```
gap> LoadPackage(« loops ») ;
true

n=12
gap> CanonicalCayleyTable([[1,5],[5,1]]);
[ [ 1, 2 ], [ 2, 1 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 2 with 2 generators>
gap> IsCyclic(last);
true

n=14
gap> CanonicalCayleyTable([[1,3,5],[3,5,1],[5,1,3]]);
[ [ 1, 2, 3 ], [ 2, 3, 1 ], [ 3, 1, 2 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 3 with 3 generators>
gap> IsCyclic(last);
true

n=16
gap> CanonicalCayleyTable([[1,3,5,7],[3,7,1,5],[5,1,7,3],[7,5,3,1]]);
[ [ 1, 2, 3, 4 ], [ 2, 4, 1, 3 ], [ 3, 1, 4, 2 ], [ 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 4 with 4 generators>
gap> IsCyclic(last);
true

n=18
gap> CanonicalCayleyTable([[1,5,7],[5,7,1],[7,1,5]]);[ [ 1, 2, 3 ], [ 2, 3, 1 ], [ 3, 1, 2 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 3 with 3 generators>
gap> IsCyclic(last);
true

n=20
gap> CanonicalCayleyTable([[1,3,7,9],[3,9,1,7],[7,1,9,3],[9,7,3,1]]);
[ [ 1, 2, 3, 4 ], [ 2, 4, 1, 3 ], [ 3, 1, 4, 2 ], [ 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 4 with 4 generators>
gap> IsCyclic(last);
true

n=22
gap> CanonicalCayleyTable([[1,3,5,7,9],[3,9,7,1,5],[5,7,3,9,1],[7,1,9,5,3],[9,5,1,3,7]]);
[ [ 1, 2, 3, 4, 5 ], [ 2, 5, 4, 1, 3 ], [ 3, 4, 2, 5, 1 ], [ 4, 1, 5, 3, 2 ],
  [ 5, 3, 1, 2, 4 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 5 with 5 generators>
gap> IsCyclic(last);
true
```

n=24
gap> CanonicalCayleyTable([[1,5,7,11],[5,1,11,7],[7,11,1,5],[11,7,5,1]]);[[1, 2, 3, 4], [2, 1, 4, 3],
[3, 4, 1, 2], [4, 3, 2, 1]]
gap> GroupByMultiplicationTable(ct);
<group of size 4 with 4 generators>
gap> IsCyclic(last);
false

n=26
gap> CanonicalCayleyTable([[1,3,5,7,9,11],[3,9,11,5,1,7],[5,11,1,9,7,3],[7,5,9,3,11,1],
[9,1,7,11,3,5],[11,7,3,1,5,9]]);
[[1, 2, 3, 4, 5, 6], [2, 5, 6, 3, 1, 4], [3, 6, 1, 5, 4, 2],
  [4, 3, 5, 2, 6, 1], [5, 1, 4, 6, 2, 3], [6, 4, 2, 1, 3, 5]]
gap> GroupByMultiplicationTable(ct);
<group of size 6 with 6 generators>
gap> IsCyclic(last);
true

n=28
gap> CanonicalCayleyTable([[1,3,5,9,11,13],[3,9,13,1,5,11],[5,13,3,11,1,9],[9,1,11,3,13,5],
[11,5,1,13,9,3],[13,11,9,5,3,1]]);
[[1, 2, 3, 4, 5, 6], [2, 4, 6, 1, 3, 5], [3, 6, 2, 5, 1, 4],
  [4, 1, 5, 2, 6, 3], [5, 3, 1, 6, 4, 2], [6, 5, 4, 3, 2, 1]]
gap> GroupByMultiplicationTable(ct);
<group of size 6 with 6 generators>
gap> IsCyclic(last);
true

n=30
gap> CanonicalCayleyTable([[1,7,11,13],[7,11,13,1],[11,13,1,7],[13,1,7,11]]);[[1, 2, 3, 4], [2, 3,
4, 1], [3, 4, 1, 2], [4, 1, 2, 3]]
gap> GroupByMultiplicationTable(ct);
<group of size 4 with 4 generators>
gap> IsCyclic(last);
true

