

```

diags = Take[ds, All];
mat = {};
EWRules = {};
Do[
  Print[{i, diags[[i]], MaxMemoryUsed[], TimeUsed[]}];
  vect = U[4, diags[[i]] /. EWRules;
  Print["Length[vect] is ", Length[vect]];
  EWS = Union[Cases[vect, _EW, Infinity]];
  If[EWRules === {}, l = 0, l = Length[EWRules[[1]]]];
  Print["l is ", l];
  If[EWRules === {},
    EWRules = Dispatch[Thread[
      EWS → Table[v[[j+1]], {j, Length[EWS]}]
    ]],
    EWRules = Dispatch[Join[EWRules[[1]], Thread[
      EWS → Table[v[[j+1]], {j, Length[EWS]}]
    ]]]];
  l = Length[EWRules[[1]]];
  Print["l is ", l];
  AppendTo[mat,
    Replace[#, c_. * v[[j_]] ⇒ ({i, j} → c)] & /@ (List @@ vect /. EWRules)
  ],
  {i, Length[diags]}
];
mat = SparseArray[Flatten[mat], {Length[diags], l}];
Print["Computing Rank..."];
MatrixRank[mat]
NullSpace[Transpose[mat]]

{1, Diag[ar[[5, 1]], ar[[6, 4]], ar[[7, 3]], ar[[8, 2]], 99 485 800, 26.371]}

Loading 51647382 GL information ...
Loading 51647382 SO information ...
Computing OrderTypes[2, {{1, 2}}]
Computing OrderTypes[3, {{2, 3}}]
Computing OrderTypes[4, {{3, 4}}]
Computing OrderTypes[5, {{2, 3}, {4, 5}}]
Computing OrderTypes[5, {{4, 5}}]
Computing OrderTypes[6, {{1, 2}, {3, 4}, {5, 6}}]
Computing OrderTypes[6, {{3, 4}, {5, 6}}]
Computing OrderTypes[6, {{5, 6}}]
Computing OrderTypes[4, {{1, 2}, {3, 4}}]

Length[vect] is 229 557

l is 0

l is 229 557

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{2, Diag[ar[3, 2], ar[6, 1], ar[7, 5], ar[8, 4]], 213166728, 66.7109}

Loading 32617584 GL information ...

Loading 32617584 SO information ...

Length[vect] is 226821

1 is 229557

1 is 230327

{3, Diag[ar[4, 2], ar[6, 1], ar[7, 5], ar[8, 3]], 285054384, 107.189}

Loading 42617583 GL information ...

Loading 42617583 SO information ...

Length[vect] is 228268

1 is 230327

1 is 230349

{4, Diag[ar[4, 7], ar[5, 2], ar[6, 1], ar[8, 3]], 330733760, 150.849}

Loading 47526183 GL information ...

Loading 47526183 SO information ...

Length[vect] is 236059

1 is 230349

1 is 240161

{5, Diag[ar[5, 2], ar[6, 1], ar[7, 4], ar[8, 3]], 372885296, 197.878}

Loading 52617483 GL information ...

Loading 52617483 SO information ...

Length[vect] is 228923

1 is 240161

1 is 240161

{6, Diag[ar[4, 3], ar[6, 1], ar[7, 5], ar[8, 2]], 413874040, 238.205}

Loading 43617582 GL information ...

Loading 43617582 SO information ...

Length[vect] is 230046

1 is 240161

1 is 240161

{7, Diag[ar[4, 7], ar[5, 3], ar[6, 1], ar[8, 2]], 451471264, 286.935}

Loading 47536182 GL information ...

Loading 47536182 SO information ...

Length[vect] is 235906

1 is 240161

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l is 240 301
{8, Diag[ar[5, 3], ar[6, 1], ar[7, 4], ar[8, 2]], 490 227 488, 330.567}
Loading 53617482 GL information ...
Loading 53617482 SO information ...
Length[vect] is 228 281
l is 240 301
l is 240 301
{9, Diag[ar[4, 5], ar[6, 1], ar[7, 3], ar[8, 2]], 526 834 928, 378.18}
Loading 45617382 GL information ...
Loading 45617382 SO information ...
Length[vect] is 228 122
l is 240 301
l is 240 301
{10, Diag[ar[5, 4], ar[6, 1], ar[7, 3], ar[8, 2]], 564 383 136, 428.153}
Loading 54617382 GL information ...
Loading 54617382 SO information ...
Length[vect] is 229 399
l is 240 301
l is 240 301
{11, Diag[ar[1, 7], ar[4, 2], ar[6, 3], ar[8, 5]], 602 014 496, 472.678}
Loading 17426385 GL information ...
Loading 17426385 SO information ...
Length[vect] is 238 407
l is 240 301
l is 240 307
{12, Diag[ar[1, 7], ar[3, 6], ar[4, 8], ar[5, 2]], 642 351 952, 525.248}
Loading 17364852 GL information ...
Loading 17364852 SO information ...
Length[vect] is 194 313
l is 240 307
l is 240 307
{13, Diag[ar[1, 7], ar[3, 6], ar[5, 2], ar[8, 4]], 666 685 632, 565.527}
Loading 17365284 GL information ...
Loading 17365284 SO information ...
