

```

SetDirectory["C:/drorbn/AcademicPensieve/Projects/Arrow_Diagrams_and_gl(N)"];
<< "Arrow_Diagrams_and_gl(N).m"
base = 10;

arbit = {Diagrams[4 ar][[1]]};
For[i = 1, i < 17, i++,
  arbit = Append[arbit, Diagrams[4 ar][[i * 100]]];

arbit

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

ds = Join[Take[BasisAArrow[4], All], arbit];

Length[ds]

156

SaveUGL[diag_Diag] := Module[
  {fname},
  fname = StringJoin[
    "data/UGLFor",
    ToString[FromDigits[Cases[diag, _Integer, Infinity], base]],
    ".m"
  ];
  Print["Saving ", fname, " ..."];
  Put[{diag, UGLnBiAlg[diag]}, fname];
]

For[index = 2, index ≤ Length[ds], index++,
  Print[index, " ", ds[[index]]];
  Print[Timing[SaveUGL[ds[[index]]]]];
];

2 Diag[ar[3, 2], ar[6, 1], ar[7, 5], ar[8, 4]]
Saving data/UGLFor32617584.m ...
Computing OrderTypes[3, {{2, 3}}]
Computing OrderTypes[4, {{3, 4}}]
Computing OrderTypes[5, {{4, 5}}]
Computing OrderTypes[5, {{2, 3}, {4, 5}}]
Computing OrderTypes[6, {{3, 4}, {5, 6}}]
Computing OrderTypes[6, {{5, 6}}]
Computing OrderTypes[7, {{2, 3}, {4, 5}, {6, 7}}]
Computing OrderTypes[7, {{4, 5}, {6, 7}}]

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Computing OrderTypes [7, {{6, 7}}]
Computing OrderTypes [8, {{1, 2}, {3, 4}, {5, 6}, {7, 8}}]
Computing OrderTypes [8, {{3, 4}, {5, 6}, {7, 8}}]
Computing OrderTypes [8, {{5, 6}, {7, 8}}]
Computing OrderTypes [8, {{7, 8}}]
{1181.89, Null}
3 Diag[ar[4, 2], ar[6, 1], ar[7, 5], ar[8, 3]]
Saving data/UGLFor42617583.m ...
{1269.99, Null}
4 Diag[ar[4, 7], ar[5, 2], ar[6, 1], ar[8, 3]]
Saving data/UGLFor47526183.m ...
{695.297, Null}
5 Diag[ar[5, 2], ar[6, 1], ar[7, 4], ar[8, 3]]
Saving data/UGLFor52617483.m ...
{1274.44, Null}
6 Diag[ar[4, 3], ar[6, 1], ar[7, 5], ar[8, 2]]
Saving data/UGLFor43617582.m ...
{1177.31, Null}
7 Diag[ar[4, 7], ar[5, 3], ar[6, 1], ar[8, 2]]
Saving data/UGLFor47536182.m ...
{719.234, Null}
8 Diag[ar[5, 3], ar[6, 1], ar[7, 4], ar[8, 2]]
Saving data/UGLFor53617482.m ...
{1321.72, Null}
9 Diag[ar[4, 5], ar[6, 1], ar[7, 3], ar[8, 2]]
Saving data/UGLFor45617382.m ...
{733.703, Null}
10 Diag[ar[5, 4], ar[6, 1], ar[7, 3], ar[8, 2]]
Saving data/UGLFor54617382.m ...
{1208.83, Null}
11 Diag[ar[1, 7], ar[4, 2], ar[6, 3], ar[8, 5]]
Saving data/UGLFor17426385.m ...
{631.062, Null}
12 Diag[ar[1, 7], ar[3, 6], ar[4, 8], ar[5, 2]]
Saving data/UGLFor17364852.m ...
```

```
{175.5, Null}
13 Diag[ar[1, 7], ar[3, 6], ar[5, 2], ar[8, 4]]
Saving data/UGLFor17365284.m ...
{352.844, Null}
14 Diag[ar[1, 7], ar[5, 2], ar[6, 3], ar[8, 4]]
Saving data/UGLFor17526384.m ...
{641.266, Null}
15 Diag[ar[1, 7], ar[3, 8], ar[5, 2], ar[6, 4]]
Saving data/UGLFor17385264.m ...
{318.734, Null}