n=32
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15],[3,9,15,11,5,1,7,13],[5,15,7,3,13,9,1,11],
[7,11,3,15,1,13,5,9],[9,5,13,1,15,3,11,7],[11,1,9,13,3,7,15,5],[13,7,1,5,11,15,9,3],
[15,13,11,9,7,5,3,1]]);
[[1, 2, 3, 4, 5, 6, 7, 8], [2, 5, 8, 6, 3, 1, 4, 7],
  [3, 8, 4, 2, 7, 5, 1, 6], [4, 6, 2, 8, 1, 7, 3, 5],
  [5, 3, 7, 1, 8, 2, 6, 4], [6, 1, 5, 7, 2, 4, 8, 3],
  [7, 4, 1, 3, 6, 8, 5, 2], [8, 7, 6, 5, 4, 3, 2, 1]]
gap> GroupByMultiplicationTable();
<group of size 8 with 8 generators>
gap> IsCyclic(last);
true

```
n=34
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11],[3,9,11,5,1,7],[5,11,1,9,7,3],[7,5,9,3,11,1],
[9,1,7,11,3,5],[11,7,3,1,5,9]]);
[ [ 1, 2, 3, 4, 5, 6 ], [ 2, 5, 6, 3, 1, 4 ], [ 3, 6, 1, 5, 4, 2 ],
  [ 4, 3, 5, 2, 6, 1 ], [ 5, 1, 4, 6, 2, 3 ], [ 6, 4, 2, 1, 3, 5 ] ]
gap> GroupByMultiplicationTable();
<group of size 6 with 6 generators>
gap> IsCyclic(last);
true

n=36
gap> ct:=CanonicalCayleyTable([[1,5,7,11,13,17],[5,11,1,17,7,13],[7,1,13,5,17,11],[11,17,5,13,1,7],
[13,7,17,1,11,5],[17,13,11,7,5,1]]);
[ [ 1, 2, 3, 4, 5, 6 ], [ 2, 4, 1, 6, 3, 5 ], [ 3, 1, 5, 2, 6, 4 ],
  [ 4, 6, 2, 5, 1, 3 ], [ 5, 3, 6, 1, 4, 2 ], [ 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable();
<group of size 6 with 6 generators>
gap> IsCyclic(last);
true

n=38
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17],[3,9,15,17,11,5,1,7,13],
[5,15,13,3,7,17,11,1,9],[7,17,3,11,13,1,15,9,5],[9,11,7,13,5,15,3,17,1],[11,5,17,1,15,7,9,13,3],
[13,1,11,15,3,9,17,5,7],[15,7,1,9,17,13,5,3,11],[17,13,9,5,1,3,7,11,15]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9 ], [ 2, 5, 8, 9, 6, 3, 1, 4, 7 ],
  [ 3, 8, 7, 2, 4, 9, 6, 1, 5 ], [ 4, 9, 2, 6, 7, 1, 8, 5, 3 ],
  [ 5, 6, 4, 7, 3, 8, 2, 9, 1 ], [ 6, 3, 9, 1, 8, 4, 5, 7, 2 ],
  [ 7, 1, 6, 8, 2, 5, 9, 3, 4 ], [ 8, 4, 1, 5, 9, 7, 3, 2, 6 ],
  [ 9, 7, 5, 3, 1, 2, 4, 6, 8 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 9 with 9 generators>
gap> IsCyclic(last);
true

n=40
gap> ct:=CanonicalCayleyTable([[1,3,7,9,11,13,17,19],[3,9,19,13,7,1,11,17],[7,19,9,17,3,11,1,13],
[9,13,17,1,19,3,7,11],[11,7,3,19,1,17,13,9],[13,1,11,3,17,9,19,7],[17,11,1,7,13,19,9,3],
[19,17,13,11,9,7,3,1]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8 ], [ 2, 4, 8, 6, 3, 1, 5, 7 ],
  [ 3, 8, 4, 7, 2, 5, 1, 6 ], [ 4, 6, 7, 1, 8, 2, 3, 5 ],
  [ 5, 3, 2, 8, 1, 7, 6, 4 ], [ 6, 1, 5, 2, 7, 4, 8, 3 ],
  [ 7, 5, 1, 3, 6, 8, 4, 2 ], [ 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 8 with 8 generators>
gap> IsCyclic(last);
false

n=42
gap> ct:=CanonicalCayleyTable([[1,5,11,13,17,19],[5,17,13,19,1,11],[11,13,5,17,19,1],
[13,19,17,1,11,5],[17,1,19,11,5,13],[19,11,1,5,13,17]]);
[ [ 1, 2, 3, 4, 5, 6 ], [ 2, 5, 4, 6, 1, 3 ], [ 3, 4, 2, 5, 6, 1 ],
  [ 4, 6, 5, 1, 3, 2 ], [ 5, 1, 6, 3, 2, 4 ], [ 6, 3, 1, 2, 4, 5 ] ]
```

```
gap> GroupByMultiplicationTable(ct);
<group of size 6 with 6 generators>
gap> IsCyclic(last);
true


n=44
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,13,15,17,19,21],[3,9,15,21,17,5,1,7,13,19],
[5,15,19,9,1,21,13,3,7,17],[7,21,9,5,19,3,17,13,1,15],[9,17,1,19,7,15,3,21,5,13],
[13,5,21,3,15,7,19,1,17,9],[15,1,13,17,3,19,5,9,21,7],[17,7,3,13,21,1,9,19,15,5],
[19,13,7,1,5,17,21,15,9,3],[21,19,17,15,13,9,7,5,3,1]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ], [ 2, 5, 7, 10, 8, 3, 1, 4, 6, 9 ],
  [ 3, 7, 9, 5, 1, 10, 6, 2, 4, 8 ], [ 4, 10, 5, 3, 9, 2, 8, 6, 1, 7 ],
  [ 5, 8, 1, 9, 4, 7, 2, 10, 3, 6 ], [ 6, 3, 10, 2, 7, 4, 9, 1, 8, 5 ],
  [ 7, 1, 6, 8, 2, 9, 3, 5, 10, 4 ], [ 8, 4, 2, 6, 10, 1, 5, 9, 7, 3 ],
  [ 9, 6, 4, 1, 3, 8, 10, 7, 5, 2 ], [ 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 10 with 10 generators>
gap> IsCyclic(last);
true

n=46
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,19,21],[3,9,15,21,19,13,7,1,5,11,17],
[5,15,21,11,1,9,19,17,7,3,13],[7,21,11,3,17,15,1,13,19,5,9],[9,19,1,17,11,7,21,3,15,13,5],
[11,13,9,15,7,17,5,19,3,21,1],[13,7,19,1,21,5,15,11,9,17,3],[15,1,17,13,3,19,11,5,21,9,7],
[17,5,7,19,15,3,9,21,13,1,11],[19,11,3,5,13,21,17,9,1,7,15],[21,17,13,9,5,1,3,7,11,15,19]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 ], [ 2, 5, 8, 11, 10, 7, 4, 1, 3, 6, 9 ]
    , [ 3, 8, 11, 6, 1, 5, 10, 9, 4, 2, 7 ],
  [ 4, 11, 6, 2, 9, 8, 1, 7, 10, 3, 5 ], [ 5, 10, 1, 9, 6, 4, 11, 2, 8, 7, 3 ]
    , [ 6, 7, 5, 8, 4, 9, 3, 10, 2, 11, 1 ],
  [ 7, 4, 10, 1, 11, 3, 8, 6, 5, 9, 2 ], [ 8, 1, 9, 7, 2, 10, 6, 3, 11, 5, 4 ]
    , [ 9, 3, 4, 10, 8, 2, 5, 11, 7, 1, 6 ],
  [ 10, 6, 2, 3, 7, 11, 9, 5, 1, 4, 8 ],
  [ 11, 9, 7, 5, 3, 1, 2, 4, 6, 8, 10 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 11 with 11 generators>
gap> IsCyclic(last);
true

n=48
gap> ct:=CanonicalCayleyTable([[1,5,7,11,13,17,19,23],[5,23,13,7,17,11,1,19],
[7,13,1,19,5,23,11,17],[11,7,19,23,1,5,17,13],[13,17,5,1,23,19,7,11],[17,11,23,5,19,1,13,7],
[19,1,11,17,7,13,23,5],[23,19,17,13,11,7,5,1]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8 ], [ 2, 8, 5, 3, 6, 4, 1, 7 ],
  [ 3, 5, 1, 7, 2, 8, 4, 6 ], [ 4, 3, 7, 8, 1, 2, 6, 5 ],
  [ 5, 6, 2, 1, 8, 7, 3, 4 ], [ 6, 4, 8, 2, 7, 1, 5, 3 ],
  [ 7, 1, 4, 6, 3, 5, 8, 2 ], [ 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 8 with 8 generators>
gap> IsCyclic(last);
false
```

```
n=50
ct:=CanonicalCayleyTable([[1,3,7,9,11,13,17,19,21,23],[3,9,21,23,17,11,1,7,13,19],
[7,21,1,13,23,9,19,17,3,11],[9,23,13,19,1,17,3,21,11,7],[11,17,23,1,21,7,13,9,19,3],
[13,11,9,17,7,19,21,3,23,1],[17,1,19,3,13,21,11,23,7,9],[19,7,17,21,9,3,23,11,1,13],
[21,13,3,11,19,23,7,1,9,17],[23,19,11,7,3,1,9,13,17,21]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ], [ 2, 4, 9, 10, 7, 5, 1, 3, 6, 8 ],
  [ 3, 9, 1, 6, 10, 4, 8, 7, 2, 5 ], [ 4, 10, 6, 8, 1, 7, 2, 9, 5, 3 ],
  [ 5, 7, 10, 1, 9, 3, 6, 4, 8, 2 ], [ 6, 5, 4, 7, 3, 8, 9, 2, 10, 1 ],
  [ 7, 1, 8, 2, 6, 9, 5, 10, 3, 4 ], [ 8, 3, 7, 9, 4, 2, 10, 5, 1, 6 ],
  [ 9, 6, 2, 5, 8, 10, 3, 1, 4, 7 ], [ 10, 8, 5, 3, 2, 1, 4, 6, 7, 9 ] ]
gap> GroupByMultiplicationTable(ct);
<group of size 10 with 10 generators>
gap> IsCyclic(last);
true

n=52
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,15,17,19,21,23,25],[3,9,15,21,25,19,7,1,5,11,17,23],
[5,15,25,17,7,3,23,19,9,1,11,21],[7,21,17,3,11,25,1,15,23,9,5,19],[9,25,7,11,23,5,21,3,15,19,1,17],
[11,19,3,25,5,17,9,21,1,23,7,15],[15,7,23,1,21,9,17,5,25,3,19,11],[17,1,19,15,3,21,5,23,11,7,25,9],
[19,5,9,23,15,1,25,11,3,17,21,7],[21,11,1,9,19,23,3,7,17,25,15,5],[23,17,11,5,1,7,19,25,21,15,9,3],
[25,23,21,19,17,15,11,9,7,5,3,1]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 ],
  [ 2, 5, 7, 10, 12, 9, 4, 1, 3, 6, 8, 11 ],
  [ 3, 7, 12, 8, 4, 2, 11, 9, 5, 1, 6, 10 ],
  [ 4, 10, 8, 2, 6, 12, 1, 7, 11, 5, 3, 9 ],
  [ 5, 12, 4, 6, 11, 3, 10, 2, 7, 9, 1, 8 ],
  [ 6, 9, 2, 12, 3, 8, 5, 10, 1, 11, 4, 7 ],
  [ 7, 4, 11, 1, 10, 5, 8, 3, 12, 2, 9, 6 ],
  [ 8, 1, 9, 7, 2, 10, 3, 11, 6, 4, 12, 5 ],
  [ 9, 3, 5, 11, 7, 1, 12, 6, 2, 8, 10, 4 ],
  [ 10, 6, 1, 5, 9, 11, 2, 4, 8, 12, 7, 3 ],
  [ 11, 8, 6, 3, 1, 4, 9, 12, 10, 7, 5, 2 ],
  [ 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 12 with 12 generators>
gap> IsCyclic(last);
true

n=54
gap> ct:=CanonicalCayleyTable([[1,5,7,11,13,17,19,23,25],[5,25,19,1,11,23,13,7,17],
[7,19,5,23,17,11,25,1,13],[11,1,23,13,19,25,7,17,5],[13,11,17,19,7,5,23,25,1],
[17,23,11,25,5,19,1,13,7],[19,13,25,7,23,1,17,5,11],[23,7,1,17,25,13,5,11,19],
[25,17,13,5,1,7,11,19,23]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9 ], [ 2, 9, 7, 1, 4, 8, 5, 3, 6 ],
  [ 3, 7, 2, 8, 6, 4, 9, 1, 5 ], [ 4, 1, 8, 5, 7, 9, 3, 6, 2 ],
  [ 5, 4, 6, 7, 3, 2, 8, 9, 1 ], [ 6, 8, 4, 9, 2, 7, 1, 5, 3 ],
  [ 7, 5, 9, 3, 8, 1, 6, 2, 4 ], [ 8, 3, 1, 6, 9, 5, 2, 4, 7 ],
  [ 9, 6, 5, 2, 1, 3, 4, 7, 8 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 9 with 9 generators>
gap> IsCyclic(last);
true
```

n=56
gap> ct:=CanonicalCayleyTable([[1,3,5,9,11,13,15,17,19,23,25,27],
[3,9,15,27,23,17,11,5,1,13,19,25],[5,15,25,11,1,9,19,27,17,3,13,23],
[9,27,11,25,13,5,23,15,3,17,1,19],[11,23,1,13,9,25,3,19,15,27,5,17],
[13,17,9,5,25,1,27,3,23,19,11,15],[15,11,19,23,3,27,1,25,5,9,17,13],
[17,5,27,15,19,3,25,9,13,1,23,11],[19,1,17,3,15,23,5,13,25,11,27,9],
[23,13,3,17,27,19,9,1,11,25,15,5],[25,19,13,1,5,11,17,23,27,15,9,3],
[27,25,23,19,17,15,13,11,9,5,3,1]]);
[[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12],
  [2, 4, 7, 12, 10, 8, 5, 3, 1, 6, 9, 11],
  [3, 7, 11, 5, 1, 4, 9, 12, 8, 2, 6, 10],
  [4, 12, 5, 11, 6, 3, 10, 7, 2, 8, 1, 9],
  [5, 10, 1, 6, 4, 11, 2, 9, 7, 12, 3, 8],
  [6, 8, 4, 3, 11, 1, 12, 2, 10, 9, 5, 7],
  [7, 5, 9, 10, 2, 12, 1, 11, 3, 4, 8, 6],
  [8, 3, 12, 7, 9, 2, 11, 4, 6, 1, 10, 5],
  [9, 1, 8, 2, 7, 10, 3, 6, 11, 5, 12, 4],
  [10, 6, 2, 8, 12, 9, 4, 1, 5, 11, 7, 3],
  [11, 9, 6, 1, 3, 5, 8, 10, 12, 7, 4, 2],
  [12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1]]
gap> GroupByMultiplicationTable(last);
<group of size 12 with 12 generators>
gap> IsCyclic(last);
false