Length[vect] is 230 032
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l is 240 307
l is 240 353
{14, Diag[ar[1, 7], ar[5, 2], ar[6, 3], ar[8, 4]], 710 963 176, 610.127}
Loading 17526384 GL information ...
Loading 17526384 SO information ...
Length[vect] is 238 825
l is 240 353
l is 240 353
{15, Diag[ar[1, 7], ar[3, 8], ar[5, 2], ar[6, 4]], 752 789 656, 661.839}
Loading 17385264 GL information ...
Loading 17385264 SO information ...
Length[vect] is 229 753
l is 240 353
l is 240 353
{16, Diag[ar[1, 7], ar[5, 2], ar[6, 4], ar[8, 3]], 789 209 816, 711.616}
Loading 17526483 GL information ...
Loading 17526483 SO information ...
Length[vect] is 236 472
l is 240 353
l is 240 353
{17, Diag[ar[1, 7], ar[2, 6], ar[5, 3], ar[8, 4]], 827 331 056, 755.18}
Loading 17265384 GL information ...
Loading 17265384 SO information ...
Length[vect] is 228 653
l is 240 353
l is 240 353
{18, Diag[ar[1, 7], ar[4, 3], ar[6, 2], ar[8, 5]], 865 120 576, 803.578}
Loading 17436285 GL information ...
Loading 17436285 SO information ...
Length[vect] is 238 660
l is 240 353
l is 240 353
{19, Diag[ar[1, 7], ar[3, 5], ar[4, 8], ar[6, 2]], 904 926 552, 850.864}
Loading 17354862 GL information ...
Loading 17354862 SO information ...
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Length[vect] is 197458
l is 240353
l is 240353
{20, Diag[ar[1, 7], ar[3, 5], ar[6, 2], ar[8, 4]], 929530480, 891.951}
Loading 17356284 GL information ...
Loading 17356284 SO information ...
Length[vect] is 230597
l is 240353
l is 240353
{21, Diag[ar[1, 7], ar[4, 8], ar[5, 3], ar[6, 2]], 972510664, 937.809}
Loading 17485362 GL information ...
Loading 17485362 SO information ...
Length[vect] is 228696
l is 240353
l is 240353
{22, Diag[ar[1, 7], ar[5, 3], ar[6, 2], ar[8, 4]], 1011105984, 981.965}
Loading 17536284 GL information ...
Loading 17536284 SO information ...
Length[vect] is 238614
l is 240353
l is 240353
{23, Diag[ar[1, 7], ar[3, 8], ar[4, 5], ar[6, 2]], 1050824784, 1029.1}
Loading 17384562 GL information ...
Loading 17384562 SO information ...
Length[vect] is 195759
l is 240353
l is 240353
{24, Diag[ar[1, 7], ar[3, 8], ar[5, 4], ar[6, 2]], 1074447592, 1069.32}
Loading 17385462 GL information ...
Loading 17385462 SO information ...
Length[vect] is 229430
l is 240353
l is 240353
{25, Diag[ar[1, 7], ar[4, 5], ar[6, 2], ar[8, 3]], 1117610376, 1117.46}
Loading 17456283 GL information ...
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Loading 17456283 SO information ...
Length[vect] is 231139
1 is 240353
1 is 240353
{26, Diag[ar[1, 7], ar[5, 4], ar[6, 2], ar[8, 3]], 1156995192, 1163.19}
Loading 17546283 GL information ...
Loading 17546283 SO information ...
Length[vect] is 238709
1 is 240353
1 is 240353
{27, Diag[ar[1, 7], ar[2, 8], ar[5, 3], ar[6, 4]], 1196809088, 1205.53}
Loading 17285364 GL information ...
Loading 17285364 SO information ...
Length[vect] is 215398
1 is 240353
1 is 240353
{28, Diag[ar[1, 7], ar[2, 8], ar[5, 4], ar[6, 3]], 1226480072, 1240.53}
Loading 17285463 GL information ...
Loading 17285463 SO information ...
Length[vect] is 215565
1 is 240353
1 is 240353
{29, Diag[ar[1, 7], ar[3, 5], ar[6, 4], ar[8, 2]], 1260056544, 1275.59}
Loading 17356482 GL information ...
Loading 17356482 SO information ...
Length[vect] is 226851
1 is 240353
1 is 240369
{30, Diag[ar[1, 7], ar[4, 6], ar[5, 3], ar[8, 2]], 1298644816, 1323.31}
Loading 17465382 GL information ...
Loading 17465382 SO information ...
Length[vect] is 219266
1 is 240369
1 is 240369
{31, Diag[ar[1, 7], ar[5, 3], ar[6, 4], ar[8, 2]], 1332977944, 1359.06}
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Loading 17536482 GL information ...
Loading 17536482 SO information ...
Length[vect] is 234919
1 is 240369
1 is 240369
{32, Diag[ar[1, 7], ar[5, 4], ar[6, 3], ar[8, 2]], 1373426728, 1401.26}
Loading 17546382 GL information ...
Loading 17546382 SO information ...
Length[vect] is 234819
1 is 240369
1 is 240369
{33, Diag[ar[3, 2], ar[4, 8], ar[6, 5], ar[7, 1]], 1412157832, 1444.01}
Loading 32486571 GL information ...
Loading 32486571 SO information ...
Length[vect] is 235002
1 is 240369
1 is 240369
{34, Diag[ar[3, 2], ar[6, 5], ar[7, 1], ar[8, 4]], 1450359312, 1492.19}
Loading 32657184 GL information ...