16 Diag[ar[1, 7], ar[5, 2], ar[6, 4], ar[8, 3]]
Saving data/UGLFor17526483.m ...
{666.125, Null}
17 Diag[ar[1, 7], ar[2, 6], ar[5, 3], ar[8, 4]]
Saving data/UGLFor17265384.m ...
{335.828, Null}
18 Diag[ar[1, 7], ar[4, 3], ar[6, 2], ar[8, 5]]
Saving data/UGLFor17436285.m ...
{583.203, Null}
19 Diag[ar[1, 7], ar[3, 5], ar[4, 8], ar[6, 2]]
Saving data/UGLFor17354862.m ...
{191.031, Null}
20 Diag[ar[1, 7], ar[3, 5], ar[6, 2], ar[8, 4]]
Saving data/UGLFor17356284.m ...
{384.797, Null}
21 Diag[ar[1, 7], ar[4, 8], ar[5, 3], ar[6, 2]]
Saving data/UGLFor17485362.m ...
{322.36, Null}
22 Diag[ar[1, 7], ar[5, 3], ar[6, 2], ar[8, 4]]
Saving data/UGLFor17536284.m ...
{651.39, Null}
23 Diag[ar[1, 7], ar[3, 8], ar[4, 5], ar[6, 2]]
Saving data/UGLFor17384562.m ...
{166.375, Null}
24 Diag[ar[1, 7], ar[3, 8], ar[5, 4], ar[6, 2]]
```

```
Saving data/UGLFor17385462.m ...
{297.969, Null}
25 Diag[ar[1, 7], ar[4, 5], ar[6, 2], ar[8, 3]]
Saving data/UGLFor17456283.m ...
{359.344, Null}
26 Diag[ar[1, 7], ar[5, 4], ar[6, 2], ar[8, 3]]
Saving data/UGLFor17546283.m ...
{615.39, Null}
27 Diag[ar[1, 7], ar[2, 8], ar[5, 3], ar[6, 4]]
Saving data/UGLFor17285364.m ...
{270.454, Null}
28 Diag[ar[1, 7], ar[2, 8], ar[5, 4], ar[6, 3]]
Saving data/UGLFor17285463.m ...
{269.687, Null}
29 Diag[ar[1, 7], ar[3, 5], ar[6, 4], ar[8, 2]]
Saving data/UGLFor17356482.m ...
{384.156, Null}
30 Diag[ar[1, 7], ar[4, 6], ar[5, 3], ar[8, 2]]
Saving data/UGLFor17465382.m ...
{378.235, Null}
31 Diag[ar[1, 7], ar[5, 3], ar[6, 4], ar[8, 2]]
Saving data/UGLFor17536482.m ...
{602.937, Null}
32 Diag[ar[1, 7], ar[5, 4], ar[6, 3], ar[8, 2]]
Saving data/UGLFor17546382.m ...
{600.391, Null}
33 Diag[ar[3, 2], ar[4, 8], ar[6, 5], ar[7, 1]]
Saving data/UGLFor32486571.m ...
{521.25, Null}
34 Diag[ar[3, 2], ar[6, 5], ar[7, 1], ar[8, 4]]
Saving data/UGLFor32657184.m ...
{1045.86, Null}
35 Diag[ar[4, 2], ar[5, 3], ar[6, 8], ar[7, 1]]
Saving data/UGLFor42536871.m ...
{562.594, Null}
```

```
36 Diag[ar[4, 2], ar[5, 3], ar[7, 1], ar[8, 6]]
Saving data/UGLFor42537186.m ...
{1085.23, Null}
37 Diag[ar[4, 2], ar[5, 8], ar[6, 3], ar[7, 1]]
Saving data/UGLFor42586371.m ...
{640.391, Null}
38 Diag[ar[4, 2], ar[6, 3], ar[7, 1], ar[8, 5]]
Saving data/UGLFor42637185.m ...
{1267.23, Null}
39 Diag[ar[2, 5], ar[4, 8], ar[6, 3], ar[7, 1]]
Saving data/UGLFor25486371.m ...
{377.375, Null}
40 Diag[ar[2, 5], ar[6, 3], ar[7, 1], ar[8, 4]]
Saving data/UGLFor25637184.m ...
{760.047, Null}
41 Diag[ar[3, 4], ar[5, 2], ar[6, 8], ar[7, 1]]
Saving data/UGLFor34526871.m ...
{357.235, Null}
42 Diag[ar[3, 4], ar[5, 2], ar[7, 1], ar[8, 6]]
Saving data/UGLFor34527186.m ...
{662.109, Null}
43 Diag[ar[4, 3], ar[5, 2], ar[6, 8], ar[7, 1]]
