

Academic license - for non-commercial use only - expires 2021-04-26  
Using license file /home/zijie/gurobi.lic  
Changed value of parameter timelimit to 300.0  
Prev: inf Min: 0.0 Max: inf Default: inf  
Gurobi Optimizer version 9.1.1 build v9.1.1rc0 (linux64)  
Thread count: 8 physical cores, 8 logical processors, using up to 8 threads  
Optimize a model with 2305 rows, 2352 columns and 11045 nonzeros  
Model fingerprint: 0x72774eba  
Variable types: 0 continuous, 2352 integer (2304 binary)  
Coefficient statistics:  
Matrix range [1e+00, 5e+01]  
Objective range [7e+00, 1e+08]  
Bounds range [1e+00, 5e+01]  
RHS range [1e+00, 5e+01]  
Presolve removed 47 rows and 49 columns  
Presolve time: 0.01s  
Presolved: 2258 rows, 2303 columns, 10998 nonzeros  
Variable types: 0 continuous, 2303 integer (2256 binary)  
Found heuristic solution: objective 7533.0000000

Root relaxation: objective 1.655816e+03, 199 iterations, 0.00 seconds

Nodes		Current Node			Objective Bounds		Gap	Work	
Expl	Unexpl	Obj	Depth	IntInf	Incumbent	BestBd		It/Node	Time
	0	0	1655.81560	0	61	7533.00000	1655.81560	78.0%	- 0s
	0	0	1725.46809	0	77	7533.00000	1725.46809	77.1%	- 0s
H	0	0				1891.0000000	1725.46809	8.75%	- 0s
	0	0	1725.46809	0	73	1891.00000	1725.46809	8.75%	- 0s
	0	0	1737.50355	0	66	1891.00000	1737.50355	8.12%	- 0s
	0	0	1738.17021	0	60	1891.00000	1738.17021	8.08%	- 0s
	0	0	1738.17021	0	69	1891.00000	1738.17021	8.08%	- 0s
	0	0	1740.11348	0	46	1891.00000	1740.11348	7.98%	- 0s
	0	0	1740.11348	0	63	1891.00000	1740.11348	7.98%	- 0s
	0	0	1740.11348	0	71	1891.00000	1740.11348	7.98%	- 0s
	0	0	1740.11348	0	72	1891.00000	1740.11348	7.98%	- 0s
	0	0	1740.11348	0	73	1891.00000	1740.11348	7.98%	- 0s
	0	0	1740.11348	0	79	1891.00000	1740.11348	7.98%	- 0s
	0	0	1741.42222	0	76	1891.00000	1741.42222	7.91%	- 0s
	0	0	1741.42222	0	81	1891.00000	1741.42222	7.91%	- 0s
	0	0	1745.00000	0	67	1891.00000	1745.00000	7.72%	- 0s
	0	0	1745.00000	0	70	1891.00000	1745.00000	7.72%	- 0s
	0	0	1745.00000	0	85	1891.00000	1745.00000	7.72%	- 0s
	0	0	1745.00000	0	85	1891.00000	1745.00000	7.72%	- 0s
	0	0	1745.00000	0	37	1891.00000	1745.00000	7.72%	- 0s
	0	0	1745.00000	0	34	1891.00000	1745.00000	7.72%	- 0s
	0	0	1745.00000	0	36	1891.00000	1745.00000	7.72%	- 0s
	0	0	1745.00000	0	36	1891.00000	1745.00000	7.72%	- 0s
	0	0	1745.00000	0	33	1891.00000	1745.00000	7.72%	- 0s
	0	0	1745.00000	0	33	1891.00000	1745.00000	7.72%	- 0s
H	0	0				1808.0000000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	31	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	62	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	61	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	62	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	73	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	73	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	83	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	82	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	64	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	77	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	41	1808.00000	1745.00000	3.48%	- 0s
	0	0	1745.00000	0	27	1808.00000	1745.00000	3.48%	- 0s
H	0	0				1782.0000000	1745.00000	2.08%	- 0s
	0	0	1745.00000	0	32	1782.00000	1745.00000	2.08%	- 0s
	0	0	1745.00000	0	49	1782.00000	1745.00000	2.08%	- 0s

0	0	1745.00000	0	18	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	73	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	45	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	59	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	63	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	67	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	74	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	57	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	57	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	31	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	19	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	24	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	32	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	19	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	31	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	31	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	31	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	31	1782.00000	1745.00000	2.08%	-	0s
0	0	1745.00000	0	31	1782.00000	1745.00000	2.08%	-	0s
0	2	1750.00000	0	31	1782.00000	1750.00000	1.80%	-	0s
*	153	80	17	1777.0000000	1750.00000	1.52%	10.3	0s	
*	658	241	19	1776.0000000	1752.03673	1.35%	8.6	0s	

Cutting planes:

Learned: 8  
 Gomory: 13  
 Cover: 18  
 Implied bound: 46  
 Clique: 2  
 MIR: 37  
 StrongCG: 1  
 Inf proof: 16  
 Zero half: 5  
 RLT: 21  
 Relax-and-lift: 27

Explored 3411 nodes (31121 simplex iterations) in 1.02 seconds  
 Thread count was 8 (of 8 available processors)

Solution count 6: 1776 1777 1782 ... 7533

Optimal solution found (tolerance 1.00e-04)

Best objective 1.776000000000e+03, best bound 1.776000000000e+03, gap 0.0000%