474704e+06	3.348609e+01
3881249	5109.13	14	8.474704e+06	3.348609e+01
3891249	5124.15	14	8.474704e+06	3.348609e+01
3901249	5140.41	14	8.474704e+06	3.348609e+01
3911249	5154.87	14	8.474704e+06	3.348609e+01
3921249	5170.00	14	8.474704e+06	3.348609e+01
3931249	5182.42	14	8.474704e+06	3.348609e+01
3941249	5194.44	14	8.474704e+06	3.348609e+01
3951249	5205.69	14	8.474704e+06	3.348609e+01
3961249	5216.36	14	8.474704e+06	3.348609e+01
3971249	5227.08	14	8.474704e+06	3.348609e+01
3981249	5238.24	14	8.474704e+06	3.348609e+01
3991249	5248.75	14	8.474704e+06	3.348609e+01
4001249	5259.41	14	8.474704e+06	3.348609e+01
4011249	5269.74	14	8.474704e+06	3.348609e+01
4021249	5280.00	14	8.474704e+06	3.348609e+01
4031249	5290.33	14	8.474704e+06	3.348609e+01
4041249	5300.38	14	8.474704e+06	3.348609e+01
4051249	5310.51	14	8.474704e+06	3.348609e+01
4061249	5320.64	14	8.474704e+06	3.348609e+01
4071249	5330.87	14	8.474704e+06	3.348609e+01
4081249	5340.72	14	8.474704e+06	3.348609e+01
4091249	5350.74	14	8.474704e+06	3.348609e+01
4101249	5360.62	14	8.474704e+06	3.348609e+01
4111249	5370.13	14	8.474704e+06	3.348609e+01
4121249	5379.82	14	8.474704e+06	3.348609e+01
4131249	5389.58	14	8.474704e+06	3.348609e+01
4141249	5399.26	14	8.474704e+06	3.348609e+01
4151249	5409.05	14	8.474704e+06	3.348609e+01
4161249	5418.63	14	8.474704e+06	3.348609e+01
4171249	5429.08	14	8.474704e+06	3.348609e+01
4181249	5439.90	14	8.474704e+06	3.348609e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
4191249	5450.10	14	8.474704e+06	3.348609e+01
4201249	5460.00	14	8.474704e+06	3.348609e+01
4211249	5469.82	14	8.474704e+06	3.348609e+01
4221249	5479.49	14	8.474704e+06	3.348609e+01
4231249	5494.46	14	8.474704e+06	3.348609e+01
4241249	5513.70	14	8.474704e+06	3.348609e+01
4251249	5533.36	14	8.474704e+06	3.348609e+01
4261249	5553.90	14	8.474704e+06	3.348609e+01
4271249	5573.94	14	8.474704e+06	3.348609e+01
4281249	5591.23	14	8.474704e+06	3.348609e+01
4291249	5608.13	14	8.474704e+06	3.348609e+01
4301249	5625.45	14	8.474704e+06	3.348609e+01
4311249	5641.60	14	8.474704e+06	3.348609e+01
4321249	5656.08	14	8.474704e+06	3.348609e+01
4331249	5669.09	14	8.474704e+06	3.348609e+01
4341249	5681.81	14	8.474704e+06	3.348609e+01
4351249	5693.62	14	8.474704e+06	3.348609e+01
4361249	5705.23	14	8.474704e+06	3.348609e+01
4371249	5716.24	14	8.474704e+06	3.348609e+01
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4381249	5727.40	14	8.474704e+06	3.348609e+01
4391249	5738.09	14	8.474704e+06	3.348609e+01
4401249	5749.05	14	8.474704e+06	3.348609e+01
4411249	5759.97	14	8.474704e+06	3.348609e+01
4421249	5770.60	14	8.474704e+06	3.348609e+01
4431249	5781.59	14	8.474704e+06	3.348609e+01
4441249	5792.18	14	8.474704e+06	3.348609e+01
4451249	5802.64	14	8.474704e+06	3.348609e+01
4461249	5813.29	14	8.474704e+06	3.348609e+01
4471249	5823.68	14	8.474704e+06	3.348609e+01
4481249	5834.51	14	8.474704e+06	3.348609e+01
4491249	5844.64	14	8.474704e+06	3.348609e+01
4501249	5855.01	14	8.474704e+06	3.348609e+01
4511249	5865.31	14	8.474704e+06	3.348609e+01
4521249	5875.73	14	8.474704e+06	3.348609e+01
4531249	5885.87	14	8.474704e+06	3.348609e+01
4541249	5895.91	14	8.474704e+06	3.348609e+01
4551249	5905.94	14	8.474704e+06	3.348609e+01
4561249	5916.13	14	8.474704e+06	3.348609e+01
4571249	5925.96	14	8.474704e+06	3.348609e+01
4581249	5935.82	14	8.474704e+06	3.348609e+01
4591249	5945.82	14	8.474704e+06	3.348609e+01
4601249	5955.63	14	8.474704e+06	3.348609e+01
4611249	5965.33	14	8.474704e+06	3.348609e+01
4621249	5975.04	14	8.474704e+06	3.348609e+01
4631249	5984.68	14	8.474704e+06	3.348609e+01
4641249	5993.95	14	8.474704e+06	3.348609e+01
4651249	6003.48	14	8.474704e+06	3.348609e+01
4661249	6012.78	14	8.474704e+06	3.348609e+01
4671249	6027.53	14	8.474704e+06	3.348609e+01
4681249	6049.58	14	8.474704e+06	3.348609e+01
4691249	6073.61	14	8.474704e+06	3.348609e+01
4701249	6099.72	14	8.474704e+06	3.348609e+01
4711249	6126.71	14	8.474704e+06	3.348609e+01
4721249	6157.19	14	8.474704e+06	3.348609e+01
4731249	6186.19	14	8.474704e+06	3.348609e+01
4741249	6215.65	14	8.474704e+06	3.348609e+01
4751249	6242.94	14	8.474704e+06	3.348609e+01
4761249	6268.24	14	8.474704e+06	3.348609e+01
4771249	6295.42	14	8.474704e+06	3.348609e+01
4781249	6318.37	14	8.474704e+06	3.348609e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
4791249	6341.19	14	8.474704e+06	3.348609e+01
4801249	6360.69	14	8.474704e+06	3.348609e+01
4811249	6379.70	14	8.474704e+06	3.348609e+01
4821249	6398.07	14	8.474704e+06	3.348609e+01
4831249	6415.44	14		3.348609e+01
4841249	6431.97	14	8.474704e+06	3.348609e+01
4851249	6448.85	14	8.474704e+06	3.348609e+01
4861249	6465.00	14	8.474704e+06	3.348609e+01
4871249	6481.11	14		3.348609e+01
4881249	6496.46	14		3.348609e+01
4891249	6512.28	14	8.474704e+06	3.348609e+01
4901249	6527.57	14	8.474704e+06	3.348609e+01

