Tried aggregator 1 time.

MIP Presolve eliminated 962 rows and 3843 columns.

MIP Presolve modified 12600 coefficients.

Reduced MIP has 7128 rows, 11925 columns, and 50129 nonzeros.

Reduced MIP has 11925 binaries, 0 generals, 0 SOSs, and 0 indicators.

Presolve time = 0.06 sec. (53.09 ticks)

Probing fixed 264 vars, tightened 0 bounds.

Probing time = 0.09 sec. (43.29 ticks)

Tried aggregator 1 time.

MIP Presolve eliminated 264 rows and 264 columns.

Reduced MIP has 6864 rows, 11661 columns, and 48578 nonzeros.

Reduced MIP has 11661 binaries, 0 generals, 0 SOSs, and 0 indicators.

Presolve time = 0.05 sec. (49.52 ticks)

Probing time = 0.03 sec. (5.82 ticks)

Clique table members: 29629.

MIP emphasis: balance optimality and feasibility.

MIP search method: dynamic search.

Parallel mode: deterministic, using up to 8 threads.

Root relaxation solution time = 0.73 sec. (611.00 ticks)

Nodes Cuts/

Node Left Objective IInf Best Integer Best Bound ItCnt Gap

0 0 594.0000 1565 594.0000 0

0 0 594.0000 1123 Cuts: 609 3950

0 0 594.0000 1252 Cuts: 1019 9777

0 0 594.0000 1354 Cuts: 838 16613

0 2 594.0000 851 594.0000 27234

Elapsed time = 62.81 sec. (34821.55 ticks, tree = 0.01 MB, solutions = 0)

1 3 594.0000 1186 594.0000 39714

2 4 594.0000 1185 594.0000 46989

3 3 594.0000 1100 594.0000 39084

5 4 594.0000 1187 594.0000 45987

7 9 594.0000 812 594.0000 82318

9 10 594.0000 744 594.0000 86465

11 13 594.0000 738 594.0000 89992

12 11 594.0000 1463 594.0000 88114

16 17 594.0000 747 594.0000 90971

45 43 594.0000 605 594.0000 98599

Elapsed time = 84.03 sec. (48546.30 ticks, tree = 0.02 MB, solutions = 0)

77 19 594.0000 868 594.0000 98769

118 40 594.0000 658 594.0000 114046

145 132 594.0000 685 594.0000 191943

187 87 594.0000 754 594.0000 149404

215 22 594.0000 1309 594.0000 123365

245 184 594.0000 570 594.0000 277747

276 224 594.0000 1243 594.0000 306146

290 216 594.0000 1225 594.0000 290936

301 248 594.0000 1190 594.0000 342078

336 268 594.0000 586 594.0000 364573

Elapsed time = 112.58 sec. (58542.28 ticks, tree = 1.75 MB, solutions = 0)

379 281 594.0000 758 594.0000 377428

395 301 594.0000 680 594.0000 408097

400 220 594.0000 1163 594.0000 293306

420 328 594.0000 612 594.0000 440904

447 367 594.0000 546 594.0000 478081

488 244 594.0000 1232 594.0000 340926

573 389 594.0000 1242 594.0000 483554

634 425 594.0000 985 594.0000 521626

701 608 infeasible 594.0000 728043

759 572 594.0000 781 594.0000 677766

Elapsed time = 146.16 sec. (69788.55 ticks, tree = 4.92 MB, solutions = 0)

787 595 594.0000 1132 594.0000 694586

822 750 infeasible 594.0000 901150

844 747 infeasible 594.0000 919750

864 705 infeasible 594.0000 895543

880 750 infeasible 594.0000 1053250

893 741 594.0000 913 594.0000 1141996

900 752 594.0000 956 594.0000 1091696

910 693 594.0000 929 594.0000 873705

919 747 594.0000 977 594.0000 1074703

930 732 594.0000 1051 594.0000 1165786

Elapsed time = 178.48 sec. (79971.83 ticks, tree = 4.68 MB, solutions = 0)

946 715 594.0000 733 594.0000 1251353

963 709 infeasible 594.0000 1376287

978 740 594.0000 641 594.0000 1494311

990 710 594.0000 860 594.0000 1444226

1013 742 594.0000 919 594.0000 1541386

1039 750 594.0000 753 594.0000 1545585

1061 757 594.0000 684 594.0000 1550812

1077 735 594.0000 965 594.0000 1195084

1092 798 594.0000 603 594.0000 1775802

1133 786 594.0000 599 594.0000 1873382

Elapsed time = 210.39 sec. (89820.38 ticks, tree = 5.13 MB, solutions = 0)

1166 759 594.0000 545 594.0000 1746841

1204 840 infeasible 594.0000 1832615

1214 795 594.0000 642 594.0000 1832666

1274 811 594.0000 596 594.0000 1951959

1359 828 594.0000 559 594.0000 1979222

1403 853 594.0000 604 594.0000 2218712

1440 951 594.0000 513 594.0000 2371484

1480 971 594.0000 737 594.0000 2436752

1547 942 594.0000 590 594.0000 2380335

1628 1013 594.0000 582 594.0000 2479565

Elapsed time = 239.53 sec. (99636.70 ticks, tree = 6.93 MB, solutions = 0)