Loading 32657184 SO information ...
Length[vect] is 226285
1 is 240369
1 is 240369
{35, Diag[ar[4, 2], ar[5, 3], ar[6, 8], ar[7, 1]], 1485172280, 1533.9}
Loading 42536871 GL information ...
Loading 42536871 SO information ...
Length[vect] is 234884
1 is 240369
1 is 240369
{36, Diag[ar[4, 2], ar[5, 3], ar[7, 1], ar[8, 6]], 1524639616, 1585.3}
Loading 42537186 GL information ...
Loading 42537186 SO information ...
Length[vect] is 223254
1 is 240369
1 is 240369
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{37, Diag[ar[4, 2], ar[5, 8], ar[6, 3], ar[7, 1]], 1558053928, 1636.06}
Loading 42586371 GL information ...
Loading 42586371 SO information ...
Length[vect] is 237336
l is 240369
l is 240369
{38, Diag[ar[4, 2], ar[6, 3], ar[7, 1], ar[8, 5]], 1600345448, 1686.91}
Loading 42637185 GL information ...
Loading 42637185 SO information ...
Length[vect] is 224657
l is 240369
l is 240369
{39, Diag[ar[2, 5], ar[4, 8], ar[6, 3], ar[7, 1]], 1633694448, 1724.79}
Loading 25486371 GL information ...
Loading 25486371 SO information ...
Length[vect] is 231262
l is 240369
l is 240369
{40, Diag[ar[2, 5], ar[6, 3], ar[7, 1], ar[8, 4]], 1674324976, 1774.19}
Loading 25637184 GL information ...
Loading 25637184 SO information ...
Length[vect] is 237497
l is 240369
l is 240369
{41, Diag[ar[3, 4], ar[5, 2], ar[6, 8], ar[7, 1]], 1713555328, 1825.97}
Loading 34526871 GL information ...
Loading 34526871 SO information ...
Length[vect] is 227204
l is 240369
l is 240369
{42, Diag[ar[3, 4], ar[5, 2], ar[7, 1], ar[8, 6]], 1748345432, 1872.57}
Loading 34527186 GL information ...
Loading 34527186 SO information ...
Length[vect] is 224865
l is 240369
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l is 240 369
{43, Diag[ar[4, 3], ar[5, 2], ar[6, 8], ar[7, 1]], 1783 287 456, 1917.83}
Loading 43526871 GL information ...
Loading 43526871 SO information ...
Length[vect] is 234 712
l is 240 369
l is 240 369
{44, Diag[ar[4, 3], ar[5, 2], ar[7, 1], ar[8, 6]], 1823 936 456, 1970.31}
Loading 43527186 GL information ...
Loading 43527186 SO information ...
Length[vect] is 226 420
l is 240 369
l is 240 369
{45, Diag[ar[3, 6], ar[4, 8], ar[5, 2], ar[7, 1]], 1859 076 768, 2022.85}
Loading 36485271 GL information ...
Loading 36485271 SO information ...
Length[vect] is 230 616
l is 240 369
l is 240 369
{46, Diag[ar[3, 6], ar[5, 2], ar[7, 1], ar[8, 4]], 1899 123 896, 2068.64}
Loading 36527184 GL information ...
Loading 36527184 SO information ...
Length[vect] is 230 394
l is 240 369
l is 240 369
{47, Diag[ar[4, 8], ar[5, 2], ar[6, 3], ar[7, 1]], 1935 752 936, 2110.7}
Loading 48526371 GL information ...
Loading 48526371 SO information ...
Length[vect] is 238 503
l is 240 369
l is 240 369
{48, Diag[ar[5, 2], ar[6, 3], ar[7, 1], ar[8, 4]], 1976 948 432, 2168.94}
Loading 52637184 GL information ...
Loading 52637184 SO information ...
Length[vect] is 230 089

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l is 240 369
l is 240 369
{49, Diag[ar[3, 8], ar[4, 6], ar[5, 2], ar[7, 1]], 2012773808, 2215.24}
Loading 38465271 GL information ...
Loading 38465271 SO information ...
Length[vect] is 230747
l is 240 369
l is 240 369
{50, Diag[ar[3, 8], ar[5, 2], ar[6, 4], ar[7, 1]], 2049928384, 2270.7}
Loading 38526471 GL information ...
Loading 38526471 SO information ...
Length[vect] is 235282
l is 240 369
l is 240 369
{51, Diag[ar[4, 6], ar[5, 2], ar[7, 1], ar[8, 3]], 2087693984, 2313.63}
Loading 46527183 GL information ...
Loading 46527183 SO information ...
Length[vect] is 237253
l is 240 369
l is 240 369
{52, Diag[ar[5, 2], ar[6, 4], ar[7, 1], ar[8, 3]], 2127153480, 2352.94}
Loading 52647183 GL information ...
Loading 52647183 SO information ...
Length[vect] is 228279
l is 240 369
l is 240 369
{53, Diag[ar[2, 6], ar[4, 3], ar[5, 8], ar[7, 1]], 2162194360, 2398.52}
Loading 26435871 GL information ...
Loading 26435871 SO information ...
Length[vect] is 231354
l is 240 369
l is 240 369
{54, Diag[ar[2, 6], ar[4, 3], ar[7, 1], ar[8, 5]], 2201563544, 2451.58}
Loading 26437185 GL information ...