4911249	6542.35	14	8.474704e+06	3.348609e+01	
4921249	6557.70	14	8.474704e+06	3.348609e+01	
4931249	6573.40	14	8.474704e+06	3.348609e+01	
4941249	6588.08	14	8.474704e+06	3.348609e+01	
4951249	6601.55	14	8.474704e+06	3.348609e+01	
4961249	6613.51	14	8.474704e+06	3.348609e+01	
4971249	6624.56	14	8.474704e+06	3.348609e+01	
4981249	6634.97	14	8.474704e+06	3.348609e+01	
4991249	6645.34	14	8.474704e+06	3.348609e+01	
5001249	6656.01	14	8.474704e+06	3.348609e+01	
5011249	6666.12	14	8.474704e+06	3.348609e+01	
5021249	6675.85	14	8.474704e+06	3.348609e+01	
5031249	6685.96	14	8.474704e+06	3.348609e+01	
5041249	6700.41	14	8.474704e+06	3.348609e+01	
5051249	6721.35	14			
5061249	6741.43	14		3.348609e+01	
5071249	6760.53	14	8.474704e+06	3.348609e+01	
5081249	6778.16	14	8.474704e+06	3.348609e+01	
5091249	6799.36	14	8.474704e+06	3.348609e+01	
5101249	6819.96		8.474704e+06	3.348609e+01	
5111249	6840.34		8.474704e+06	3.348609e+01	
5121249	6860.70		8.474704e+06	3.348609e+01	
5131249	6878.72		8.474704e+06		
5141249	6895.62		8.474704e+06		
5151249	6910.40		8.474704e+06		
5161249	6922.97	14	8.474704e+06		
5171249	6935.48	14	8.474704e+06	3.348609e+01	
5181249	6947.88	14	8.474704e+06	3.348609e+01	
5191249	6959.50	14		3.348609e+01	
5201249	6971.07	14			
5211249	6982.57		8.474704e+06		
5221249	6993.47		8.474704e+06		
5231249 5241249	7004.28		8.474704e+06 8.474704e+06		
	7015.31 7026.15	14	8.474704e+06		
5251249 5261249			8.474704e+06		
5271249	7036.81 7047.87	14 14	8.474704e+06		
5271249	7047.87	14	8.474704e+06		
5291249	7069.43	14	8.474704e+06		
5301249	7080.21	14	8.474704e+06	3.348609e+01	
5311249	7090.82	14	8.474704e+06	3.348609e+01	
5321249	7101.15	14	8.474704e+06	3.348609e+01	
5331249	7111.50	14	8.474704e+06	3.348609e+01	
5341249	7121.65	14	8.474704e+06	3.348609e+01	
5351249	7132.03	14	8.474704e+06	3.348609e+01	
5361249	7142.26		8.474704e+06	3.348609e+01	
5371249	7152.09		8.474704e+06	3.348609e+01	
5381249	7161.95	14	8.474704e+06	3.348609e+01	
nodes	total	num int	integer	relative	
explored	time (s)	solution	fval	gap (%)	
5391249	7172.02	14	8.474704e+06	3.348609e+01	
5401249	7181.84	14	8.474704e+06		
5411249	7193.11	14	8.474704e+06	3.348609e+01	
5421249	7205.06		8.474704e+06		
5431249	7217.70	14	8.474704e+06	3.348609e+01	