Saving data/UGLFor43526871.m ...
{566.797, Null}
44 Diag[ar[4, 3], ar[5, 2], ar[7, 1], ar[8, 6]]
Saving data/UGLFor43527186.m ...
{1087.31, Null}
45 Diag[ar[3, 6], ar[4, 8], ar[5, 2], ar[7, 1]]
Saving data/UGLFor36485271.m ...
{362.969, Null}
46 Diag[ar[3, 6], ar[5, 2], ar[7, 1], ar[8, 4]]
Saving data/UGLFor36527184.m ...
{737.141, Null}
47 Diag[ar[4, 8], ar[5, 2], ar[6, 3], ar[7, 1]]
Saving data/UGLFor48526371.m ...
```

```
{623.39, Null}
48 Diag[ar[5, 2], ar[6, 3], ar[7, 1], ar[8, 4]]
Saving data/UGLFor52637184.m ...
{1272.66, Null}
49 Diag[ar[3, 8], ar[4, 6], ar[5, 2], ar[7, 1]]
Saving data/UGLFor38465271.m ...
{354.859, Null}
50 Diag[ar[3, 8], ar[5, 2], ar[6, 4], ar[7, 1]]
Saving data/UGLFor38526471.m ...
{623.672, Null}
51 Diag[ar[4, 6], ar[5, 2], ar[7, 1], ar[8, 3]]
Saving data/UGLFor46527183.m ...
{782.187, Null}
52 Diag[ar[5, 2], ar[6, 4], ar[7, 1], ar[8, 3]]
Saving data/UGLFor52647183.m ...
{1304.62, Null}
53 Diag[ar[2, 6], ar[4, 3], ar[5, 8], ar[7, 1]]
Saving data/UGLFor26435871.m ...
{323.782, Null}
54 Diag[ar[2, 6], ar[4, 3], ar[7, 1], ar[8, 5]]
Saving data/UGLFor26437185.m ...
{636.984, Null}
55 Diag[ar[2, 6], ar[3, 5], ar[4, 8], ar[7, 1]]
Saving data/UGLFor26354871.m ...
{197.125, Null}
56 Diag[ar[2, 6], ar[3, 5], ar[7, 1], ar[8, 4]]
Saving data/UGLFor26357184.m ...
{397.969, Null}
57 Diag[ar[2, 6], ar[4, 8], ar[5, 3], ar[7, 1]]
Saving data/UGLFor26485371.m ...
{351.984, Null}
58 Diag[ar[2, 6], ar[5, 3], ar[7, 1], ar[8, 4]]
Saving data/UGLFor26537184.m ...
{716.75, Null}
59 Diag[ar[2, 6], ar[3, 8], ar[5, 4], ar[7, 1]]
```

```
Saving data/UGLFor26385471.m ...
{321.922, Null}
60 Diag[ar[2, 6], ar[4, 5], ar[7, 1], ar[8, 3]]
Saving data/UGLFor26457183.m ...
{382.828, Null}
61 Diag[ar[2, 6], ar[5, 4], ar[7, 1], ar[8, 3]]
Saving data/UGLFor26547183.m ...
{665.938, Null}
62 Diag[ar[4, 3], ar[5, 8], ar[6, 2], ar[7, 1]]
Saving data/UGLFor43586271.m ...
{573.875, Null}
63 Diag[ar[4, 3], ar[6, 2], ar[7, 1], ar[8, 5]]
Saving data/UGLFor43627185.m ...
{1138.2, Null}
64 Diag[ar[3, 5], ar[4, 8], ar[6, 2], ar[7, 1]]
Saving data/UGLFor35486271.m ...
{378.015, Null}
65 Diag[ar[3, 5], ar[6, 2], ar[7, 1], ar[8, 4]]
Saving data/UGLFor35627184.m ...
{776.203, Null}
66 Diag[ar[4, 8], ar[5, 3], ar[6, 2], ar[7, 1]]
Saving data/UGLFor48536271.m ...
{614.344, Null}
67 Diag[ar[5, 3], ar[6, 2], ar[7, 1], ar[8, 4]]
Saving data/UGLFor53627184.m ...
{1276.06, Null}
68 Diag[ar[3, 8], ar[4, 5], ar[6, 2], ar[7, 1]]
Saving data/UGLFor38456271.m ...
{331.703, Null}
69 Diag[ar[3, 8], ar[5, 4], ar[6, 2], ar[7, 1]]
Saving data/UGLFor38546271.m ...
{568.062, Null}
70 Diag[ar[4, 5], ar[6, 2], ar[7, 1], ar[8, 3]]
Saving data/UGLFor45627183.m ...
{720.11, Null}
```