Loading 26437185 SO information ...
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Length[vect] is 238861
l is 240369
l is 240369
{55, Diag[ar[2, 6], ar[3, 5], ar[4, 8], ar[7, 1]], 2241500288, 2494.5}
Loading 26354871 GL information ...
Loading 26354871 SO information ...
Length[vect] is 197976
l is 240369
l is 240369
{56, Diag[ar[2, 6], ar[3, 5], ar[7, 1], ar[8, 4]], 2265977800, 2543.48}
Loading 26357184 GL information ...
Loading 26357184 SO information ...
Length[vect] is 231081
l is 240369
l is 240369
{57, Diag[ar[2, 6], ar[4, 8], ar[5, 3], ar[7, 1]], 2308940688, 2587.44}
Loading 26485371 GL information ...
Loading 26485371 SO information ...
Length[vect] is 229725
l is 240369
l is 240369
{58, Diag[ar[2, 6], ar[5, 3], ar[7, 1], ar[8, 4]], 2347101624, 2627.95}
Loading 26537184 GL information ...
Loading 26537184 SO information ...
Length[vect] is 239276
l is 240369
l is 240369
{59, Diag[ar[2, 6], ar[3, 8], ar[5, 4], ar[7, 1]], 2387208824, 2670.14}
Loading 26385471 GL information ...
Loading 26385471 SO information ...
Length[vect] is 231407
l is 240369
l is 240369
{60, Diag[ar[2, 6], ar[4, 5], ar[7, 1], ar[8, 3]], 2424318128, 2711.37}
Loading 26457183 GL information ...

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Loading 26457183 SO information ...
Length[vect] is 230253
1 is 240369
1 is 240369
{61, Diag[ar[2, 6], ar[5, 4], ar[7, 1], ar[8, 3]], 2460558416, 2756.26}
Loading 26547183 GL information ...
Loading 26547183 SO information ...
Length[vect] is 238683
1 is 240369
1 is 240369
{62, Diag[ar[4, 3], ar[5, 8], ar[6, 2], ar[7, 1]], 2500301800, 2798.39}
Loading 43586271 GL information ...
Loading 43586271 SO information ...
Length[vect] is 238154
1 is 240369
1 is 240369
{63, Diag[ar[4, 3], ar[6, 2], ar[7, 1], ar[8, 5]], 2539289904, 2845.85}
Loading 43627185 GL information ...
Loading 43627185 SO information ...
Length[vect] is 229911
1 is 240369
1 is 240369
{64, Diag[ar[3, 5], ar[4, 8], ar[6, 2], ar[7, 1]], 2574608696, 2891.02}
Loading 35486271 GL information ...
Loading 35486271 SO information ...
Length[vect] is 230777
1 is 240369
1 is 240369
{65, Diag[ar[3, 5], ar[6, 2], ar[7, 1], ar[8, 4]], 2612664368, 2935.9}
Loading 35627184 GL information ...
Loading 35627184 SO information ...
Length[vect] is 238964
1 is 240369
1 is 240369
{66, Diag[ar[4, 8], ar[5, 3], ar[6, 2], ar[7, 1]], 2652371664, 2982.75}
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Loading 48536271 GL information ...
Loading 48536271 SO information ...
Length[vect] is 237548
1 is 240369
1 is 240369
{67, Diag[ar[5, 3], ar[6, 2], ar[7, 1], ar[8, 4]], 2691250664, 3028.15}
Loading 53627184 GL information ...
Loading 53627184 SO information ...
Length[vect] is 229572
1 is 240369
1 is 240369
{68, Diag[ar[3, 8], ar[4, 5], ar[6, 2], ar[7, 1]], 2726523152, 3072.26}
Loading 38456271 GL information ...
Loading 38456271 SO information ...
Length[vect] is 230480
1 is 240369
1 is 240369
{69, Diag[ar[3, 8], ar[5, 4], ar[6, 2], ar[7, 1]], 2764370872, 3116.93}
Loading 38546271 GL information ...
Loading 38546271 SO information ...
Length[vect] is 238260
1 is 240369
1 is 240369
{70, Diag[ar[4, 5], ar[6, 2], ar[7, 1], ar[8, 3]], 2803827240, 3163.78}
Loading 45627183 GL information ...
Loading 45627183 SO information ...
Length[vect] is 228182
1 is 240369
1 is 240369
{71, Diag[ar[5, 4], ar[6, 2], ar[7, 1], ar[8, 3]], 2839162048, 3209.25}
Loading 54627183 GL information ...
Loading 54627183 SO information ...
Length[vect] is 229402
1 is 240369
1 is 240369

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{72, Diag[ar[2, 8], ar[3, 5], ar[6, 4], ar[7, 1]], 2875850040, 3253.91}
Loading 28356471 GL information ...
Loading 28356471 SO information ...
Length[vect] is 219248
l is 240369
l is 240369
{73, Diag[ar[2, 8], ar[4, 6], ar[5, 3], ar[7, 1]], 2908430776, 3289.76}
Loading 28465371 GL information ...
Loading 28465371 SO information ...
Length[vect] is 226838
l is 240369
l is 240369
{74, Diag[ar[2, 8], ar[5, 3], ar[6, 4], ar[7, 1]], 2946151408, 3330.36}
Loading 28536471 GL information ...
Loading 28536471 SO information ...