5441249	7230.52	14	8.474704e+06	3.348609e+01
5451249	7248.00	14	8.474704e+06	3.348609e+01
5461249	7277.01	14	8.474704e+06	3.348609e+01
5471249	7304.70	14	8.474704e+06	3.348609e+01
5481249	7340.28	14	8.474704e+06	3.348609e+01
5491249	7381.23	14	8.474704e+06	3.348609e+01
5501249	7419.61	14	8.474704e+06	3.348609e+01
5511249	7454.60	14	8.474704e+06	3.348609e+01
5521249	7492.11	14	8.474704e+06	3.348609e+01
5531249	7525.21	14	8.474704e+06	3.348609e+01
5541249	7554.83	14	8.474704e+06	3.348609e+01
5551249	7585.08	14	8.474704e+06	3.348609e+01
5561249	7613.08	14	8.474704e+06	3.348609e+01
5571249	7643.16	14	8.474704e+06	3.348609e+01
5581249	7667.27	14	8.474704e+06	3.348609e+01
5591249	7686.73	14	8.474704e+06	3.348609e+01
5601249	7703.62	14	8.474704e+06	3.348609e+01
5611249	7719.89	14	8.474704e+06	3.348609e+01
5621249	7737.19	14	8.474704e+06	3.348609e+01
5631249	7753.28	14	8.474704e+06	3.348609e+01
5641249	7768.19	14	8.474704e+06	3.348609e+01
5651249	7783.63	14	8.474704e+06	3.348609e+01
5661249	7798.22	14	8.474704e+06	3.348609e+01
5671249	7810.21	14	8.474704e+06	3.348609e+01
5681249	7821.79	14	8.474704e+06	3.348609e+01
5691249	7833.00	14	8.474704e+06	3.348609e+01
5701249	7843.83	14	8.474704e+06	3.348609e+01
5711249	7854.54	14	8.474704e+06	3.348609e+01
5721249	7865.31	14	8.474704e+06	3.348609e+01
5731249	7875.82	14	8.474704e+06	3.348609e+01
5741249	7886.12	14	8.474704e+06	3.348609e+01
5751249 5761249	7896.28 7906.46	14	8.474704e+06	3.348609e+01
5761249	7906.46	14 14	8.474704e+06 8.474704e+06	3.348609e+01 3.348609e+01
5781249	7926.21	14	8.474704e+06	
5791249	7935.98	14	8.474704e+06	3.348609e+01
5801249	7933.98	14	8.474704e+06	
5811249	7956.26	14		3.348609e+01
5821249	7974.81	14	8.474704e+06	3.348609e+01
5831249	7995.39	14	8.474704e+06	3.348609e+01
5841249	8014.26	14	8.474704e+06	3.348609e+01
5851249	8034.59	14	8.474704e+06	3.348609e+01
5861249	8055.08	14	8.474704e+06	3.348609e+01
5871249	8075.48	14	8.474704e+06	3.348609e+01
5881249	8097.92	14	8.474704e+06	3.348609e+01
5891249	8119.01	14	8.474704e+06	3.348609e+01
5901249	8137.56	14		3.348609e+01
5911249	8154.82	14	8.474704e+06	3.348609e+01
5921249	8170.23	14	8.474704e+06	3.348609e+01
5931249	8183.36	14	8.474704e+06	3.348609e+01
5941249	8195.89	14	8.474704e+06	3.348609e+01
5951249	8208.42	14	8.474704e+06	3.348609e+01
5961249	8220.35	14	8.474704e+06	3.348609e+01
5971249	8232.15	14		3.348609e+01
5981249	8244.09	14	8.474704e+06	3.348609e+01

nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
5991249	8255.53	14	8.474704e+06	3.348609e+01
6001249	8267.44	14	8.474704e+06	3.348609e+01
6011249	8279.10	14	8.474704e+06	3.348609e+01
6021249	8290.79	14	8.474704e+06	3.348609e+01
6031249	8302.02	14	8.474704e+06	3.348609e+01
6041249	8313.63	14	8.474704e+06	3.348609e+01
6051249	8324.99	14	8.474704e+06	3.348609e+01
6061249	8336.40	14	8.474704e+06	3.348609e+01
6071249	8348.09	14	8.474704e+06	3.348609e+01
6081249	8359.51	14	8.474704e+06	3.348609e+01
6091249	8371.20	14	8.474704e+06	3.348609e+01
6100751	8382.73	15	8.471595e+06	3.346169e+01
6110751	8394.48	15	8.471595e+06	3.346169e+01
6120751	8406.40	15	8.471595e+06	3.346169e+01
6130751	8418.32	15	8.471595e+06	3.346169e+01
6140751	8429.87	15	8.471595e+06	3.346169e+01
6150751	8441.47	15	8.471595e+06	3.346169e+01
6160751	8452.76	15	8.471595e+06	3.346169e+01
6170751	8464.09	15	8.471595e+06	3.346169e+01
6180751	8475.21	15	8.471595e+06	3.346169e+01
6190751	8486.43	15	8.471595e+06	3.346169e+01
6200751	8497.47	15	8.471595e+06	3.346169e+01
6210751	8508.83	15	8.471595e+06	3.346169e+01
6220751	8520.13	15	8.471595e+06	3.346169e+01
6230751	8530.84	15	8.471595e+06	3.346169e+01
6240751	8541.15	15	8.471595e+06	3.346169e+01
6250751	8551.05	15	8.471595e+06	3.346169e+01
6260751	8561.01	15	8.471595e+06	3.346169e+01
6270751	8570.58	15	8.471595e+06	3.346169e+01
6280751	8580.25	15	8.471595e+06	3.346169e+01
6290751	8594.21	15	8.471595e+06	3.346169e+01 3.346169e+01
6300751	8615.07	15	8.471595e+06	
6310751	8633.65	15		
6320751	8653.10	15	8.471595e+06 8.471595e+06	3.346169e+01
6330751 6340751	8678.18 8704.65	15 15		3.346169e+01 3.346169e+01
6350751	8730.45	15 15		3.346169e+01
6360751	8752.63	15 15		3.346169e+01
6370751	8774.26		8.471595e+06	3.346169e+01
6380751	8792.24	15 15	8.471595e+06	3.346169e+01
6390751	8806.79	15	8.471595e+06	3.346169e+01
6400751	8819.47	15	8.471595e+06	3.346169e+01
6410751	8833.00	15	8.471595e+06	3.346169e+01
6420751	8845.46	15		3.346169e+01
6430751	8857.06	15		3.346169e+01
6440751	8867.86	15		3.346169e+01
6450751	8878.40	15	8.471595e+06	3.346169e+01
6460751	8889.57	15	8.471595e+06	3.346169e+01
6470751	8900.20	15	8.471595e+06	3.346169e+01
6480751	8910.20	15	8.471595e+06	3.346169e+01
6490751	8921.28	15	8.471595e+06	3.346169e+01
6500751	8931.64	15		3.346169e+01
6510751	8942.00	15	8.471595e+06	3.346169e+01
		- 5		