71 Diag[ar[5, 4], ar[6, 2], ar[7, 1], ar[8, 3]]

Saving data/UGLFor54627183.m ...

{1190.19, Null}

72 Diag[ar[2, 8], ar[3, 5], ar[6, 4], ar[7, 1]]

Saving data/UGLFor28356471.m ...

{358., Null}

73 Diag[ar[2, 8], ar[4, 6], ar[5, 3], ar[7, 1]]

Saving data/UGLFor28465371.m ...

{351.391, Null}

74 Diag[ar[2, 8], ar[5, 3], ar[6, 4], ar[7, 1]]

Saving data/UGLFor28536471.m ...

{555.406, Null}

75 Diag[ar[2, 8], ar[3, 6], ar[4, 5], ar[7, 1]]

Saving data/UGLFor28364571.m ...

{166.859, Null}

76 Diag[ar[2, 8], ar[3, 6], ar[5, 4], ar[7, 1]]

Saving data/UGLFor28365471.m ...

{318.75, Null}

77 Diag[ar[2, 8], ar[4, 5], ar[6, 3], ar[7, 1]]

Saving data/UGLFor28456371.m ...

{331.141, Null}

78 Diag[ar[2, 8], ar[5, 4], ar[6, 3], ar[7, 1]]

Saving data/UGLFor28546371.m ...

{585.672, Null}

79 Diag[ar[3, 5], ar[6, 4], ar[7, 1], ar[8, 2]]

Saving data/UGLFor35647182.m ...

{784.547, Null}

80 Diag[ar[4, 6], ar[5, 3], ar[7, 1], ar[8, 2]]

Saving data/UGLFor46537182.m ...

{762.125, Null}

81 Diag[ar[5, 3], ar[6, 4], ar[7, 1], ar[8, 2]]

Saving data/UGLFor53647182.m ...

{1149.25, Null}

82 Diag[ar[3, 6], ar[4, 5], ar[7, 1], ar[8, 2]]

Saving data/UGLFor36457182.m ...