n=58
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,19,21,23,25,27],
[3,9,15,21,27,25,19,13,7,1,5,11,17,23],[5,15,25,23,13,3,7,17,27,21,11,1,9,19],
[7,21,23,9,5,19,25,11,3,17,27,13,1,15],[9,27,13,5,23,17,1,19,21,3,15,25,7,11],
[11,25,3,19,17,5,27,9,13,23,1,21,15,7],[13,19,7,25,1,27,5,21,11,15,17,9,23,3],
[15,13,17,11,19,9,21,7,23,5,25,3,27,1],[17,7,27,3,21,13,11,23,1,25,9,15,19,5],
[19,1,21,17,3,23,15,5,25,13,7,27,11,9],[21,5,11,27,15,1,17,25,9,7,23,19,3,13],
[23,11,1,13,25,21,9,3,15,27,19,7,5,17],[25,17,9,1,7,15,23,27,19,11,3,5,13,21],
[27,23,19,15,11,7,3,1,5,9,13,17,21,25]]);
[[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14],
  [2, 5, 8, 11, 14, 13, 10, 7, 4, 1, 3, 6, 9, 12],
  [3, 8, 13, 12, 7, 2, 4, 9, 14, 11, 6, 1, 5, 10],
  [4, 11, 12, 5, 3, 10, 13, 6, 2, 9, 14, 7, 1, 8],
  [5, 14, 7, 3, 12, 9, 1, 10, 11, 2, 8, 13, 4, 6],
  [6, 13, 2, 10, 9, 3, 14, 5, 7, 12, 1, 11, 8, 4],
  [7, 10, 4, 13, 1, 14, 3, 11, 6, 8, 9, 5, 12, 2],
  [8, 7, 9, 6, 10, 5, 11, 4, 12, 3, 13, 2, 14, 1],
  [9, 4, 14, 2, 11, 7, 6, 12, 1, 13, 5, 8, 10, 3],
  [10, 1, 11, 9, 2, 12, 8, 3, 13, 7, 4, 14, 6, 5],
  [11, 3, 6, 14, 8, 1, 9, 13, 5, 4, 12, 10, 2, 7],
  [12, 6, 1, 7, 13, 11, 5, 2, 8, 14, 10, 4, 3, 9],
  [13, 9, 5, 1, 4, 8, 12, 14, 10, 6, 2, 3, 7, 11],
  [14, 12, 10, 8, 6, 4, 2, 1, 3, 5, 7, 9, 11, 13]]
gap> GroupByMultiplicationTable(last);
<group of size 14 with 14 generators>
gap> IsCyclic(last);
true

n=60
gap> ct:=CanonicalCayleyTable([[1,7,11,13,17,19,23,29],[7,11,17,29,1,13,19,23],
[11,17,1,23,7,29,13,19],[13,29,23,11,19,7,1,17],[17,1,7,19,11,23,29,13],[19,13,29,7,23,1,17,11],
[23,19,13,1,29,17,11,7],[29,23,19,17,13,11,7,1]]);
[[1, 2, 3, 4, 5, 6, 7, 8], [2, 3, 5, 8, 1, 4, 6, 7],
  [3, 5, 1, 7, 2, 8, 4, 6], [4, 8, 7, 3, 6, 2, 1, 5],
  [5, 1, 2, 6, 3, 7, 8, 4], [6, 4, 8, 2, 7, 1, 5, 3],
  [7, 6, 4, 1, 8, 5, 3, 2], [8, 7, 6, 5, 4, 3, 2, 1]]
gap> GroupByMultiplicationTable(last);
<group of size 8 with 8 generators>
gap> IsCyclic(last);
false

n=62
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,19,21,23,25,27,29],
[3,9,15,21,27,29,23,17,11,5,1,7,13,19,25],[5,15,25,27,17,7,3,13,23,29,19,9,1,11,21],
[7,21,27,13,1,15,29,19,5,9,23,25,11,3,17],[9,27,17,1,19,25,7,11,29,15,3,21,23,5,13],
[11,29,7,15,25,3,19,21,1,23,17,5,27,13,9],[13,23,3,29,7,19,17,9,27,1,25,11,15,21,5],
[15,17,13,19,11,21,9,23,7,25,5,27,3,29,1],[17,11,23,5,29,1,27,7,21,13,15,19,9,25,3],
[19,5,29,9,15,23,1,25,13,11,27,3,21,17,7],[21,1,19,23,3,17,25,5,15,27,7,13,29,9,11],
[23,7,9,25,21,5,11,27,19,3,13,29,17,1,15],[25,13,1,11,23,27,15,3,9,21,29,17,5,7,19],
[27,19,11,3,5,13,21,29,25,17,9,1,7,15,23],[29,25,21,17,13,9,5,1,3,7,11,15,19,23,27]]);
[[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15],
  [2, 5, 8, 11, 14, 15, 12, 9, 6, 3, 1, 4, 7, 10, 13],
  [3, 8, 13, 14, 9, 4, 2, 7, 12, 15, 10, 5, 1, 6, 11],
  [4, 11, 14, 7, 1, 8, 15, 10, 3, 5, 12, 13, 6, 2, 9],
  [5, 14, 9, 1, 10, 13, 4, 6, 15, 8, 2, 11, 12, 3, 7],
  [6, 15, 4, 8, 13, 2, 10, 11, 1, 12, 9, 3, 14, 7, 5],
  [7, 12, 2, 15, 4, 10, 9, 5, 14, 1, 13, 6, 8, 11, 3],
  [8, 9, 7, 10, 6, 11, 5, 12, 4, 13, 3, 14, 2, 15, 1],
  [9, 6, 12, 3, 15, 1, 14, 4, 11, 7, 8, 10, 5, 13, 2],
  [10, 3, 15, 5, 8, 12, 1, 13, 7, 6, 14, 2, 11, 9, 4],
  [11, 1, 10, 12, 2, 9, 13, 3, 8, 14, 4, 7, 15, 5, 6],
  [12, 4, 5, 13, 11, 3, 6, 14, 10, 2, 7, 15, 9, 1, 8],
  [13, 7, 1, 6, 12, 14, 8, 2, 5, 11, 15, 9, 3, 4, 10],
  [14, 10, 6, 2, 3, 7, 11, 15, 13, 9, 5, 1, 4, 8, 12],
  [15, 13, 11, 9, 7, 5, 3, 1, 2, 4, 6, 8, 10, 12, 14]]
gap> GroupByMultiplicationTable(last);
<group of size 15 with 15 generators>
gap> IsCyclic(last);
true

n=64
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31],
[3,9,15,21,27,31,25,19,13,7,1,5,11,17,23,29],[5,15,25,29,19,9,1,11,21,31,23,13,3,7,17,27],
[7,21,29,15,1,13,27,23,9,5,19,31,17,3,11,25],[9,27,19,1,17,29,11,7,25,21,3,15,31,13,5,23],
[11,31,9,13,29,7,15,27,5,17,25,3,19,23,1,21],[13,25,1,27,11,15,23,3,29,9,17,21,5,31,7,19],
[15,19,11,23,7,27,3,31,1,29,5,25,9,21,13,17],[17,13,21,9,25,5,29,1,31,3,27,7,23,11,19,15],
[19,7,31,5,21,17,9,29,3,23,15,11,27,1,25,13],[21,1,23,19,3,25,17,5,27,15,7,29,13,9,31,11],
[23,5,13,31,15,3,21,25,7,11,29,17,1,19,27,9],[25,11,3,17,31,19,5,9,23,27,13,1,15,29,21,7],
[27,17,7,3,13,23,31,21,11,1,9,19,29,25,15,5],[29,23,17,11,5,1,7,13,19,25,31,27,21,15,9,3],

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[31,29,27,25,23,21,19,17,15,13,11,9,7,5,3,1]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 ],
  [ 2, 5, 8, 11, 14, 16, 13, 10, 7, 4, 1, 3, 6, 9, 12, 15 ],
  [ 3, 8, 13, 15, 10, 5, 1, 6, 11, 16, 12, 7, 2, 4, 9, 14 ],
  [ 4, 11, 15, 8, 1, 7, 14, 12, 5, 3, 10, 16, 9, 2, 6, 13 ],
  [ 5, 14, 10, 1, 9, 15, 6, 4, 13, 11, 2, 8, 16, 7, 3, 12 ],
  [ 6, 16, 5, 7, 15, 4, 8, 14, 3, 9, 13, 2, 10, 12, 1, 11 ],
  [ 7, 13, 1, 14, 6, 8, 12, 2, 15, 5, 9, 11, 3, 16, 4, 10 ],
  [ 8, 10, 6, 12, 4, 14, 2, 16, 1, 15, 3, 13, 5, 11, 7, 9 ],
  [ 9, 7, 11, 5, 13, 3, 15, 1, 16, 2, 14, 4, 12, 6, 10, 8 ],
  [ 10, 4, 16, 3, 11, 9, 5, 15, 2, 12, 8, 6, 14, 1, 13, 7 ],
  [ 11, 1, 12, 10, 2, 13, 9, 3, 14, 8, 4, 15, 7, 5, 16, 6 ],
  [ 12, 3, 7, 16, 8, 2, 11, 13, 4, 6, 15, 9, 1, 10, 14, 5 ],
  [ 13, 6, 2, 9, 16, 10, 3, 5, 12, 14, 7, 1, 8, 15, 11, 4 ],
  [ 14, 9, 4, 2, 7, 12, 16, 11, 6, 1, 5, 10, 15, 13, 8, 3 ],
  [ 15, 12, 9, 6, 3, 1, 4, 7, 10, 13, 16, 14, 11, 8, 5, 2 ],
  [ 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 16 with 16 generators>
gap> IsCyclic(last);
true

n=66
gap> ct:=CanonicalCayleyTable([[1,5,7,13,17,19,23,25,29,31],[5,25,31,1,19,29,17,7,13,23],
[7,31,17,25,13,1,29,23,5,19],[13,1,25,29,23,17,31,5,19,7],[17,19,13,23,25,7,5,29,31,1],
[19,29,1,17,7,31,25,13,23,5],[23,17,29,31,5,25,1,19,7,13],[25,7,23,5,29,13,19,31,1,17],
[29,13,5,19,31,23,7,1,17,25],[31,23,19,7,1,5,13,17,25,29]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ], [ 2, 8, 10, 1, 6, 9, 5, 3, 4, 7 ],
  [ 3, 10, 5, 8, 4, 1, 9, 7, 2, 6 ], [ 4, 1, 8, 9, 7, 5, 10, 2, 6, 3 ],
  [ 5, 6, 4, 7, 8, 3, 2, 9, 10, 1 ], [ 6, 9, 1, 5, 3, 10, 8, 4, 7, 2 ],
  [ 7, 5, 9, 10, 2, 8, 1, 6, 3, 4 ], [ 8, 3, 7, 2, 9, 4, 6, 10, 1, 5 ],
  [ 9, 4, 2, 6, 10, 7, 3, 1, 5, 8 ], [ 10, 7, 6, 3, 1, 2, 4, 5, 8, 9 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 10 with 10 generators>
gap> IsCyclic(last);
true