6520751	8952.12	15	8.471595e+06	3.346169e+01	
6530751	8962.17	15	8.471595e+06	3.346169e+01	
6540751	8972.18	15	8.471595e+06	3.346169e+01	
6550751	8981.86	15	8.471595e+06	3.346169e+01	
6560751	8991.73	15	8.471595e+06	3.346169e+01	
6570751	9001.55	15	8.471595e+06	3.346169e+01	
6580751	9011.76	15	8.471595e+06	3.346169e+01	
nodes	total	num int	integer	relative	
explored	time (s)		fval	gap (%)	
	9021.89	15	8.471595e+06	3.346169e+01	
6600751	9031.73	15	8.471595e+06	3.346169e+01	
6610751	9041.48	15		3.346169e+01	
6620751	9051.14	15	8.471595e+06	3.346169e+01	
6630751	9060.74	15		3.346169e+01	
6640751	9070.45	15		3.346169e+01	
6650751	9080.40	15		3.346169e+01	
6660751	9089.83	15		3.346169e+01	
6670751	9098.91	15		3.346169e+01	
6680751	9108.04	15		3.346169e+01	
6690751	9129.46	15		3.346169e+01	
6700751	9149.16	15		3.346169e+01	
6710751	9168.91	15		3.346169e+01	
6720751	9188.99		8.471595e+06		
6730751	9208.72		8.471595e+06		
6740751	9227.50		8.471595e+06		
6750751	9247.14		8.471595e+06		
6760751	9266.17	15		3.346169e+01	
6770751	9285.64	15		3.346169e+01	
6780751 6790751	9305.21 9326.68	15 15		3.346169e+01 3.346169e+01	
6800751	9349.21	15		3.346169e+01	
6810751	9369.75	15		3.346169e+01	
	9391.33		8.471595e+06		
6830751	9410.95	15		3.346169e+01	
6840751		15	8.471595e+06		
6850751	9445.86	15	8.471595e+06		
6860751	9463.59	15		3.346169e+01	
6870751	9481.35	15	8.471595e+06	3.346169e+01	
6880751	9497.96	15	8.471595e+06	3.346169e+01	
6890751	9514.53	15	8.471595e+06	3.346169e+01	
6900751	9531.35	15	8.471595e+06	3.346169e+01	
6910751	9547.94	15	8.471595e+06	3.346169e+01	
6920751	9563.93	15	8.471595e+06	3.346169e+01	
6930751	9579.06	15	8.471595e+06	3.346169e+01	
6940751	9594.56	15	8.471595e+06	3.346169e+01	
6950751	9609.65	15	8.471595e+06	3.346169e+01	
6960751	9624.06	15	8.471595e+06	3.346169e+01	
6970751	9638.54	15	8.471595e+06	3.346169e+01	
6980751	9653.53	15	8.471595e+06	3.346169e+01	
6990751	9669.57	15	8.471595e+06	3.346169e+01	
7000751	9685.40	15	8.471595e+06	3.346169e+01	
7010751	9699.71	15	8.471595e+06	3.346169e+01	
7020751	9715.50	15	8.471595e+06	3.346169e+01	
7030751	9749.61	15	8.471595e+06	3.346169e+01	
7040751	9780.83	15	8.471595e+06	3.346169e+01	