Length[vect] is 234818
l is 240369
l is 240369
{75, Diag[ar[2, 8], ar[3, 6], ar[4, 5], ar[7, 1]], 2985341432, 3373.18}
Loading 28364571 GL information ...
Loading 28364571 SO information ...
Length[vect] is 194218
l is 240369
l is 240369
{76, Diag[ar[2, 8], ar[3, 6], ar[5, 4], ar[7, 1]], 3009356112, 3421.07}
Loading 28365471 GL information ...
Loading 28365471 SO information ...
Length[vect] is 227279
l is 240369
l is 240369
{77, Diag[ar[2, 8], ar[4, 5], ar[6, 3], ar[7, 1]], 3051180696, 3456.83}
Loading 28456371 GL information ...
Loading 28456371 SO information ...
Length[vect] is 227174
l is 240369
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l is 240 369
{78, Diag[ar[2, 8], ar[5, 4], ar[6, 3], ar[7, 1]], 3 089 082 272, 3493.}
Loading 28546371 GL information ...
Loading 28546371 SO information ...
Length[vect] is 234 805
l is 240 369
l is 240 369
{79, Diag[ar[3, 5], ar[6, 4], ar[7, 1], ar[8, 2]], 3 127 964 880, 3535.85}
Loading 35647182 GL information ...
Loading 35647182 SO information ...
Length[vect] is 235 111
l is 240 369
l is 240 369
{80, Diag[ar[4, 6], ar[5, 3], ar[7, 1], ar[8, 2]], 3 166 528 376, 3579.1}
Loading 46537182 GL information ...
Loading 46537182 SO information ...
Length[vect] is 235 111
l is 240 369
l is 240 369
{81, Diag[ar[5, 3], ar[6, 4], ar[7, 1], ar[8, 2]], 3 204 513 032, 3622.44}
Loading 53647182 GL information ...
Loading 53647182 SO information ...
Length[vect] is 224 402
l is 240 369
l is 240 369
{82, Diag[ar[3, 6], ar[4, 5], ar[7, 1], ar[8, 2]], 3 237 755 744, 3659.53}
Loading 36457182 GL information ...
Loading 36457182 SO information ...
Length[vect] is 217 521
l is 240 369
l is 240 369
{83, Diag[ar[3, 6], ar[5, 4], ar[7, 1], ar[8, 2]], 3 271 910 856, 3695.26}
Loading 36547182 GL information ...
Loading 36547182 SO information ...
Length[vect] is 223 134

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l is 240 369
l is 240 369
{84, Diag[ar[4, 5], ar[6, 3], ar[7, 1], ar[8, 2]], 3 308 115 224, 3733.58}
Loading 45637182 GL information ...
Loading 45637182 SO information ...
Length[vect] is 224 314
l is 240 369
l is 240 369
{85, Diag[ar[5, 4], ar[6, 3], ar[7, 1], ar[8, 2]], 3 344 733 424, 3772.09}
Loading 54637182 GL information ...
Loading 54637182 SO information ...
Length[vect] is 224 838
l is 240 369
l is 240 369
{86, Diag[ar[1, 8], ar[5, 2], ar[6, 4], ar[7, 3]], 3 380 839 616, 3809.49}
Loading 18526473 GL information ...
Loading 18526473 SO information ...
Length[vect] is 227 110
l is 240 369
l is 240 369
{87, Diag[ar[1, 8], ar[2, 6], ar[4, 7], ar[5, 3]], 3 419 672 272, 3854.5}
Loading 18264753 GL information ...
Loading 18264753 SO information ...
Length[vect] is 193 698
l is 240 369
l is 240 369
{88, Diag[ar[1, 8], ar[2, 6], ar[5, 3], ar[7, 4]], 3 444 532 504, 3904.36}
Loading 18265374 GL information ...
Loading 18265374 SO information ...
Length[vect] is 228 885
l is 240 369
l is 240 369
{89, Diag[ar[1, 8], ar[4, 3], ar[5, 7], ar[6, 2]], 3 488 141 912, 3947.63}
Loading 18435762 GL information ...
Loading 18435762 SO information ...
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Length[vect] is 226423
l is 240369
l is 240369
{90, Diag[ar[1, 8], ar[4, 3], ar[6, 2], ar[7, 5]], 3524721280, 4000.03}
Loading 18436275 GL information ...
Loading 18436275 SO information ...
Length[vect] is 224986
l is 240369
l is 240369
{91, Diag[ar[1, 8], ar[3, 5], ar[4, 7], ar[6, 2]], 3559803320, 4053.38}
Loading 18354762 GL information ...
Loading 18354762 SO information ...
Length[vect] is 196491
l is 240369
l is 240369
{92, Diag[ar[1, 8], ar[3, 5], ar[6, 2], ar[7, 4]], 3587436600, 4088.56}
Loading 18356274 GL information ...
Loading 18356274 SO information ...
Length[vect] is 230742
l is 240369
l is 240369
{93, Diag[ar[1, 8], ar[4, 7], ar[5, 3], ar[6, 2]], 3630950616, 4128.32}
Loading 18475362 GL information ...
Loading 18475362 SO information ...
Length[vect] is 227738
l is 240369
l is 240369
{94, Diag[ar[1, 8], ar[5, 3], ar[6, 2], ar[7, 4]], 3668782440, 4172.05}
Loading 18536274 GL information ...
Loading 18536274 SO information ...