n=68
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,19,21,23,25,27,29,31,33],
[3,9,15,21,27,33,29,23,11,5,1,7,13,19,25,31],[5,15,25,33,23,13,3,7,27,31,21,11,1,9,19,29],
[7,21,33,19,5,9,23,31,3,11,25,29,15,1,13,27],[9,27,23,5,13,31,19,1,33,15,3,21,29,11,7,25],
[11,33,13,9,31,15,7,29,5,27,19,3,25,21,1,23],[13,29,3,23,19,7,33,9,25,1,27,15,11,31,5,21],
[15,23,7,31,1,29,9,21,13,25,5,33,3,27,11,19],[19,11,27,3,33,5,25,13,21,9,29,1,31,7,23,15],
[21,5,31,11,15,27,1,25,9,33,7,19,23,3,29,13],[23,1,21,25,3,19,27,5,29,7,15,31,9,13,33,11],
[25,7,11,29,21,3,15,33,1,19,31,13,5,23,27,9],[27,13,1,15,29,25,11,3,31,23,9,5,19,33,21,7],
[29,19,9,1,11,21,31,27,7,3,13,23,33,25,15,5],[31,25,19,13,7,1,5,11,23,29,33,27,21,15,9,3],
[33,31,29,27,25,23,21,19,15,13,11,9,7,5,3,1]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 ],
  [ 2, 5, 8, 10, 13, 16, 14, 11, 6, 3, 1, 4, 7, 9, 12, 15 ],
  [ 3, 8, 12, 16, 11, 7, 2, 4, 13, 15, 10, 6, 1, 5, 9, 14 ],
  [ 4, 10, 16, 9, 3, 5, 11, 15, 2, 6, 12, 14, 8, 1, 7, 13 ],
  [ 5, 13, 11, 3, 7, 15, 9, 1, 16, 8, 2, 10, 14, 6, 4, 12 ],
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  [ 6, 16, 7, 5, 15, 8, 4, 14, 3, 13, 9, 2, 12, 10, 1, 11 ],
  [ 7, 14, 2, 11, 9, 4, 16, 5, 12, 1, 13, 8, 6, 15, 3, 10 ],
  [ 8, 11, 4, 15, 1, 14, 5, 10, 7, 12, 3, 16, 2, 13, 6, 9 ],
  [ 9, 6, 13, 2, 16, 3, 12, 7, 10, 5, 14, 1, 15, 4, 11, 8 ],
  [ 10, 3, 15, 6, 8, 13, 1, 12, 5, 16, 4, 9, 11, 2, 14, 7 ],
  [ 11, 1, 10, 12, 2, 9, 13, 3, 14, 4, 8, 15, 5, 7, 16, 6 ],
  [ 12, 4, 6, 14, 10, 2, 8, 16, 1, 9, 15, 7, 3, 11, 13, 5 ],
  [ 13, 7, 1, 8, 14, 12, 6, 2, 15, 11, 5, 3, 9, 16, 10, 4 ],
  [ 14, 9, 5, 1, 6, 10, 15, 13, 4, 2, 7, 11, 16, 12, 8, 3 ],
  [ 15, 12, 9, 7, 4, 1, 3, 6, 11, 14, 16, 13, 10, 8, 5, 2 ],
  [ 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 16 with 16 generators>
gap> IsCyclic(last);
true

n=70
gap> ct:=CanonicalCayleyTable([[1,3,9,11,13,17,19,23,27,29,31,33],
[3,9,27,33,31,19,13,1,11,17,23,29],[9,27,11,29,23,13,31,3,33,19,1,17],
[11,33,29,19,3,23,1,27,17,31,9,13],[13,31,23,3,29,11,33,19,1,27,17,9],
[17,19,13,23,11,9,27,29,31,3,33,1],[19,13,31,1,33,27,11,17,23,9,29,3],
[23,1,3,27,19,29,17,31,9,33,13,11],[27,11,33,17,1,31,23,9,29,13,3,19],
[29,17,19,31,27,3,9,33,13,1,11,23],[31,23,1,9,17,33,29,13,3,11,19,27],
[33,29,17,13,9,1,3,11,19,23,27,31]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 ],
  [ 2, 3, 9, 12, 11, 7, 5, 1, 4, 6, 8, 10 ],
  [ 3, 9, 4, 10, 8, 5, 11, 2, 12, 7, 1, 6 ],
  [ 4, 12, 10, 7, 2, 8, 1, 9, 6, 11, 3, 5 ],
  [ 5, 11, 8, 2, 10, 4, 12, 7, 1, 9, 6, 3 ],
  [ 6, 7, 5, 8, 4, 3, 9, 10, 11, 2, 12, 1 ],
  [ 7, 5, 11, 1, 12, 9, 4, 6, 8, 3, 10, 2 ],
  [ 8, 1, 2, 9, 7, 10, 6, 11, 3, 12, 5, 4 ],
  [ 9, 4, 12, 6, 1, 11, 8, 3, 10, 5, 2, 7 ],
  [ 10, 6, 7, 11, 9, 2, 3, 12, 5, 1, 4, 8 ],
  [ 11, 8, 1, 3, 6, 12, 10, 5, 2, 4, 7, 9 ],
  [ 12, 10, 6, 5, 3, 1, 2, 4, 7, 8, 9, 11 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 12 with 12 generators>
gap> IsCyclic(last);
true

n=72
gap> ct:=CanonicalCayleyTable([[1,5,7,11,13,17,19,23,25,29,31,35],
[5,25,35,17,7,13,23,29,19,1,11,31],[7,35,23,5,19,25,11,17,31,13,1,29],
[11,17,5,23,1,29,7,35,13,31,19,25],[13,7,19,1,25,5,31,11,35,17,29,23],
[17,13,25,29,5,1,35,31,7,11,23,19],[19,23,11,7,31,35,1,5,29,25,13,17],
[23,29,17,35,11,31,5,25,1,19,7,13],[25,19,31,13,35,7,29,1,23,5,17,11],
[29,1,13,31,17,11,25,19,5,23,35,7],[31,11,1,19,29,23,13,7,17,35,25,5],
[35,31,29,25,23,19,17,13,11,7,5,1]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 ],
  [ 2, 9, 12, 6, 3, 5, 8, 10, 7, 1, 4, 11 ],
  [ 3, 12, 8, 2, 7, 9, 4, 6, 11, 5, 1, 10 ],
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  [ 4, 6, 2, 8, 1, 10, 3, 12, 5, 11, 7, 9 ],
  [ 5, 3, 7, 1, 9, 2, 11, 4, 12, 6, 10, 8 ],
  [ 6, 5, 9, 10, 2, 1, 12, 11, 3, 4, 8, 7 ],
  [ 7, 8, 4, 3, 11, 12, 1, 2, 10, 9, 5, 6 ],
  [ 8, 10, 6, 12, 4, 11, 2, 9, 1, 7, 3, 5 ],
  [ 9, 7, 11, 5, 12, 3, 10, 1, 8, 2, 6, 4 ],
  [ 10, 1, 5, 11, 6, 4, 9, 7, 2, 8, 12, 3 ],
  [ 11, 4, 1, 7, 10, 8, 5, 3, 6, 12, 9, 2 ],
  [ 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 12 with 12 generators>
gap> IsCyclic(last);
false