7050751	9811.31	15	8.471595e+06	3.346169e+01
7060751	9841.61	15	8.471595e+06	3.346169e+01
7070751	9874.11	15	8.471595e+06	3.346169e+01
7080751	9904.92	15	8.471595e+06	3.346169e+01
7090751	9933.07	15	8.471595e+06	3.346169e+01
7100751	9956.40	15	8.471595e+06	3.346169e+01
7110751	9978.37	15	8.471595e+06	3.346169e+01
7120751	9999.42	15	8.471595e+06	3.346169e+01
7130751	10018.69	15	8.471595e+06	3.346169e+01
7140751	10035.40	15	8.471595e+06	3.346169e+01
7150751	10048.91	15	8.471595e+06	3.346169e+01
7160751	10061.69	15	8.471595e+06	3.346169e+01
7170751	10074.52	15	8.471595e+06	3.346169e+01
7180751	10086.58	15	8.471595e+06	3.346169e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
7190751	10098.32	15	8.471595e+06	3.346169e+01
7200751	10109.10	15	8.471595e+06	3.346169e+01
7210751	10119.82	15	8.471595e+06	3.346169e+01
7220751	10130.46	15	8.471595e+06	3.346169e+01
7230751	10141.34	15	8.471595e+06	3.346169e+01
7240751	10151.99	15	8.471595e+06	3.346169e+01
7250751	10163.86	15	8.471595e+06	3.346169e+01
7260751	10176.44	15	8.471595e+06	3.346169e+01
7270751	10189.41	15	8.471595e+06	3.346169e+01
7280751	10201.98	15	8.471595e+06	3.346169e+01
7290751	10214.41	15	8.471595e+06	3.346169e+01
7300751	10226.97	15	8.471595e+06	3.346169e+01
7310751	10239.85	15	8.471595e+06	3.346169e+01
7320751	10251.93	15	8.471595e+06	3.346169e+01
7330751	10263.05	15	8.471595e+06	3.346169e+01
7340751	10273.71	15	8.471595e+06	3.346169e+01
7350751	10284.15	15	8.471595e+06	3.346169e+01
7360751	10294.21	15	8.471595e+06	3.346169e+01
7370751	10304.16	15	8.471595e+06	3.346169e+01
7380751	10313.49	15	8.471595e+06	3.346169e+01
7390751	10336.42	15	8.471595e+06	3.346169e+01
7400751	10355.95	15	8.471595e+06	3.346169e+01
7410751	10375.72	15	8.471595e+06	3.346169e+01
7420751	10395.78	15	8.471595e+06	3.346169e+01
7430751	10415.58	15	8.471595e+06	3.346169e+01
7440751	10436.28	15	8.471595e+06	3.346169e+01
7450751	10457.54	15	8.471595e+06	3.346169e+01
7460751	10478.99	15	8.471595e+06	3.346169e+01
7470751	10499.50	15	8.471595e+06	3.346169e+01
7480751	10518.88	15	8.471595e+06	3.346169e+01
7490751	10536.74	15	8.471595e+06	3.346169e+01
7500751	10551.79	15	8.471595e+06	3.346169e+01
7510751	10566.58	15	8.471595e+06	3.346169e+01
7520751	10580.62	15	8.471595e+06	3.346169e+01
7530751	10593.46	15	8.471595e+06	3.346169e+01
7540751	10605.95	15	8.471595e+06	3.346169e+01
7550751	10617.84	15	8.471595e+06	3.346169e+01
7560751	10629.69	15	8.471595e+06	3.346169e+01
7570751	10640.89	15	8.471595e+06	3.346169e+01

7580751	10652.48	15	8.471595e+06	3.346169e+01
7590751	10663.73	15	8.471595e+06	3.346169e+01
7600751	10674.78	15	8.471595e+06	3.346169e+01
7610751	10685.53	15	8.471595e+06	3.346169e+01
7620751	10696.21	15	8.471595e+06	3.346169e+01
7630751	10706.90		8.471595e+06	
7640751	10717.62	15	8.471595e+06	3.346169e+01
7650751	10728.24	15	8.471595e+06	3.346169e+01
7660751	10738.41		8.471595e+06	
7670751	10749.34	15	8.471595e+06	3.346169e+01
7680751	10759.90	15	8.471595e+06	3.346169e+01
7690751	10770.51	15	8.471595e+06	3.346169e+01
7700751	10781.38	15		
7710751	10791.75		8.471595e+06	
7720751	10802.01	15	8.471595e+06	3.346169e+01
7730751	10812.33	15	8.471595e+06	3.346169e+01
7740751	10822.48	15	8.471595e+06	3.346169e+01
7750751	10832.91	15	8.471595e+06	3.346169e+01
7760751	10844.03	15	8.471595e+06	3.346169e+01
7770751	10855.97	15	8.471595e+06	3.346169e+01
7780751	10868.14	15	8.471595e+06	3.346169e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
7790751	10881.17	15	8.471595e+06	3.346169e+01
7800751	10894.43	15	8.471595e+06	3.346169e+01
7810751	10907.26		8.471595e+06	
7820751	10920.61	15	8.471595e+06	3.346169e+01
7830751	10934.56	15	8.471595e+06	3.346169e+01
7840751	10948.52	15	8.471595e+06	3.346169e+01
7850751	10962.18	15	8.471595e+06	3.346169e+01
7860751	10975.47	15	8.471595e+06	3.346169e+01
7870751	10988.93	15	8.471595e+06	3.346169e+01
7880751	11018.86	15	8.471595e+06	3.346169e+01
7890751	11049.90	15	8.471595e+06	3.346169e+01
7900751	11080.35	15	8.471595e+06	3.346169e+01
7910751	11109.69	15	8.471595e+06	3.346169e+01
7920751	11140.43	15	8.471595e+06	3.346169e+01
7930751	11172.07	15	8.471595e+06	3.346169e+01
7940751	11203.55	15	8.471595e+06	3.346169e+01
7950751	11233.85	15	8.471595e+06	3.346169e+01
7960751	11265.36	15	8.471595e+06	3.346169e+01
7970751	11296.13	15	8.471595e+06	3.346169e+01
7980751	11327.63	15	8.471595e+06	3.346169e+01
7990751	11356.67	15	8.471595e+06	3.346169e+01
8000751	11385.19	15	8.471595e+06	3.346169e+01
8010751	11406.77	15	8.471595e+06	3.346169e+01
8020751	11429.88	15	8.471595e+06	3.346169e+01
8030751	11448.52	15	8.471595e+06	3.346169e+01
8040751	11463.90	15	8.471595e+06	3.346169e+01
8050751	11477.27	15	8.471595e+06	3.346169e+01
8060751	11489.70	15	8.471595e+06	3.346169e+01
8070751	11501.81	15	8.471595e+06	3.346169e+01
8080751	11513.15	15	8.471595e+06	3.346169e+01
8090751	11524.36	15	8.471595e+06	3.346169e+01
8100751	11535.80	15	8.471595e+06	3.346169e+01