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{370.5, Null}
83 Diag[ar[3, 6], ar[5, 4], ar[7, 1], ar[8, 2]]
Saving data/UGLFor36547182.m ...
{681.5, Null}
84 Diag[ar[4, 5], ar[6, 3], ar[7, 1], ar[8, 2]]
Saving data/UGLFor45637182.m ...
{712.265, Null}
85 Diag[ar[5, 4], ar[6, 3], ar[7, 1], ar[8, 2]]
Saving data/UGLFor54637182.m ...
{1150.58, Null}
86 Diag[ar[1, 8], ar[5, 2], ar[6, 4], ar[7, 3]]
Saving data/UGLFor18526473.m ...
{611.078, Null}
87 Diag[ar[1, 8], ar[2, 6], ar[4, 7], ar[5, 3]]
Saving data/UGLFor18264753.m ...
{171.453, Null}
88 Diag[ar[1, 8], ar[2, 6], ar[5, 3], ar[7, 4]]
Saving data/UGLFor18265374.m ...
{325.765, Null}
89 Diag[ar[1, 8], ar[4, 3], ar[5, 7], ar[6, 2]]
Saving data/UGLFor18435762.m ...
{289.329, Null}
90 Diag[ar[1, 8], ar[4, 3], ar[6, 2], ar[7, 5]]
Saving data/UGLFor18436275.m ...
{555.64, Null}
91 Diag[ar[1, 8], ar[3, 5], ar[4, 7], ar[6, 2]]
Saving data/UGLFor18354762.m ...
{186.766, Null}
92 Diag[ar[1, 8], ar[3, 5], ar[6, 2], ar[7, 4]]
Saving data/UGLFor18356274.m ...
{367.328, Null}
93 Diag[ar[1, 8], ar[4, 7], ar[5, 3], ar[6, 2]]
Saving data/UGLFor18475362.m ...
{313.031, Null}
94 Diag[ar[1, 8], ar[5, 3], ar[6, 2], ar[7, 4]]
```

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Saving data/UGLFor18536274.m ...
{606.563, Null}
95 Diag[ar[1, 8], ar[3, 7], ar[4, 5], ar[6, 2]]
Saving data/UGLFor18374562.m ...
{160.718, Null}
96 Diag[ar[1, 8], ar[3, 7], ar[5, 4], ar[6, 2]]
Saving data/UGLFor18375462.m ...
{288.032, Null}
97 Diag[ar[1, 8], ar[4, 5], ar[6, 2], ar[7, 3]]
Saving data/UGLFor18456273.m ...
{323.625, Null}
98 Diag[ar[1, 8], ar[5, 4], ar[6, 2], ar[7, 3]]
Saving data/UGLFor18546273.m ...
{558.968, Null}
99 Diag[ar[1, 8], ar[2, 7], ar[3, 5], ar[6, 4]]
Saving data/UGLFor18273564.m ...
{167.954, Null}
100 Diag[ar[1, 8], ar[2, 7], ar[4, 6], ar[5, 3]]
Saving data/UGLFor18274653.m ...
{161.531, Null}
101 Diag[ar[1, 8], ar[2, 7], ar[5, 3], ar[6, 4]]
Saving data/UGLFor18275364.m ...
{263.672, Null}
102 Diag[ar[1, 8], ar[2, 7], ar[3, 6], ar[4, 5]]
Saving data/UGLFor18273645.m ...
{75.078, Null}
103 Diag[ar[1, 8], ar[2, 7], ar[3, 6], ar[5, 4]]
Saving data/UGLFor18273654.m ...
{141.109, Null}
104 Diag[ar[1, 8], ar[2, 7], ar[4, 5], ar[6, 3]]
Saving data/UGLFor18274563.m ...
{151., Null}
105 Diag[ar[1, 8], ar[2, 7], ar[5, 4], ar[6, 3]]
Saving data/UGLFor18275463.m ...
{262.031, Null}
```

```
106 Diag[ar[1, 8], ar[3, 5], ar[6, 4], ar[7, 2]]
Saving data/UGLFor18356472.m ...
{356.594, Null}
107 Diag[ar[1, 8], ar[4, 6], ar[5, 3], ar[7, 2]]
Saving data/UGLFor18465372.m ...
{348.922, Null}
108 Diag[ar[1, 8], ar[5, 3], ar[6, 4], ar[7, 2]]
Saving data/UGLFor18536472.m ...
{549.641, Null}
109 Diag[ar[1, 8], ar[3, 6], ar[4, 5], ar[7, 2]]
Saving data/UGLFor18364572.m ...
{165.36, Null}
110 Diag[ar[1, 8], ar[3, 6], ar[5, 4], ar[7, 2]]
Saving data/UGLFor18365472.m ...
{312.312, Null}
111 Diag[ar[1, 8], ar[4, 5], ar[6, 3], ar[7, 2]]