1688 1136 infeasible 594.0000 2689986

1705 1094 infeasible 594.0000 2661878

1718 1056 infeasible 594.0000 2604312

1736 1205 infeasible 594.0000 2805278

1755 1212 infeasible 594.0000 3037693

1775 1233 infeasible 594.0000 2926306

1792 1223 infeasible 594.0000 3079916

1812 1215 infeasible 594.0000 3181051

1822 1218 infeasible 594.0000 3365830

1842 1222 infeasible 594.0000 3285624

Elapsed time = 271.84 sec. (109792.53 ticks, tree = 7.79 MB, solutions = 0)

1854 1192 594.0000 600 594.0000 3508910

1862 1218 infeasible 594.0000 3311668

1875 1174 infeasible 594.0000 3620025

1884 1185 594.0000 701 594.0000 3653018

1896 1165 594.0000 714 594.0000 3821905

1911 1157 594.0000 719 594.0000 3904075

1930 1159 594.0000 759 594.0000 3968899

1947 1158 594.0000 840 594.0000 3911171

1966 1165 infeasible 594.0000 4081453

1992 1156 infeasible 594.0000 4097313

Elapsed time = 301.50 sec. (119669.69 ticks, tree = 7.67 MB, solutions = 0)

2010 1214 infeasible 594.0000 4255271

2025 1200 infeasible 594.0000 4359733

2043 1199 infeasible 594.0000 4427429

2057 1197 infeasible 594.0000 4395261

2071 1223 infeasible 594.0000 4296240

2082 1211 infeasible 594.0000 4611579

2098 1217 594.0000 513 594.0000 4504083

2111 1209 infeasible 594.0000 4625771

2130 1217 infeasible 594.0000 4528792

2147 1191 infeasible 594.0000 4802648

Elapsed time = 330.19 sec. (129580.95 ticks, tree = 7.80 MB, solutions = 0)

2164 1198 infeasible 594.0000 4940164

2174 1200 infeasible 594.0000 5011847

2182 1186 594.0000 696 594.0000 4843898

2199 1196 594.0000 574 594.0000 4978374

2206 1200 infeasible 594.0000 5055773

2209 1203 594.0000 861 594.0000 4970834

2222 1187 infeasible 594.0000 5194431

2246 1187 594.0000 495 594.0000 5242482

2268 1192 594.0000 431 594.0000 5249708

2343 1189 infeasible 594.0000 5551498

Elapsed time = 369.89 sec. (143259.61 ticks, tree = 7.68 MB, solutions = 0)

2444 1200 594.0000 574 594.0000 5774261

2612 1267 594.0000 620 594.0000 6025312

2833 1336 594.0000 750 594.0000 6380227

3058 1436 infeasible 594.0000 6630468

3154 1557 infeasible 594.0000 6923971

3198 1730 infeasible 594.0000 7302723

3224 1675 infeasible 594.0000 7882897

3259 1654 594.0000 904 594.0000 8281496

3293 1660 594.0000 1048 594.0000 8177477

3312 1616 infeasible 594.0000 8874063

Elapsed time = 487.31 sec. (182233.74 ticks, tree = 9.98 MB, solutions = 0)

3351 1608 infeasible 594.0000 9066072

3369 1614 594.0000 1113 594.0000 8946504

3390 1603 infeasible 594.0000 9364071

3419 1607 infeasible 594.0000 9542346

3447 1615 594.0000 822 594.0000 9482874

3484 1645 594.0000 688 594.0000 9840216

3516 1638 594.0000 871 594.0000 9827672

3541 1637 594.0000 915 594.0000 10066378

3564 1638 infeasible 594.0000 10080587

3609 1616 594.0000 863 594.0000 10339684

Elapsed time = 617.73 sec. (222562.47 ticks, tree = 10.02 MB, solutions = 0)

3662 1633 594.0000 640 594.0000 10499658

3714 1634 594.0000 823 594.0000 10708670

3734 1686 594.0000 650 594.0000 11000143

3792 1695 594.0000 770 594.0000 11124196

3894 1732 594.0000 554 594.0000 11310273

4012 1784 594.0000 703 594.0000 11385680

4119 1746 594.0000 560 594.0000 11341419

4220 1817 infeasible 594.0000 11529043

4484 1986 594.0000 690 594.0000 11603711

4758 2059 594.0000 513 594.0000 11634091

Elapsed time = 746.66 sec. (261021.40 ticks, tree = 13.21 MB, solutions = 0)

4818 2382 infeasible 594.0000 11912357

4838 2378 infeasible 594.0000 11941410

4845 1882 594.0000 593 594.0000 11553234

\* 4846+ 0 594.0000 594.0000 0.00%

4846 0 cutoff 594.0000 594.0000 12561779 0.00%

GUB cover cuts applied: 63

Clique cuts applied: 983

Cover cuts applied: 640

Implied bound cuts applied: 555

Flow cuts applied: 20

Mixed integer rounding cuts applied: 236

Zero-half cuts applied: 98

Gomory fractional cuts applied: 1

Root node processing (before b&c):

Real time = 59.53 sec. (31261.84 ticks)

Parallel b&c, 8 threads:

Real time = 1954.05 sec. (729945.66 ticks)

Sync time (average) = 50.68 sec.

Wait time (average) = 0.01 sec.

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Total (root+branch&cut) = 2013.58 sec. (761207.50 ticks)