8110751	11547.06	15	8.471595e+06	3.346169e+01
8120751	11558.68	15	8.471595e+06	3.346169e+01
8130751	11570.08	15	8.471595e+06	3.346169e+01
8140751	11581.17	15	8.471595e+06	3.346169e+01
8150751	11592.02	15	8.471595e+06	3.346169e+01
8160751	11603.04	15	8.471595e+06	3.346169e+01
8170751	11613.89	15	8.471595e+06	3.346169e+01
8180751	11624.50	15	8.471595e+06	3.346169e+01
8190751	11635.19	15	8.471595e+06	3.346169e+01
8200751	11646.13	15	8.471595e+06	3.346169e+01
8210751	11656.58	15	8.471595e+06	3.346169e+01
8220751	11667.01	15	8.471595e+06	3.346169e+01
8230751	11677.65	15	8.471595e+06	3.346169e+01
8240751	11687.96	15	8.471595e+06	3.346169e+01
8250751	11698.09	15	8.471595e+06	3.346169e+01
8260751	11708.26	15	8.471595e+06	3.346169e+01
8270751	11718.22	15	8.471595e+06	3.346169e+01
8280751	11728.37	15	8.471595e+06	3.346169e+01
8290751	11738.44	15	8.471595e+06	3.346169e+01
8300751	11748.11	15	8.471595e+06	3.346169e+01
8310751	11757.58	15	8.471595e+06	3.346169e+01
8320751	11767.31	15	8.471595e+06	3.346169e+01
8330751	11777.07	15	8.471595e+06	3.346169e+01
8340751	11786.28	15	8.471595e+06	3.346169e+01
8350751	11811.44	15	8.471595e+06	3.346169e+01
8360751	11832.56	15	8.471595e+06	3.346169e+01
8370751	11851.26	15	8.471595e+06	3.346169e+01
8380751	11871.95	15	8.471595e+06	3.346169e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
8390751 8400751	11894.11 11919.21	15 15	8.471595e+06 8.471595e+06	3.346169e+01 3.346169e+01
8410751	11919.21	15	8.471595e+06	3.346169e+01
8420751	11944.84	15	8.471595e+06	3.346169e+01
8430751	11909.73	15	8.471595e+06	3.346169e+01
8440751	12015.05	15	8.471595e+06	3.346169e+01
8450751	12013.03	15	8.471595e+06	3.346169e+01
8460751	12052.00	15	8.471595e+06	3.346169e+01
8470751	12072.48	15	8.471595e+06	3.346169e+01
8480751	12072.46	15	8.471595e+06	3.346169e+01
8490751	12100.72	15	8.471595e+06	3.346169e+01
8500751	12113.26	15	8.471595e+06	3.346169e+01
8510751	12125.40	15	8.471595e+06	3.346169e+01
8520751	12136.97	15	8.471595e+06	3.346169e+01
8530751	12148.91	15	8.471595e+06	3.346169e+01
8540751	12160.62	15	8.471595e+06	3.346169e+01
8550751	12172.11	15	8.471595e+06	3.346169e+01
8560751	12183.58	15	8.471595e+06	3.346169e+01
8570751	12194.62	15	8.471595e+06	3.346169e+01
8580751	12205.93	15	8.471595e+06	3.346169e+01
8590751	12216.99	15	8.471595e+06	3.346169e+01
8600751	12227.72	15	8.471595e+06	3.346169e+01
8610751	12238.85	15	8.471595e+06	3.346169e+01
8620751	12249.48	15	8.471595e+06	3.346169e+01
8630751	12260.53	15	8.471595e+06	3.346169e+01