Length[vect] is 227147
l is 240369
l is 240369
{95, Diag[ar[1, 8], ar[3, 7], ar[4, 5], ar[6, 2]], 3704381320, 4217.22}
Loading 18374562 GL information ...
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Loading 18374562 SO information ...
Length[vect] is 194155
l is 240369
l is 240369
{96, Diag[ar[1, 8], ar[3, 7], ar[5, 4], ar[6, 2]], 3728520512, 4249.21}
Loading 18375462 GL information ...
Loading 18375462 SO information ...
Length[vect] is 226283
l is 240369
l is 240369
{97, Diag[ar[1, 8], ar[4, 5], ar[6, 2], ar[7, 3]], 3770448528, 4289.02}
Loading 18456273 GL information ...
Loading 18456273 SO information ...
Length[vect] is 215815
l is 240369
l is 240369
{98, Diag[ar[1, 8], ar[5, 4], ar[6, 2], ar[7, 3]], 3804009464, 4325.05}
Loading 18546273 GL information ...
Loading 18546273 SO information ...
Length[vect] is 223766
l is 240369
l is 240369
{99, Diag[ar[1, 8], ar[2, 7], ar[3, 5], ar[6, 4]], 3840614504, 4363.74}
Loading 18273564 GL information ...
Loading 18273564 SO information ...
Length[vect] is 189481
l is 240369
l is 240369
{100, Diag[ar[1, 8], ar[2, 7], ar[4, 6], ar[5, 3]], 3865057696, 4398.67}
Loading 18274653 GL information ...
Loading 18274653 SO information ...
Length[vect] is 189481
l is 240369
l is 240369
{101, Diag[ar[1, 8], ar[2, 7], ar[5, 3], ar[6, 4]], 3893974600, 4433.43}
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Loading 18275364 GL information ...
Loading 18275364 SO information ...
Length[vect] is 215086
1 is 240369
1 is 240369
{102, Diag[ar[1, 8], ar[2, 7], ar[3, 6], ar[4, 5]], 3934340880, 4467.68}
Loading 18273645 GL information ...
Loading 18273645 SO information ...
Length[vect] is 91205
1 is 240369
1 is 240369
{103, Diag[ar[1, 8], ar[2, 7], ar[3, 6], ar[5, 4]], 3934340880, 4483.77}
Loading 18273654 GL information ...
Loading 18273654 SO information ...
Length[vect] is 181614
1 is 240369
1 is 240369
{104, Diag[ar[1, 8], ar[2, 7], ar[4, 5], ar[6, 3]], 3965786040, 4513.4}
Loading 18274563 GL information ...
Loading 18274563 SO information ...
Length[vect] is 185776
1 is 240369
1 is 240369
{105, Diag[ar[1, 8], ar[2, 7], ar[5, 4], ar[6, 3]], 4001288888, 4543.11}
Loading 18275463 GL information ...
Loading 18275463 SO information ...
Length[vect] is 215293
1 is 240369
1 is 240369
{106, Diag[ar[1, 8], ar[3, 5], ar[6, 4], ar[7, 2]], 4042895944, 4576.95}
Loading 18356472 GL information ...
Loading 18356472 SO information ...
Length[vect] is 227421
1 is 240369
1 is 240369

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{107, Diag[ar[1, 8], ar[4, 6], ar[5, 3], ar[7, 2]], 4 083 358 328, 4612.71}

Loading 18465372 GL information ...

Loading 18465372 SO information ...

Length[vect] is 227 421

l is 240 369

l is 240 369

{108, Diag[ar[1, 8], ar[5, 3], ar[6, 4], ar[7, 2]], 4 120 397 752, 4649.22}

Loading 18536472 GL information ...

Loading 18536472 SO information ...

Length[vect] is 223 897

l is 240 369

l is 240 369

{109, Diag[ar[1, 8], ar[3, 6], ar[4, 5], ar[7, 2]], 4 154 938 096, 4687.69}

Loading 18364572 GL information ...

Loading 18364572 SO information ...

Length[vect] is 186 332

l is 240 369

l is 240 369

{110, Diag[ar[1, 8], ar[3, 6], ar[5, 4], ar[7, 2]], 4 177 434 288, 4718.83}

Loading 18365472 GL information ...

Loading 18365472 SO information ...

Length[vect] is 215 795

l is 240 369

l is 240 369

{111, Diag[ar[1, 8], ar[4, 5], ar[6, 3], ar[7, 2]], 4 216 883 272, 4753.65}

Loading 18456372 GL information ...

Loading 18456372 SO information ...

Length[vect] is 217 434

l is 240 369

l is 240 369

{112, Diag[ar[1, 8], ar[5, 4], ar[6, 3], ar[7, 2]], 4 253 526 432, 4789.12}

Loading 18546372 GL information ...

Loading 18546372 SO information ...

Length[vect] is 223 778

l is 240 369

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l is 240 369
{113, Diag[ar[5, 2], ar[6, 4], ar[7, 3], ar[8, 1]], 4 290 267 128, 4825.39}
Loading 52647381 GL information ...
Loading 52647381 SO information ...
Length[vect] is 229 519
l is 240 369
l is 240 369
{114, Diag[ar[2, 6], ar[4, 7], ar[5, 3], ar[8, 1]], 4 329 972 056, 4870.08}
Loading 26475381 GL information ...