Saving data/UGLFor18456372.m ...
{319.75, Null}
112 Diag[ar[1, 8], ar[5, 4], ar[6, 3], ar[7, 2]]
Saving data/UGLFor18546372.m ...
{540.375, Null}
113 Diag[ar[5, 2], ar[6, 4], ar[7, 3], ar[8, 1]]
Saving data/UGLFor52647381.m ...
{1274.39, Null}
114 Diag[ar[2, 6], ar[4, 7], ar[5, 3], ar[8, 1]]
Saving data/UGLFor26475381.m ...
{388.594, Null}
115 Diag[ar[2, 6], ar[5, 3], ar[7, 4], ar[8, 1]]
Saving data/UGLFor26537481.m ...
{705.687, Null}
116 Diag[ar[4, 3], ar[5, 7], ar[6, 2], ar[8, 1]]
Saving data/UGLFor43576281.m ...
{684.078, Null}
117 Diag[ar[4, 3], ar[6, 2], ar[7, 5], ar[8, 1]]
Saving data/UGLFor43627581.m ...
```

```
{1195.48, Null}
118 Diag[ar[3, 5], ar[4, 7], ar[6, 2], ar[8, 1]]
Saving data/UGLFor35476281.m ...
{438.593, Null}
119 Diag[ar[3, 5], ar[6, 2], ar[7, 4], ar[8, 1]]
Saving data/UGLFor35627481.m ...
{813.688, Null}
120 Diag[ar[4, 7], ar[5, 3], ar[6, 2], ar[8, 1]]
Saving data/UGLFor47536281.m ...
{724.906, Null}
121 Diag[ar[5, 3], ar[6, 2], ar[7, 4], ar[8, 1]]
Saving data/UGLFor53627481.m ...
{1316.34, Null}
122 Diag[ar[3, 7], ar[4, 5], ar[6, 2], ar[8, 1]]
Saving data/UGLFor37456281.m ...
{383.094, Null}
123 Diag[ar[3, 7], ar[5, 4], ar[6, 2], ar[8, 1]]
Saving data/UGLFor37546281.m ...
{665.14, Null}
124 Diag[ar[4, 5], ar[6, 2], ar[7, 3], ar[8, 1]]
Saving data/UGLFor45627381.m ...
{734.813, Null}
125 Diag[ar[5, 4], ar[6, 2], ar[7, 3], ar[8, 1]]
Saving data/UGLFor54627381.m ...
{1215.48, Null}
126 Diag[ar[2, 7], ar[3, 5], ar[6, 4], ar[8, 1]]
Saving data/UGLFor27356481.m ...
{403.609, Null}
127 Diag[ar[2, 7], ar[4, 6], ar[5, 3], ar[8, 1]]
Saving data/UGLFor27465381.m ...
{396.235, Null}
128 Diag[ar[2, 7], ar[5, 3], ar[6, 4], ar[8, 1]]
Saving data/UGLFor27536481.m ...
{626.015, Null}
129 Diag[ar[2, 7], ar[3, 6], ar[4, 5], ar[8, 1]]
```

```
Saving data/UGLFor27364581.m ...
{178.047, Null}
130 Diag[ar[2, 7], ar[3, 6], ar[5, 4], ar[8, 1]]
Saving data/UGLFor27365481.m ...
{340.938, Null}
131 Diag[ar[2, 7], ar[4, 5], ar[6, 3], ar[8, 1]]
Saving data/UGLFor27456381.m ...
{367.14, Null}
132 Diag[ar[2, 7], ar[5, 4], ar[6, 3], ar[8, 1]]
Saving data/UGLFor27546381.m ...
{624.797, Null}
133 Diag[ar[3, 5], ar[6, 4], ar[7, 2], ar[8, 1]]
Saving data/UGLFor35647281.m ...
{792.36, Null}
134 Diag[ar[4, 6], ar[5, 3], ar[7, 2], ar[8, 1]]
Saving data/UGLFor46537281.m ...
{785.781, Null}
135 Diag[ar[5, 3], ar[6, 4], ar[7, 2], ar[8, 1]]
Saving data/UGLFor53647281.m ...
{1182.92, Null}
136 Diag[ar[3, 6], ar[4, 5], ar[7, 2], ar[8, 1]]
Saving data/UGLFor36457281.m ...
{381.344, Null}
137 Diag[ar[3, 6], ar[5, 4], ar[7, 2], ar[8, 1]]
Saving data/UGLFor36547281.m ...
{700.39, Null}
138 Diag[ar[4, 5], ar[6, 3], ar[7, 2], ar[8, 1]]
Saving data/UGLFor45637281.m ...
{716.563, Null}
139 Diag[ar[5, 4], ar[6, 3], ar[7, 2], ar[8, 1]]
Saving data/UGLFor54637281.m ...
{1156.61, Null}
140 Diag[ar[1, 2], ar[3, 4], ar[5, 6], ar[7, 8]]
Saving data/UGLFor12345678.m ...
{84.078, Null}
```