8640751	12271.56	15	8.471595e+06	3.346169e+01
8650751	12282.35	15	8.471595e+06	3.346169e+01
8660751	12293.41	15	8.471595e+06	3.346169e+01
8670751	12304.02	15	8.471595e+06	3.346169e+01
8680751	12315.01	15	8.471595e+06	3.346169e+01
8690751	12326.02	15	8.471595e+06	3.346169e+01
8700751	12336.36	15	8.471595e+06	3.346169e+01
8710751	12346.89	15	8.471595e+06	3.346169e+01
8720751	12357.86	15	8.471595e+06	3.346169e+01
8730751	12368.26	15	8.471595e+06	3.346169e+01
8740751	12378.71	15	8.471595e+06	3.346169e+01
8750751	12389.06	15	8.471595e+06	3.346169e+01
8760751	12399.64	15	8.471595e+06	3.346169e+01
8770751	12409.69	15	8.471595e+06	3.346169e+01
8780751	12419.81	15	8.471595e+06	3.346169e+01
8790751	12429.97	15	8.471595e+06	3.346169e+01
8800751	12440.11	15	8.471595e+06	3.346169e+01
8810751	12450.04	15	8.471595e+06	3.346169e+01
8820751	12460.33	15	8.471595e+06	3.346169e+01
8830751	12470.31	15	8.471595e+06	3.346169e+01
8840751	12479.91	15	8.471595e+06	3.346169e+01
8850751	12489.94	15	8.471595e+06	3.346169e+01
8860751	12499.68	15	8.471595e+06	3.346169e+01
8870751	12509.30	15	8.471595e+06	3.346169e+01
8880751	12518.95	15	8.471595e+06	3.346169e+01
8890751	12528.23	15	8.471595e+06	3.346169e+01
8900751	12537.74	15	8.471595e+06	3.346169e+01
8910751	12546.93	15	8.471595e+06	3.346169e+01
8920751	12568.55	15	8.471595e+06	3.346169e+01
8930751	12586.95	15	8.471595e+06	3.346169e+01
8940751	12606.06	15	8.471595e+06	3.346169e+01
8950751	12626.73	15	8.471595e+06	3.346169e+01
8960751 8970751	12647.73	15	8.471595e+06	3.346169e+01
8970751	12668.26	15	8.471595e+06	3.346169e+01 3.346169e+01
nodes	12691.30	15	8.471595e+06 integer	
explored	total time (s)	num int solution	fval	relative gap (%)
8990751	12714.81	15	8.471595e+06	3.346169e+01
9000751	12714.01	15	8.471595e+06	3.346169e+01
9010751	12760.17	15	8.471595e+06	3.346169e+01
9020751	12781.87	15	8.471595e+06	3.346169e+01
9030751	12803.28	15	8.471595e+06	3.346169e+01
9040751	12822.69	15	8.471595e+06	3.346169e+01
9050751	12839.38	15	8.471595e+06	3.346169e+01
9060751	12854.82	15	8.471595e+06	3.346169e+01
9070751	12870.95	15	8.471595e+06	3.346169e+01
9080751	12887.06	15	8.471595e+06	3.346169e+01
9090751	12902.21	15	8.471595e+06	3.346169e+01
9100751	12917.01	15	8.471595e+06	3.346169e+01
9110751	12931.74	15	8.471595e+06	3.346169e+01
9120751	12946.98	15	8.471595e+06	3.346169e+01
9130751	12962.02	15	8.471595e+06	3.346169e+01
9140751	12976.54	15	8.471595e+06	3.346169e+01
9150751	12991.18	15	8.471595e+06	3.346169e+01
9160751	13005.62	15	8.471595e+06	3.346169e+01