Loading 26475381 SO information ...
Length[vect] is 231 097
l is 240 369
l is 240 369
{115, Diag[ar[2, 6], ar[5, 3], ar[7, 4], ar[8, 1]], 4 368 879 352, 4930.71}
Loading 26537481 GL information ...
Loading 26537481 SO information ...
Length[vect] is 239 236
l is 240 369
l is 240 369
{116, Diag[ar[4, 3], ar[5, 7], ar[6, 2], ar[8, 1]], 4 408 866 472, 4973.38}
Loading 43576281 GL information ...
Loading 43576281 SO information ...
Length[vect] is 235 519
l is 240 369
l is 240 369
{117, Diag[ar[4, 3], ar[6, 2], ar[7, 5], ar[8, 1]], 4 445 425 952, 5033.4}
Loading 43627581 GL information ...
Loading 43627581 SO information ...
Length[vect] is 223 233
l is 240 369
l is 240 369
{118, Diag[ar[3, 5], ar[4, 7], ar[6, 2], ar[8, 1]], 4 478 267 456, 5073.91}
Loading 35476281 GL information ...
Loading 35476281 SO information ...
Length[vect] is 231 390
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l is 240 369
l is 240 369
{119, Diag[ar[3, 5], ar[6, 2], ar[7, 4], ar[8, 1]], 4 519 340 152, 5118.84}
Loading 35627481 GL information ...
Loading 35627481 SO information ...
Length[vect] is 238 654
l is 240 369
l is 240 369
{120, Diag[ar[4, 7], ar[5, 3], ar[6, 2], ar[8, 1]], 4 559 293 216, 5161.69}
Loading 47536281 GL information ...
Loading 47536281 SO information ...
Length[vect] is 238 746
l is 240 369
l is 240 369
{121, Diag[ar[5, 3], ar[6, 2], ar[7, 4], ar[8, 1]], 4 598 148 960, 5210.03}
Loading 53627481 GL information ...
Loading 53627481 SO information ...
Length[vect] is 229 553
l is 240 369
l is 240 369
{122, Diag[ar[3, 7], ar[4, 5], ar[6, 2], ar[8, 1]], 4 633 204 648, 5255.77}
Loading 37456281 GL information ...
Loading 37456281 SO information ...
Length[vect] is 227 954
l is 240 369
l is 240 369
{123, Diag[ar[3, 7], ar[5, 4], ar[6, 2], ar[8, 1]], 4 668 877 080, 5297.81}
Loading 37546281 GL information ...
Loading 37546281 SO information ...
Length[vect] is 236 138
l is 240 369
l is 240 369
{124, Diag[ar[4, 5], ar[6, 2], ar[7, 3], ar[8, 1]], 4 707 982 384, 5337.1}
Loading 45627381 GL information ...
Loading 45627381 SO information ...
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Length[vect] is 224382
1 is 240369
1 is 240369
{125, Diag[ar[5, 4], ar[6, 2], ar[7, 3], ar[8, 1]], 4741981128, 5376.13}
Loading 54627381 GL information ...
Loading 54627381 SO information ...
Length[vect] is 224770
1 is 240369
1 is 240369
{126, Diag[ar[2, 7], ar[3, 5], ar[6, 4], ar[8, 1]], 4777481000, 5414.51}
Loading 27356481 GL information ...
Loading 27356481 SO information ...
Length[vect] is 227613
1 is 240369
1 is 240369
{127, Diag[ar[2, 7], ar[4, 6], ar[5, 3], ar[8, 1]], 4815713824, 5452.07}
Loading 27465381 GL information ...
Loading 27465381 SO information ...
Length[vect] is 227613
1 is 240369
1 is 240369
{128, Diag[ar[2, 7], ar[5, 3], ar[6, 4], ar[8, 1]], 4852324888, 5489.43}
Loading 27536481 GL information ...
Loading 27536481 SO information ...
Length[vect] is 224125
1 is 240369
1 is 240369
{129, Diag[ar[2, 7], ar[3, 6], ar[4, 5], ar[8, 1]], 4886968232, 5528.52}
Loading 27364581 GL information ...
Loading 27364581 SO information ...
Length[vect] is 186423
1 is 240369
1 is 240369
{130, Diag[ar[2, 7], ar[3, 6], ar[5, 4], ar[8, 1]], 4909582632, 5559.77}
Loading 27365481 GL information ...

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Loading 27365481 SO information ...
Length[vect] is 217581
1 is 240369
1 is 240369
{131, Diag[ar[2, 7], ar[4, 5], ar[6, 3], ar[8, 1]], 4949677672, 5595.19}
Loading 27456381 GL information ...
Loading 27456381 SO information ...
Length[vect] is 217567
1 is 240369
1 is 240369
{132, Diag[ar[2, 7], ar[5, 4], ar[6, 3], ar[8, 1]], 4986041640, 5631.49}
Loading 27546381 GL information ...
Loading 27546381 SO information ...
Length[vect] is 224306
1 is 240369
1 is 240369
{133, Diag[ar[3, 5], ar[6, 4], ar[7, 2], ar[8, 1]], 5022851056, 5670.03}
Loading 35647281 GL information ...
Loading 35647281 SO information ...
Length[vect] is 236017
1 is 240369
1 is 240369
{134, Diag[ar[4, 6], ar[5, 3], ar[7, 2], ar[8, 1]], 5064065288, 5713.3}
Loading 46537281 GL information ...