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141 Diag[ar[1, 2], ar[3, 8], ar[5, 4], ar[7, 6]]
Saving data/UGLFor12385476.m ...
{285.047, Null}
142 Diag[ar[2, 1], ar[3, 7], ar[6, 4], ar[8, 5]]
Saving data/UGLFor21376485.m ...
{565.797, Null}
143 Diag[ar[1, 3], ar[2, 6], ar[7, 5], ar[8, 4]]
Saving data/UGLFor13267584.m ...
{409.984, Null}
144 Diag[ar[3, 1], ar[5, 2], ar[6, 4], ar[8, 7]]
Saving data/UGLFor31526487.m ...
{1018.64, Null}
145 Diag[ar[1, 4], ar[3, 2], ar[7, 5], ar[8, 6]]
Saving data/UGLFor14327586.m ...
{540.594, Null}
146 Diag[ar[1, 4], ar[6, 5], ar[7, 3], ar[8, 2]]
Saving data/UGLFor14657382.m ...
{682.422, Null}
147 Diag[ar[2, 8], ar[4, 1], ar[5, 3], ar[7, 6]]
Saving data/UGLFor28415376.m ...
{542.625, Null}
148 Diag[ar[1, 5], ar[2, 7], ar[6, 3], ar[8, 4]]
Saving data/UGLFor15276384.m ...
{378.218, Null}
149 Diag[ar[2, 6], ar[5, 1], ar[7, 4], ar[8, 3]]
Saving data/UGLFor26517483.m ...
{696.532, Null}
150 Diag[ar[1, 6], ar[4, 2], ar[5, 3], ar[8, 7]]
Saving data/UGLFor16425387.m ...
{503.828, Null}
151 Diag[ar[3, 2], ar[6, 1], ar[7, 4], ar[8, 5]]
Saving data/UGLFor32617485.m ...
{1118.56, Null}
152 Diag[ar[5, 4], ar[6, 1], ar[7, 3], ar[8, 2]]
Saving data/UGLFor54617382.m ...
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{1232.55, Null}
153 Diag[ar[1, 7], ar[2, 8], ar[4, 3], ar[6, 5]]
Saving data/UGLFor17284365.m ...
{244.813, Null}
154 Diag[ar[2, 6], ar[5, 3], ar[7, 1], ar[8, 4]]
Saving data/UGLFor26537184.m ...
{738.656, Null}
155 Diag[ar[1, 8], ar[2, 5], ar[6, 4], ar[7, 3]]
Saving data/UGLFor18256473.m ...
{349.328, Null}
156 Diag[ar[4, 2], ar[5, 3], ar[7, 6], ar[8, 1]]
Saving data/UGLFor42537681.m ...
{1004.39, Null}
```