n=74
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35],
[3,9,15,21,27,33,35,29,23,17,11,5,1,7,13,19,25,31],
[5,15,25,35,29,19,9,1,11,21,31,33,23,13,3,7,17,27],
[7,21,35,25,11,3,17,31,29,15,1,13,27,33,19,5,9,23],
[9,27,29,11,7,25,31,13,5,23,33,15,3,21,35,17,1,19],
[11,33,19,3,25,27,5,17,35,13,9,31,21,1,23,29,7,15],
[13,35,9,17,31,5,21,27,1,25,23,3,29,19,7,33,15,11],
[15,29,1,31,13,17,27,3,33,11,19,25,5,35,9,21,23,7],
[17,23,11,29,5,35,1,33,7,27,13,21,19,15,25,9,31,3],
[19,17,21,15,23,13,25,11,27,9,29,7,31,5,33,3,35,1],
[21,11,31,1,33,9,23,19,13,29,3,35,7,25,17,15,27,5],
[23,5,33,13,15,31,3,25,21,7,35,11,17,29,1,27,19,9],
[25,1,23,27,3,21,29,5,19,31,7,17,33,9,15,35,11,13],
[27,7,13,33,21,1,19,35,15,5,25,29,9,11,31,23,3,17],
[29,13,3,19,35,23,7,9,25,33,17,1,15,31,27,11,5,21],
[31,19,7,5,17,29,33,21,9,3,15,27,35,23,11,1,13,25],
[33,25,17,9,1,7,15,23,31,35,27,19,11,3,5,13,21,29],
[35,31,27,23,19,15,11,7,3,1,5,9,13,17,21,25,29,33]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 ],
  [ 2, 5, 8, 11, 14, 17, 18, 15, 12, 9, 6, 3, 1, 4, 7, 10, 13, 16 ],
  [ 3, 8, 13, 18, 15, 10, 5, 1, 6, 11, 16, 17, 12, 7, 2, 4, 9, 14 ],
  [ 4, 11, 18, 13, 6, 2, 9, 16, 15, 8, 1, 7, 14, 17, 10, 3, 5, 12 ],
  [ 5, 14, 15, 6, 4, 13, 16, 7, 3, 12, 17, 8, 2, 11, 18, 9, 1, 10 ],
  [ 6, 17, 10, 2, 13, 14, 3, 9, 18, 7, 5, 16, 11, 1, 12, 15, 4, 8 ],
  [ 7, 18, 5, 9, 16, 3, 11, 14, 1, 13, 12, 2, 15, 10, 4, 17, 8, 6 ],
  [ 8, 15, 1, 16, 7, 9, 14, 2, 17, 6, 10, 13, 3, 18, 5, 11, 12, 4 ],
  [ 9, 12, 6, 15, 3, 18, 1, 17, 4, 14, 7, 11, 10, 8, 13, 5, 16, 2 ],
  [ 10, 9, 11, 8, 12, 7, 13, 6, 14, 5, 15, 4, 16, 3, 17, 2, 18, 1 ],
  [ 11, 6, 16, 1, 17, 5, 12, 10, 7, 15, 2, 18, 4, 13, 9, 8, 14, 3 ],
  [ 12, 3, 17, 7, 8, 16, 2, 13, 11, 4, 18, 6, 9, 15, 1, 14, 10, 5 ],
  [ 13, 1, 12, 14, 2, 11, 15, 3, 10, 16, 4, 9, 17, 5, 8, 18, 6, 7 ],
  [ 14, 4, 7, 17, 11, 1, 10, 18, 8, 3, 13, 15, 5, 6, 16, 12, 2, 9 ],
  [ 15, 7, 2, 10, 18, 12, 4, 5, 13, 17, 9, 1, 8, 16, 14, 6, 3, 11 ],
  [ 16, 10, 4, 3, 9, 15, 17, 11, 5, 2, 8, 14, 18, 12, 6, 1, 7, 13 ],
  [ 17, 13, 9, 5, 1, 4, 8, 12, 16, 18, 14, 10, 6, 2, 3, 7, 11, 15 ],
  [ 18, 16, 14, 12, 10, 8, 6, 4, 2, 1, 3, 5, 7, 9, 11, 13, 15, 17 ] ]
gap> GroupByMultiplicationTable(last);
```

<group of size 18 with 18 generators>
gap> IsCyclic(last);
true

n=76
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,21,23,25,27,29,31,33,35,37],
[3,9,15,21,27,33,37,31,25,13,7,1,5,11,17,23,29,35],
[5,15,25,35,31,21,11,1,9,29,37,27,17,7,3,13,23,33],
[7,21,35,27,13,1,15,29,33,5,9,23,37,25,11,3,17,31],
[9,27,31,13,5,23,35,17,1,37,21,3,15,33,25,7,11,29],
[11,33,21,1,23,31,9,13,35,3,25,29,7,15,37,17,5,27],
[13,37,11,15,35,9,17,33,7,31,5,21,29,3,23,27,1,25],
[15,31,1,29,17,13,33,3,27,11,35,5,25,21,9,37,7,23],
[17,25,9,33,1,35,7,27,15,23,11,31,3,37,5,29,13,21],
[21,13,29,5,37,3,31,11,23,15,27,7,35,1,33,9,25,17],
[23,7,37,9,21,25,5,35,11,27,3,33,13,17,29,1,31,15],
[25,1,27,23,3,29,21,5,31,7,33,17,9,35,15,11,37,13],
[27,5,17,37,15,7,29,25,3,35,13,9,31,23,1,21,33,11],
[29,11,7,25,33,15,3,21,37,1,17,35,23,5,13,31,27,9],
[31,17,3,11,25,37,23,9,5,33,29,15,1,13,27,35,21,7],
[33,23,13,3,7,17,27,37,29,9,1,11,21,31,35,25,15,5],
[35,29,23,17,11,5,1,7,13,25,31,37,33,27,21,15,9,3],
[37,35,33,31,29,27,25,23,21,17,15,13,11,9,7,5,3,1]]);
[[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18],
  [2, 5, 8, 10, 13, 16, 18, 15, 12, 7, 4, 1, 3, 6, 9, 11, 14, 17],
  [3, 8, 12, 17, 15, 10, 6, 1, 5, 14, 18, 13, 9, 4, 2, 7, 11, 16],
  [4, 10, 17, 13, 7, 1, 8, 14, 16, 3, 5, 11, 18, 12, 6, 2, 9, 15],
  [5, 13, 15, 7, 3, 11, 17, 9, 1, 18, 10, 2, 8, 16, 12, 4, 6, 14],
  [6, 16, 10, 1, 11, 15, 5, 7, 17, 2, 12, 14, 4, 8, 18, 9, 3, 13],
  [7, 18, 6, 8, 17, 5, 9, 16, 4, 15, 3, 10, 14, 2, 11, 13, 1, 12],
  [8, 15, 1, 14, 9, 7, 16, 2, 13, 6, 17, 3, 12, 10, 5, 18, 4, 11],
  [9, 12, 5, 16, 1, 17, 4, 13, 8, 11, 6, 15, 2, 18, 3, 14, 7, 10],
  [10, 7, 14, 3, 18, 2, 15, 6, 11, 8, 13, 4, 17, 1, 16, 5, 12, 9],
  [11, 4, 18, 5, 10, 12, 3, 17, 6, 13, 2, 16, 7, 9, 14, 1, 15, 8],
  [12, 1, 13, 11, 2, 14, 10, 3, 15, 4, 16, 9, 5, 17, 8, 6, 18, 7],
  [13, 3, 9, 18, 8, 4, 14, 12, 2, 17, 7, 5, 15, 11, 1, 10, 16, 6],
  [14, 6, 4, 12, 16, 8, 2, 10, 18, 1, 9, 17, 11, 3, 7, 15, 13, 5],
  [15, 9, 2, 6, 12, 18, 11, 5, 3, 16, 14, 8, 1, 7, 13, 17, 10, 4],
  [16, 11, 7, 2, 4, 9, 13, 18, 14, 5, 1, 6, 10, 15, 17, 12, 8, 3],
  [17, 14, 11, 9, 6, 3, 1, 4, 7, 12, 15, 18, 16, 13, 10, 8, 5, 2],
  [18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1]]
gap> GroupByMultiplicationTable(last);
<group of size 18 with 18 generators>
gap> IsCyclic(last);
true

n=78
gap> ct:=CanonicalCayleyTable([[1,5,7,11,17,19,23,25,29,31,35,37],
[5,25,35,23,7,17,37,31,11,1,19,29],[7,35,29,1,37,23,5,19,31,17,11,25],
[11,23,1,35,31,25,19,37,7,29,5,17],[17,7,37,31,23,11,1,35,25,19,29,5],
[19,17,23,25,11,29,31,7,5,35,37,1],[23,37,5,19,1,31,17,29,35,11,25,7],

[25,31,19,37,35,7,29,1,23,5,17,11],[29,11,31,7,25,5,35,23,17,37,1,19],
[31,1,17,29,19,35,11,5,37,25,7,23],[35,19,11,5,29,37,25,17,1,7,23,31],
[37,29,25,17,5,1,7,11,19,23,31,35]]);
[[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12],
  [2, 8, 11, 7, 3, 5, 12, 10, 4, 1, 6, 9],
  [3, 11, 9, 1, 12, 7, 2, 6, 10, 5, 4, 8],
  [4, 7, 1, 11, 10, 8, 6, 12, 3, 9, 2, 5],
  [5, 3, 12, 10, 7, 4, 1, 11, 8, 6, 9, 2],
  [6, 5, 7, 8, 4, 9, 10, 3, 2, 11, 12, 1],
  [7, 12, 2, 6, 1, 10, 5, 9, 11, 4, 8, 3],
  [8, 10, 6, 12, 11, 3, 9, 1, 7, 2, 5, 4],
  [9, 4, 10, 3, 8, 2, 11, 7, 5, 12, 1, 6],
  [10, 1, 5, 9, 6, 11, 4, 2, 12, 8, 3, 7],
  [11, 6, 4, 2, 9, 12, 8, 5, 1, 3, 7, 10],
  [12, 9, 8, 5, 2, 1, 3, 4, 6, 7, 10, 11]]
gap> GroupByMultiplicationTable(last);
<group of size 12 with 12 generators>
gap> IsCyclic(last);
true

n=80
gap> ct:=CanonicalCayleyTable([[1,3,7,9,11,13,17,19,21,23,27,29,31,33,37,39],
[3,9,21,27,33,39,29,23,17,11,1,7,13,19,31,37],[7,21,31,17,3,11,39,27,13,1,29,37,23,9,19,33],
[9,27,17,1,19,37,7,11,29,33,3,21,39,23,13,31],[11,33,3,19,39,17,27,31,9,13,23,1,21,37,7,29],
[13,39,11,37,17,9,19,7,33,21,31,23,3,29,1,27],[17,29,39,7,27,19,31,3,37,9,21,13,33,1,11,23],
[19,23,27,11,31,7,3,39,1,37,33,9,29,13,17,21],[21,17,13,29,9,33,37,1,39,3,7,31,11,27,23,19],
[23,11,1,33,13,21,9,37,3,31,19,27,7,39,29,17],[27,1,29,3,23,31,21,33,7,19,9,17,37,11,39,13],
[29,7,37,21,1,23,13,9,31,27,17,39,19,3,33,11],[31,13,23,39,21,3,33,29,11,7,37,19,1,17,27,9],
[33,19,9,23,37,29,1,13,27,39,11,3,17,31,21,7],[37,31,19,13,7,1,11,17,23,29,39,33,27,21,9,3],
[39,37,33,31,29,27,23,21,19,17,13,11,9,7,3,1]]);
[[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16],
  [2, 4, 9, 11, 14, 16, 12, 10, 7, 5, 1, 3, 6, 8, 13, 15],
  [3, 9, 13, 7, 2, 5, 16, 11, 6, 1, 12, 15, 10, 4, 8, 14],
  [4, 11, 7, 1, 8, 15, 3, 5, 12, 14, 2, 9, 16, 10, 6, 13],
  [5, 14, 2, 8, 16, 7, 11, 13, 4, 6, 10, 1, 9, 15, 3, 12],
  [6, 16, 5, 15, 7, 4, 8, 3, 14, 9, 13, 10, 2, 12, 1, 11],
  [7, 12, 16, 3, 11, 8, 13, 2, 15, 4, 9, 6, 14, 1, 5, 10],
  [8, 10, 11, 5, 13, 3, 2, 16, 1, 15, 14, 4, 12, 6, 7, 9],
  [9, 7, 6, 12, 4, 14, 15, 1, 16, 2, 3, 13, 5, 11, 10, 8],
  [10, 5, 1, 14, 6, 9, 4, 15, 2, 13, 8, 11, 3, 16, 12, 7],
  [11, 1, 12, 2, 10, 13, 9, 14, 3, 8, 4, 7, 15, 5, 16, 6],
  [12, 3, 15, 9, 1, 10, 6, 4, 13, 11, 7, 16, 8, 2, 14, 5],
  [13, 6, 10, 16, 9, 2, 14, 12, 5, 3, 15, 8, 1, 7, 11, 4],
  [14, 8, 4, 10, 15, 12, 1, 6, 11, 16, 5, 2, 7, 13, 9, 3],
  [15, 13, 8, 6, 3, 1, 5, 7, 10, 12, 16, 14, 11, 9, 4, 2],
  [16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1]]
gap> GroupByMultiplicationTable(last);
<group of size 16 with 16 generators>
gap> IsCyclic(last);
false

n=82