Loading 46537281 SO information ...
Length[vect] is 236017
1 is 240369
1 is 240369
{135, Diag[ar[5, 3], ar[6, 4], ar[7, 2], ar[8, 1]], 5102690192, 5756.01}
Loading 53647281 GL information ...
Loading 53647281 SO information ...
Length[vect] is 224697
1 is 240369
1 is 240369
{136, Diag[ar[3, 6], ar[4, 5], ar[7, 2], ar[8, 1]], 5135986456, 5792.6}
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Loading 36457281 GL information ...
Loading 36457281 SO information ...
Length[vect] is 217513
1 is 240369
1 is 240369
{137, Diag[ar[3, 6], ar[5, 4], ar[7, 2], ar[8, 1]], 5169953192, 5827.38}
Loading 36547281 GL information ...
Loading 36547281 SO information ...
Length[vect] is 224328
1 is 240369
1 is 240369
{138, Diag[ar[4, 5], ar[6, 3], ar[7, 2], ar[8, 1]], 5206415072, 5864.92}
Loading 45637281 GL information ...
Loading 45637281 SO information ...
Length[vect] is 222965
1 is 240369
1 is 240369
{139, Diag[ar[5, 4], ar[6, 3], ar[7, 2], ar[8, 1]], 5242460000, 5900.61}
Loading 54637281 GL information ...
Loading 54637281 SO information ...
Length[vect] is 221530
1 is 240369
1 is 240369
{140, Diag[ar[1, 2], ar[3, 4], ar[5, 6], ar[7, 8]], 5277101640, 5934.87}
Loading 12345678 GL information ...
Loading 12345678 SO information ...
Length[vect] is 95791
1 is 240369
1 is 240369
{141, Diag[ar[1, 2], ar[3, 8], ar[5, 4], ar[7, 6]], 5277101640, 5974.43}
Loading 12385476 GL information ...
Loading 12385476 SO information ...
Length[vect] is 213912
1 is 240369
1 is 240369
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{142, Diag[ar[2, 1], ar[3, 7], ar[6, 4], ar[8, 5]], 5 320 818 120, 6034.62}

Loading 21376485 GL information ...

Loading 21376485 SO information ...

Length[vect] is 238 594

1 is 240 369

1 is 240 369

{143, Diag[ar[1, 3], ar[2, 6], ar[7, 5], ar[8, 4]], 5 371 335 392, 6101.86}

Loading 13267584 GL information ...

Loading 13267584 SO information ...

Length[vect] is 229 195

1 is 240 369

1 is 240 369

{144, Diag[ar[3, 1], ar[5, 2], ar[6, 4], ar[8, 7]], 5 409 038 896, 6173.61}

Loading 31526487 GL information ...

Loading 31526487 SO information ...

Length[vect] is 228 448

1 is 240 369

1 is 240 369

{145, Diag[ar[1, 4], ar[3, 2], ar[7, 5], ar[8, 6]], 5 444 625 456, 6243.44}

Loading 14327586 GL information ...

Loading 14327586 SO information ...

Length[vect] is 223 443

1 is 240 369

1 is 240 369

{146, Diag[ar[1, 4], ar[6, 5], ar[7, 3], ar[8, 2]], 5 478 815 000, 6308.04}

Loading 14657382 GL information ...

Loading 14657382 SO information ...

Length[vect] is 238 066

1 is 240 369

1 is 240 369

{147, Diag[ar[2, 8], ar[4, 1], ar[5, 3], ar[7, 6]], 5 522 082 920, 6379.72}

Loading 28415376 GL information ...

Loading 28415376 SO information ...

Length[vect] is 238 611

1 is 240 369

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l is 240 369
{148, Diag[ar[1, 5], ar[2, 7], ar[6, 3], ar[8, 4]], 5 562 004 000, 6449.17}
Loading 15276384 GL information ...
Loading 15276384 SO information ...
Length[vect] is 227 056
l is 240 369
l is 240 369
{149, Diag[ar[2, 6], ar[5, 1], ar[7, 4], ar[8, 3]], 5 596 374 048, 6518.41}
Loading 26517483 GL information ...
Loading 26517483 SO information ...
Length[vect] is 237 385
l is 240 369
l is 240 369
{150, Diag[ar[1, 6], ar[4, 2], ar[5, 3], ar[8, 7]], 5 636 513 520, 6566.98}
Loading 16425387 GL information ...
Loading 16425387 SO information ...
Length[vect] is 223 629
l is 240 369
l is 240 369
{151, Diag[ar[3, 2], ar[6, 1], ar[7, 4], ar[8, 5]], 5 669 398 880, 6606.18}
Loading 32617485 GL information ...
Loading 32617485 SO information ...
Length[vect] is 230 018
l is 240 369
l is 240 369
{152, Diag[ar[5, 4], ar[6, 1], ar[7, 3], ar[8, 2]], 5 708 505 552, 6652.21}
Loading 54617382 GL information ...
Loading 54617382 SO information ...
Length[vect] is 229 399
l is 240 369
l is 240 369
{153, Diag[ar[1, 7], ar[2, 8], ar[4, 3], ar[6, 5]], 5 745 533 448, 6698.09}
Loading 17284365 GL information ...
Loading 17284365 SO information ...
Length[vect] is 213 641

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