9170751	13019.72	15	8.471595e+06	3.346169e+01
9180751	13033.99	15	8.471595e+06	3.346169e+01
9190751	13048.61	15	8.471595e+06	3.346169e+01
9200751	13070.24	15	8.471595e+06	3.346169e+01
9210751	13105.04	15	8.471595e+06	3.346169e+01
9220751	13138.95	15	8.471595e+06	3.346169e+01
9230751	13169.71	15	8.471595e+06	3.346169e+01
9240751	13200.10	15	8.471595e+06	3.346169e+01
9250751	13229.61	15	8.471595e+06	3.346169e+01
9260751	13258.18	15	8.471595e+06	3.346169e+01
9270751	13283.15	15	8.471595e+06	3.346169e+01
9280751	13305.04	15	8.471595e+06	3.346169e+01
9290751	13327.04	15	8.471595e+06	3.346169e+01
9300751	13346.92	15	8.471595e+06	3.346169e+01
9310751	13367.91	15	8.471595e+06	3.346169e+01
9320751	13386.85	15	8.471595e+06	3.346169e+01
9330751	13404.53	15	8.471595e+06	3.346169e+01
9340751	13421.68	15	8.471595e+06	3.346169e+01
9350751	13437.81	15	8.471595e+06	3.346169e+01
9360751	13455.53	15	8.471595e+06	3.346169e+01
9370751	13471.02	15	8.471595e+06	3.346169e+01
9380751	13487.06	15	8.471595e+06	3.346169e+01
9390751	13501.94	15	8.471595e+06	3.346169e+01
9400751	13517.11	15	8.471595e+06	3.346169e+01
9410751	13531.29	15	8.471595e+06	3.346169e+01
9420751	13543.80	15	8.471595e+06	3.346169e+01
9430751	13555.55	15	8.471595e+06	3.346169e+01
9440751	13566.63	15	8.471595e+06	3.346169e+01
9450751	13576.86	15	8.471595e+06	3.346169e+01
9460751	13586.79	15	8.471595e+06	3.346169e+01
9470751	13596.45	15	8.471595e+06	3.346169e+01
9480751	13606.40	15	8.471595e+06	3.346169e+01
9490751	13620.64	15	8.471595e+06	3.346169e+01
9500751	13640.85	15	8.471595e+06	3.346169e+01
9510751	13661.01	15	8.471595e+06	3.346169e+01
9520751	13680.29	15	8.471595e+06	3.346169e+01
9530751	13699.80	15 15	8.471595e+06	3.346169e+01
9540751	13720.64 13741.11	15 15	8.471595e+06	3.346169e+01 3.346169e+01
9550751 9560751	13741.11	15 15	8.471595e+06 8.471595e+06	3.346169e+01
9570751	13779.95	15 15	8.471595e+06	3.346169e+01
9580751	13779.93	15	8.471595e+06	3.346169e+01
nodes	total	num int	integer	relative
explored	time (s)	solution	fval	gap (%)
9590751	13817.95	15	8.471595e+06	3.346169e+01
9600751	13836.01	15	8.471595e+06	3.346169e+01
9610751	13850.66	15	8.471595e+06	3.346169e+01
9620751	13864.98	15	8.471595e+06	3.346169e+01
9630751	13878.68	15	8.471595e+06	3.346169e+01
9640751	13891.07	15	8.471595e+06	3.346169e+01
9650751	13903.10	15	8.471595e+06	3.346169e+01
9660751	13914.78	15	8.471595e+06	3.346169e+01
9670751	13926.00	15		3.346169e+01
9680751	13936.97	15	8.471595e+06	3.346169e+01
9690751	13948.16	15	8.471595e+06	3.346169e+01
-		•		

```
9700751 13958.65
                     15
                         8.471595e+06 3.346169e+01
9710751 13969.07
                     15 8.471595e+06 3.346169e+01
                         8.471595e+06
9720751 13979.45
                     15
                                       3.346169e+01
9730751 13989.68
                     15 8.471595e+06 3.346169e+01
9740751 14000.26
                     15 8.471595e+06 3.346169e+01
9750751 14010.73
                     15 8.471595e+06 3.346169e+01
9760751 14020.74
                     15
                         8.471595e+06
                                       3.346169e+01
9770751 14030.82
                     15 8.471595e+06 3.346169e+01
9780751 14040.85
                     15 8.471595e+06 3.346169e+01
9790751 14050.67
                     15 8.471595e+06 3.346169e+01
                         8.471595e+06
9800751 14060.70
                     15
                                        3.346169e+01
                     15 8.471595e+06 3.346169e+01
9810751 14070.53
9820751 14080.58
                     15 8.471595e+06 3.346169e+01
9830751 14090.29
                     15 8.471595e+06
                                       3.346169e+01
9840751 14099.92
                     15 8.471595e+06 3.346169e+01
9850751 14109.69
                     15 8.471595e+06 3.346169e+01
9860751 14119.41
                     15 8.471595e+06 3.346169e+01
9870751 14129.00
                     15 8.471595e+06
                                        3.346169e+01
9880751 14138.43
                     15 8.471595e+06 3.346169e+01
9890751 14147.74
                     15 8.471595e+06 3.346169e+01
9900751 14171.75
                     15 8.471595e+06 3.346078e+01
                     15
9910751 14195.19
                         8.471595e+06 3.346078e+01
9920751 14216.87
                     15 8.471595e+06 3.346078e+01
                     15 8.471595e+06 3.346078e+01
9930751 14238.78
9940751 14261.11
                     15 8.471595e+06 3.346078e+01
                         8.471595e+06
9950751 14282.33
                     15
                                        3.346078e+01
9960751 14304.79
                     15 8.471595e+06 3.346078e+01
9970751 14327.61
                     15 8.471595e+06 3.346078e+01
9980751 14349.29
                     15 8.471595e+06 3.346078e+01
9990751 14369.39
                     15
                         8.471595e+06 3.346078e+01
10000751 14390.77
                     15 8.471595e+06 3.346078e+01
```

Solver stopped prematurely. Integer feasible point found.

Intlingrog stopped because it exceeded the time limit, options.MaxTime = 14400 (the selected

value). The intcon variables are integer within tolerance, options.IntegerTolerance $\not =$ 1e-05

(the default value).

```
res =

0.9704
0.0296
0
0
0
0
0
0
0
0
0
0
0
```

0.9112

0.0888

0.5699

0.4301

0.5403

0.4597

0.9704

0.0296

0.5190

0 0.5106

0.4894

0.3117

0 0.6883

1.0000

1.0000

1.0000

1.0000 1.0000 1.0000

.0000

1.0000 1.0000

1.0000 1.0000

.0000

1.0000

0000.1

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

0 0 0

1.0000

0 0

1.0000

1.0000

0.9704 0.0296

0 0 0

0.9112

0.5699

0.5403

0.4597

0.9704

0.4810

0 0.5106

0.4894

0.3117

0.6883

0.0296

0.5190

0.2915

0.4218

exitflag =

>>