```
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39],
[3,9,15,21,27,33,39,37,31,25,19,13,7,1,5,11,17,23,29,35],
[5,15,25,35,37,27,17,7,3,13,23,33,39,29,19,9,1,11,21,31],
[7,21,35,33,19,5,9,23,37,31,17,3,11,25,39,29,15,1,13,27],
[9,27,37,19,1,17,35,29,11,7,25,39,21,3,15,33,31,13,5,23],
[11,33,27,5,17,39,21,1,23,37,15,7,29,31,9,13,35,25,3,19],
[13,39,17,9,35,21,5,31,25,1,27,29,3,23,33,7,19,37,11,15],
[15,37,7,23,29,1,31,21,9,39,13,17,35,5,25,27,3,33,19,11],
[17,31,3,37,11,23,25,9,39,5,29,19,15,33,1,35,13,21,27,7],
[19,25,13,31,7,37,1,39,5,33,11,27,17,21,23,15,29,9,35,3],
[21,19,23,17,25,15,27,13,29,11,31,9,33,7,35,5,37,3,39,1],
[23,13,33,3,39,7,29,17,19,27,9,37,1,35,11,25,21,15,31,5],
[25,7,39,11,21,29,3,35,15,17,33,1,31,19,13,37,5,27,23,9],
[27,1,29,25,3,31,23,5,33,21,7,35,19,9,37,17,11,39,15,13],
[29,5,19,39,15,9,33,25,1,23,35,11,13,37,21,3,27,31,7,17],
[31,11,9,29,33,13,7,27,35,15,5,25,37,17,3,23,39,19,1,21],
[33,17,1,15,31,35,19,3,13,29,37,21,5,11,27,39,23,7,9,25],
[35,23,11,1,13,25,37,33,21,9,3,15,27,39,31,19,7,5,17,29],
[37,29,21,13,5,3,11,19,27,35,39,31,23,15,7,1,9,17,25,33],
[39,35,31,27,23,19,15,11,7,3,1,5,9,13,17,21,25,29,33,37]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 ],
  [ 2, 5, 8, 11, 14, 17, 20, 19, 16, 13, 10, 7, 4, 1, 3, 6, 9, 12, 15, 18 ],
  [ 3, 8, 13, 18, 19, 14, 9, 4, 2, 7, 12, 17, 20, 15, 10, 5, 1, 6, 11, 16 ],
  [ 4, 11, 18, 17, 10, 3, 5, 12, 19, 16, 9, 2, 6, 13, 20, 15, 8, 1, 7, 14 ],
  [ 5, 14, 19, 10, 1, 9, 18, 15, 6, 4, 13, 20, 11, 2, 8, 17, 16, 7, 3, 12 ],
  [ 6, 17, 14, 3, 9, 20, 11, 1, 12, 19, 8, 4, 15, 16, 5, 7, 18, 13, 2, 10 ],
  [ 7, 20, 9, 5, 18, 11, 3, 16, 13, 1, 14, 15, 2, 12, 17, 4, 10, 19, 6, 8 ],
  [ 8, 19, 4, 12, 15, 1, 16, 11, 5, 20, 7, 9, 18, 3, 13, 14, 2, 17, 10, 6 ],
  [ 9, 16, 2, 19, 6, 12, 13, 5, 20, 3, 15, 10, 8, 17, 1, 18, 7, 11, 14, 4 ],
  [ 10, 13, 7, 16, 4, 19, 1, 20, 3, 17, 6, 14, 9, 11, 12, 8, 15, 5, 18, 2 ],
  [ 11, 10, 12, 9, 13, 8, 14, 7, 15, 6, 16, 5, 17, 4, 18, 3, 19, 2, 20, 1 ],
  [ 12, 7, 17, 2, 20, 4, 15, 9, 10, 14, 5, 19, 1, 18, 6, 13, 11, 8, 16, 3 ],
  [ 13, 4, 20, 6, 11, 15, 2, 18, 8, 9, 17, 1, 16, 10, 7, 19, 3, 14, 12, 5 ],
  [ 14, 1, 15, 13, 2, 16, 12, 3, 17, 11, 4, 18, 10, 5, 19, 9, 6, 20, 8, 7 ],
  [ 15, 3, 10, 20, 8, 5, 17, 13, 1, 12, 18, 6, 7, 19, 11, 2, 14, 16, 4, 9 ],
  [ 16, 6, 5, 15, 17, 7, 4, 14, 18, 8, 3, 13, 19, 9, 2, 12, 20, 10, 1, 11 ],
  [ 17, 9, 1, 8, 16, 18, 10, 2, 7, 15, 19, 11, 3, 6, 14, 20, 12, 4, 5, 13 ],
  [ 18, 12, 6, 1, 7, 13, 19, 17, 11, 5, 2, 8, 14, 20, 16, 10, 4, 3, 9, 15 ],
  [ 19, 15, 11, 7, 3, 2, 6, 10, 14, 18, 20, 16, 12, 8, 4, 1, 5, 9, 13, 17 ],
  [ 20, 18, 16, 14, 12, 10, 8, 6, 4, 2, 1, 3, 5, 7, 9, 11, 13, 15, 17, 19 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 20 with 20 generators>
gap> IsCyclic(last);
true

n=84
gap> ct:=CanonicalCayleyTable([[1,5,11,13,17,19,23,25,29,31,37,41],
[5,25,29,19,1,11,31,41,23,13,17,37],[11,29,37,25,19,41,1,23,17,5,13,31],
[13,19,25,1,31,5,37,11,41,17,23,29],[17,1,19,31,37,13,29,5,11,23,41,25],
[19,11,41,5,13,25,17,29,37,1,31,23],[23,31,1,37,29,17,25,13,5,41,11,19],
[25,41,23,11,5,29,13,37,31,19,1,17],[29,23,17,41,11,37,5,31,1,25,19,13],
[31,13,5,17,23,1,41,19,25,37,29,11],[37,17,13,23,41,31,11,1,19,29,25,5],
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[41,37,31,29,25,23,19,17,13,11,5,1]]);
[[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12],
  [2, 8, 9, 6, 1, 3, 10, 12, 7, 4, 5, 11],
  [3, 9, 11, 8, 6, 12, 1, 7, 5, 2, 4, 10],
  [4, 6, 8, 1, 10, 2, 11, 3, 12, 5, 7, 9],
  [5, 1, 6, 10, 11, 4, 9, 2, 3, 7, 12, 8],
  [6, 3, 12, 2, 4, 8, 5, 9, 11, 1, 10, 7],
  [7, 10, 1, 11, 9, 5, 8, 4, 2, 12, 3, 6],
  [8, 12, 7, 3, 2, 9, 4, 11, 10, 6, 1, 5],
  [9, 7, 5, 12, 3, 11, 2, 10, 1, 8, 6, 4],
  [10, 4, 2, 5, 7, 1, 12, 6, 8, 11, 9, 3],
  [11, 5, 4, 7, 12, 10, 3, 1, 6, 9, 8, 2],
  [12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1]]
gap> GroupByMultiplicationTable(last);
<group of size 12 with 12 generators>
gap> IsCyclic(last);
false

n=86
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41],
[3,9,15,21,27,33,39,41,35,29,23,17,11,5,1,7,13,19,25,31,37],
[5,15,25,35,41,31,21,11,1,9,19,29,39,37,27,17,7,3,13,23,33],
[7,21,35,37,23,9,5,19,33,39,25,11,3,17,31,41,27,13,1,15,29],
[9,27,41,23,5,13,31,37,19,1,17,35,33,15,3,21,39,29,11,7,25],
[11,33,31,9,13,35,29,7,15,37,27,5,17,39,25,3,19,41,23,1,21],
[13,39,21,5,31,29,3,23,37,11,15,41,19,7,33,27,1,25,35,9,17],
[15,41,11,19,37,7,23,33,3,27,29,1,31,25,5,35,21,9,39,17,13],
[17,35,1,33,19,15,37,3,31,21,13,39,5,29,23,11,41,7,27,25,9],
[19,29,9,39,1,37,11,27,21,17,31,7,41,3,35,13,25,23,15,33,5],
[21,23,19,25,17,27,15,29,13,31,11,33,9,35,7,37,5,39,3,41,1],
[23,17,29,11,35,5,41,1,39,7,33,13,27,19,21,25,15,31,9,37,3],
[25,11,39,3,33,17,19,31,5,41,9,27,23,13,37,1,35,15,21,29,7],
[27,5,37,17,15,39,7,25,29,3,35,19,13,41,9,23,31,1,33,21,11],
[29,1,27,31,3,25,33,5,23,35,7,21,37,9,19,39,11,17,41,13,15],
[31,7,17,41,21,3,27,35,11,13,37,25,1,23,39,15,9,33,29,5,19],
[33,13,7,27,39,19,1,21,41,25,5,15,35,31,11,9,29,37,17,3,23],
[35,19,3,13,29,41,25,9,7,23,39,31,15,1,17,33,37,21,5,11,27],
[37,25,13,1,11,23,35,39,27,15,3,9,21,33,41,29,17,5,7,19,31],
[39,31,23,15,7,1,9,17,25,33,41,37,29,21,13,5,3,11,19,27,35],
[41,37,33,29,25,21,17,13,9,5,1,3,7,11,15,19,23,27,31,35,39]]);
[[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21],
  [2, 5, 8, 11, 14, 17, 20, 21, 18, 15, 12, 9, 6, 3, 1, 4, 7, 10, 13, 16, 19],
  [3, 8, 13, 18, 21, 16, 11, 6, 1, 5, 10, 15, 20, 19, 14, 9, 4, 2, 7, 12, 17],
  [4, 11, 18, 19, 12, 5, 3, 10, 17, 20, 13, 6, 2, 9, 16, 21, 14, 7, 1, 8, 15],
  [5, 14, 21, 12, 3, 7, 16, 19, 10, 1, 9, 18, 17, 8, 2, 11, 20, 15, 6, 4, 13],
  [6, 17, 16, 5, 7, 18, 15, 4, 8, 19, 14, 3, 9, 20, 13, 2, 10, 21, 12, 1, 11],
  [7, 20, 11, 3, 16, 15, 2, 12, 19, 6, 8, 21, 10, 4, 17, 14, 1, 13, 18, 5, 9],
  [8, 21, 6, 10, 19, 4, 12, 17, 2, 14, 15, 1, 16, 13, 3, 18, 11, 5, 20, 9, 7],
  [9, 18, 1, 17, 10, 8, 19, 2, 16, 11, 7, 20, 3, 15, 12, 6, 21, 4, 14, 13, 5],
  [10, 15, 5, 20, 1, 19, 6, 14, 11, 9, 16, 4, 21, 2, 18, 7, 13, 12, 8, 17, 3],
  [11, 12, 10, 13, 9, 14, 8, 15, 7, 16, 6, 17, 5, 18, 4, 19, 3, 20, 2, 21, 1],
  [12, 9, 15, 6, 18, 3, 21, 1, 20, 4, 17, 7, 14, 10, 11, 13, 8, 16, 5, 19, 2],

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  [ 13, 6, 20, 2, 17, 9, 10, 16, 3, 21, 5, 14, 12, 7, 19, 1, 18, 8, 11, 15, 4 ],
  [ 14, 3, 19, 9, 8, 20, 4, 13, 15, 2, 18, 10, 7, 21, 5, 12, 16, 1, 17, 11, 6 ],
  [ 15, 1, 14, 16, 2, 13, 17, 3, 12, 18, 4, 11, 19, 5, 10, 20, 6, 9, 21, 7, 8 ],
  [ 16, 4, 9, 21, 11, 2, 14, 18, 6, 7, 19, 13, 1, 12, 20, 8, 5, 17, 15, 3, 10 ],
  [ 17, 7, 4, 14, 20, 10, 1, 11, 21, 13, 3, 8, 18, 16, 6, 5, 15, 19, 9, 2, 12 ],
  [ 18, 10, 2, 7, 15, 21, 13, 5, 4, 12, 20, 16, 8, 1, 9, 17, 19, 11, 3, 6, 14 ],
  [ 19, 13, 7, 1, 6, 12, 18, 20, 14, 8, 2, 5, 11, 17, 21, 15, 9, 3, 4, 10, 16 ],
  [ 20, 16, 12, 8, 4, 1, 5, 9, 13, 17, 21, 19, 15, 11, 7, 3, 2, 6, 10, 14, 18 ],
  [ 21, 19, 17, 15, 13, 11, 9, 7, 5, 3, 1, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20 ]
 ]
gap> GroupByMultiplicationTable(last);
<group of size 21 with 21 generators>
gap> IsCyclic(last);
true

n=88
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,13,15,17,19,21,23,25,27,29,31,35,37,39,41,43],
[3,9,15,21,27,39,43,37,31,25,19,13,7,1,5,17,23,29,35,41],
[5,15,25,35,43,23,13,3,7,17,27,37,41,31,21,1,9,19,29,39],
[7,21,35,39,25,3,17,31,43,29,15,1,13,27,41,19,5,9,23,37],
[9,27,43,25,7,29,41,23,5,13,31,39,21,3,15,37,19,1,17,35],
[13,39,23,3,29,7,19,43,17,9,35,27,1,25,37,15,41,21,5,31],
[15,43,13,17,41,19,39,9,21,37,7,23,35,5,25,3,27,31,1,29],
[17,37,3,31,23,43,9,25,29,5,39,15,19,35,1,21,13,41,7,27],
[19,31,7,43,5,17,21,29,9,41,3,35,15,23,27,39,1,37,13,25],
[21,25,17,29,13,9,37,5,41,1,43,3,39,7,35,31,15,27,19,23],
[23,19,27,15,31,35,7,39,3,43,1,41,5,37,9,13,29,17,25,21],
[25,13,37,1,39,27,23,15,35,3,41,9,29,21,17,5,43,7,31,19],
[27,7,41,13,21,1,35,19,15,39,5,29,25,9,43,23,31,3,37,17],
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[37,23,9,5,19,41,27,13,1,15,29,43,31,17,3,25,39,35,21,7],
[39,29,19,9,1,21,31,41,37,27,17,7,3,13,23,43,35,25,15,5],
[41,35,29,23,17,5,1,7,13,19,25,31,37,43,39,27,21,15,9,3],
[43,41,39,37,35,31,29,27,25,23,21,19,17,15,13,9,7,5,3,1]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 ],
  [ 2, 5, 7, 10, 13, 18, 20, 17, 15, 12, 9, 6, 4, 1, 3, 8, 11, 14, 16, 19 ],
  [ 3, 7, 12, 16, 20, 11, 6, 2, 4, 8, 13, 17, 19, 15, 10, 1, 5, 9, 14, 18 ],
  [ 4, 10, 16, 18, 12, 2, 8, 15, 20, 14, 7, 1, 6, 13, 19, 9, 3, 5, 11, 17 ],
  [ 5, 13, 20, 12, 4, 14, 19, 11, 3, 6, 15, 18, 10, 2, 7, 17, 9, 1, 8, 16 ],
  [ 6, 18, 11, 2, 14, 4, 9, 20, 8, 5, 16, 13, 1, 12, 17, 7, 19, 10, 3, 15 ],
  [ 7, 20, 6, 8, 19, 9, 18, 5, 10, 17, 4, 11, 16, 3, 12, 2, 13, 15, 1, 14 ],
  [ 8, 17, 2, 15, 11, 20, 5, 12, 14, 3, 18, 7, 9, 16, 1, 10, 6, 19, 4, 13 ],
  [ 9, 15, 4, 20, 3, 8, 10, 14, 5, 19, 2, 16, 7, 11, 13, 18, 1, 17, 6, 12 ],
  [ 10, 12, 8, 14, 6, 5, 17, 3, 19, 1, 20, 2, 18, 4, 16, 15, 7, 13, 9, 11 ],
  [ 11, 9, 13, 7, 15, 16, 4, 18, 2, 20, 1, 19, 3, 17, 5, 6, 14, 8, 12, 10 ],
  [ 12, 6, 17, 1, 18, 13, 11, 7, 16, 2, 19, 5, 14, 10, 8, 3, 20, 4, 15, 9 ],
  [ 13, 4, 19, 6, 10, 1, 16, 9, 7, 18, 3, 14, 12, 5, 20, 11, 15, 2, 17, 8 ],
  [ 14, 1, 15, 13, 2, 12, 3, 16, 11, 4, 17, 10, 5, 18, 9, 19, 8, 6, 20, 7 ],
  [ 15, 3, 10, 19, 7, 17, 12, 1, 13, 16, 5, 8, 20, 9, 4, 14, 2, 11, 18, 6 ],
  [ 16, 8, 1, 9, 17, 7, 2, 10, 18, 15, 6, 3, 11, 19, 14, 4, 12, 20, 13, 5 ],
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  [ 17, 11, 5, 3, 9, 19, 13, 6, 1, 7, 14, 20, 15, 8, 2, 12, 18, 16, 10, 4 ],
  [ 18, 14, 9, 5, 1, 10, 15, 19, 17, 13, 8, 4, 2, 6, 11, 20, 16, 12, 7, 3 ],
  [ 19, 16, 14, 11, 8, 3, 1, 4, 6, 9, 12, 15, 17, 20, 18, 13, 10, 7, 5, 2 ],
  [ 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 20 with 20 generators>
gap> IsCyclic(last);
false

n=90
gap> ct:=CanonicalCayleyTable([[1,7,11,13,17,19,23,29,31,37,41,43],
[7,41,13,1,29,43,19,23,37,11,17,31],[11,13,31,37,7,29,17,41,19,43,1,23],
[13,1,37,11,41,23,29,17,43,31,7,19],[17,29,7,41,19,37,31,43,13,1,23,11],
[19,43,29,23,37,1,13,11,41,17,31,7],[23,19,17,29,31,13,11,37,7,41,43,1],
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[37,11,43,31,1,17,41,7,23,19,13,29],[41,17,1,7,23,31,43,19,11,13,29,37],
[43,31,23,19,11,7,1,13,17,29,37,41]]);
[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 ],
  [ 2, 11, 4, 1, 8, 12, 6, 7, 10, 3, 5, 9 ],
  [ 3, 4, 9, 10, 2, 8, 5, 11, 6, 12, 1, 7 ],
  [ 4, 1, 10, 3, 11, 7, 8, 5, 12, 9, 2, 6 ],
  [ 5, 8, 2, 11, 6, 10, 9, 12, 4, 1, 7, 3 ],
  [ 6, 12, 8, 7, 10, 1, 4, 3, 11, 5, 9, 2 ],
  [ 7, 6, 5, 8, 9, 4, 3, 10, 2, 11, 12, 1 ],
  [ 8, 7, 11, 5, 12, 3, 10, 9, 1, 2, 6, 4 ],
  [ 9, 10, 6, 12, 4, 11, 2, 1, 8, 7, 3, 5 ],
  [ 10, 3, 12, 9, 1, 5, 11, 2, 7, 6, 4, 8 ],
  [ 11, 5, 1, 2, 7, 9, 12, 6, 3, 4, 8, 10 ],
  [ 12, 9, 7, 6, 3, 2, 1, 4, 5, 8, 10, 11 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 12 with 12 generators>
gap> IsCyclic(last);
true

n=92
gap> ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,19,21,25,27,29,31,33,35,37,39,41,43,45],
[3,9,15,21,27,33,39,45,41,35,29,17,11,5,1,7,13,19,25,31,37,43],
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      12, 15, 18, 21 ],
  [ 3, 8, 12, 17, 22, 18, 13, 9, 4, 2, 7, 16, 21, 19, 14, 10, 5, 1, 6, 11, 15,
      20 ], [ 4, 11, 17, 21, 14, 8, 1, 7, 13, 20, 18, 5, 3, 10, 16, 22, 15, 9,
      2, 6, 12, 19 ],
  [ 5, 13, 22, 14, 6, 4, 12, 21, 15, 7, 3, 20, 16, 8, 2, 11, 19, 17, 9, 1, 10,
      18 ], [ 6, 16, 18, 8, 4, 14, 20, 10, 2, 12, 22, 1, 11, 21, 13, 3, 9, 19,
      15, 5, 7, 17 ],
  [ 7, 19, 13, 1, 12, 20, 8, 6, 18, 14, 2, 21, 9, 5, 17, 15, 3, 11, 22, 10, 4,
      16 ], [ 8, 22, 9, 7, 21, 10, 6, 20, 11, 5, 19, 4, 18, 12, 3, 17, 13, 2,
      16, 14, 1, 15 ],
  [ 9, 20, 4, 13, 15, 2, 18, 11, 7, 22, 6, 17, 1, 16, 12, 5, 21, 8, 10, 19, 3,
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      3, 21, 6, 13 ],
  [ 11, 14, 7, 18, 3, 22, 2, 19, 6, 15, 10, 13, 8, 17, 4, 21, 1, 20, 5, 16, 9,
      12 ], [ 12, 9, 16, 5, 20, 1, 21, 4, 17, 8, 13, 10, 15, 6, 19, 2, 22, 3,
      18, 7, 14, 11 ],
  [ 13, 6, 21, 3, 16, 11, 9, 18, 1, 19, 8, 15, 4, 22, 5, 14, 12, 7, 20, 2, 17,
      10 ], [ 14, 3, 19, 10, 8, 21, 5, 12, 16, 1, 17, 6, 22, 7, 11, 18, 2, 15,
      13, 4, 20, 9 ],
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      8 ], [ 16, 4, 10, 22, 11, 3, 15, 17, 5, 9, 21, 2, 14, 18, 6, 8, 20, 12,
      1, 13, 19, 7 ],
  [ 17, 7, 5, 15, 19, 9, 3, 13, 21, 11, 1, 22, 12, 2, 10, 20, 14, 4, 8, 18, 16,
      6 ], [ 18, 10, 1, 9, 17, 19, 11, 2, 8, 16, 20, 3, 7, 15, 21, 12, 4, 6,
      14, 22, 13, 5 ],
  [ 19, 12, 6, 2, 9, 15, 22, 16, 10, 3, 5, 18, 20, 13, 7, 1, 8, 14, 21, 17, 11,
      4 ], [ 20, 15, 11, 6, 1, 5, 10, 14, 19, 21, 16, 7, 2, 4, 9, 13, 18, 22,
      17, 12, 8, 3 ],
  [ 21, 18, 15, 12, 10, 7, 4, 1, 3, 6, 9, 14, 17, 20, 22, 19, 16, 13, 11, 8, 5,
      2 ], [ 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5,
      4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 22 with 22 generators>
gap> IsCyclic(last);
true

n=94
gap>
ct:=CanonicalCayleyTable([[1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45],
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[13,39,29,3,23,45,19,7,33,35,9,17,43,25,1,27,41,15,11,37,31,5,21],
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[15,45,19,11,41,23,7,37,27,3,33,31,1,29,35,5,25,39,9,21,43,13,17],
[17,43,9,25,35,1,33,27,7,41,19,15,45,11,23,37,3,31,29,5,39,21,13],
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[35,11,13,37,33,9,15,39,31,7,17,41,29,5,19,43,27,3,21,45,25,1,23],
[37,17,3,23,43,31,11,9,29,45,25,5,15,35,39,19,1,21,41,33,13,7,27],
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[41,29,17,5,7,19,31,43,39,27,15,3,9,21,33,45,37,25,13,1,11,23,35],
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[8, 23, 10, 6, 21, 12, 4, 19, 14, 2, 17, 16, 1, 15, 18, 3, 13, 20, 5, 11, 22, 7, 9],
[9, 22, 5, 13, 18, 1, 17, 14, 4, 21, 10, 8, 23, 6, 12, 19, 2, 16, 15, 3, 20, 11, 7], [10, 19, 1, 20, 9, 11, 18, 2, 21, 8, 12, 17, 3, 22, 7, 13, 16, 4, 23, 6, 14, 15, 5],
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[13, 10, 16, 7, 19, 4, 22, 1, 23, 3, 20, 6, 17, 9, 14, 12, 11, 15, 8, 18, 5, 21, 2],
[14, 7, 21, 1, 20, 8, 13, 15, 6, 22, 2, 19, 9, 12, 16, 5, 23, 3, 18, 10, 11, 17, 4],
[15, 4, 22, 8, 11, 19, 1, 18, 12, 7, 23, 5, 14, 16, 3, 21, 9, 10, 20, 2, 17, 13, 6], [16, 1, 17, 15, 2, 18, 14, 3, 19, 13, 4, 20, 12, 5, 21, 11, 6, 22, 10, 7, 23, 9, 8],
[17, 3, 12, 22, 8, 7, 21, 13, 2, 16, 18, 4, 11, 23, 9, 6, 20, 14, 1, 15, 19, 5, 10],
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[21, 15, 9, 3, 4, 10, 16, 22, 20, 14, 8, 2, 5, 11, 17, 23, 19, 13, 7, 1, 6,

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    12, 18 ], [ 22, 18, 14, 10, 6, 2, 3, 7, 11, 15, 19, 23, 21, 17, 13, 9, 5,
    1, 4, 8, 12, 16, 20 ],
  [ 23, 21, 19, 17, 15, 13, 11, 9, 7, 5, 3, 1, 2, 4, 6, 8, 10, 12, 14, 16, 18,
    20, 22 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 23 with 23 generators>
gap> IsCyclic(last);
true

n=96
gap> ct:=CanonicalCayleyTable([[1,5,7,11,13,17,19,23,25,29,31,35,37,41,43,47],
[5,25,35,41,31,11,1,19,29,47,37,17,7,13,23,43],[7,35,47,19,5,23,37,31,17,11,25,43,29,1,13,41],
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[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 ],
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  [ 5, 11, 2, 16, 8, 10, 14, 4, 13, 3, 7, 9, 1, 15, 6, 12 ],
  [ 6, 4, 8, 2, 10, 1, 12, 3, 14, 5, 16, 7, 15, 9, 13, 11 ],
  [ 7, 1, 13, 6, 14, 12, 8, 15, 2, 9, 5, 3, 11, 4, 16, 10 ],
  [ 8, 7, 11, 12, 4, 3, 15, 16, 1, 2, 14, 13, 5, 6, 10, 9 ],
  [ 9, 10, 6, 5, 13, 14, 2, 1, 16, 15, 3, 4, 12, 11, 7, 8 ],
  [ 10, 16, 4, 11, 3, 5, 9, 2, 15, 8, 12, 14, 6, 13, 1, 7 ],
  [ 11, 13, 9, 15, 7, 16, 5, 14, 3, 12, 1, 10, 2, 8, 4, 6 ],
  [ 12, 6, 15, 1, 9, 7, 3, 13, 4, 14, 10, 8, 16, 2, 11, 5 ],
  [ 13, 3, 10, 8, 1, 15, 11, 5, 12, 6, 2, 16, 9, 7, 14, 4 ],
  [ 14, 5, 1, 10, 15, 9, 4, 6, 11, 13, 8, 2, 7, 16, 12, 3 ],
  [ 15, 8, 5, 3, 6, 13, 16, 10, 7, 1, 4, 11, 14, 12, 9, 2 ],
  [ 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 16 with 16 generators>
gap> IsCyclic(last);
false

n=98
gap> ct:=CanonicalCayleyTable([[1,3,5,9,11,13,15,17,19,23,25,27,29,31,33,37,39,41,43,45,47],
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  [ 10, 13, 8, 5, 18, 3, 21, 1, 20, 17, 6, 15, 9, 12, 11, 14, 7, 16, 4, 19, 2 ],
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  [ 13, 5, 21, 15, 11, 7, 19, 2, 16, 9, 17, 1, 18, 8, 10, 3, 20, 6, 12, 14, 4 ],
  [ 14, 3, 18, 7, 21, 5, 11, 16, 1, 12, 4, 20, 8, 9, 19, 13, 15, 2, 17, 10, 6 ],
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  [ 16, 6, 5, 17, 7, 4, 15, 18, 8, 14, 19, 9, 3, 13, 20, 2, 12, 21, 10, 1, 11 ],
  [ 17, 9, 1, 18, 16, 8, 2, 10, 19, 7, 3, 11, 20, 15, 6, 12, 21, 14, 5, 4, 13 ],
  [ 18, 11, 4, 10, 17, 19, 12, 5, 3, 16, 20, 13, 6, 2, 9, 21, 14, 7, 1, 8, 15 ],
  [ 19, 14, 9, 3, 8, 13, 18, 20, 15, 4, 2, 7, 12, 17, 21, 10, 5, 1, 6, 11, 16 ],
  [ 20, 16, 13, 6, 3, 2, 5, 9, 12, 19, 21, 17, 14, 10, 7, 1, 4, 8, 11, 15, 18 ],
  [ 21, 19, 17, 14, 12, 10, 9, 7, 5, 2, 1, 3, 4, 6, 8, 11, 13, 15, 16, 18, 20 ]
 ]
gap> GroupByMultiplicationTable(last);
<group of size 21 with 21 generators>
gap> IsCyclic(last);
true

n=100
gap> ct:=CanonicalCayleyTable([[1,3,7,9,11,13,17,19,21,23,27,29,31,33,37,39,41,43,47,49],
[3,9,21,27,33,39,49,43,37,31,19,13,7,1,11,17,23,29,41,47],
[7,21,49,37,23,9,19,33,47,39,11,3,17,31,41,27,13,1,29,43],
[9,27,37,19,1,17,47,29,11,7,43,39,21,3,33,49,31,13,23,41],
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[13,39,9,17,43,31,21,47,27,1,49,23,3,29,19,7,33,41,11,37],
[17,49,19,47,13,21,11,23,43,9,41,7,27,39,29,37,3,31,1,33],
[19,43,33,29,9,47,23,39,1,37,13,49,11,27,3,41,21,17,7,31],
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[23,31,39,7,47,1,9,37,17,29,21,33,13,41,49,3,43,11,19,27],
[27,19,11,43,3,49,41,13,33,21,29,17,37,9,1,47,7,39,31,23],
[29,13,3,39,19,23,7,49,9,33,17,41,1,43,27,31,11,47,37,21],
[31,7,17,21,41,3,27,11,49,13,37,1,39,23,47,9,29,33,43,19],
[33,1,31,3,37,29,39,27,7,41,9,43,23,11,21,13,47,19,49,17],
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[ [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 ],
  [ 2, 4, 9, 11, 14, 16, 20, 18, 15, 13, 8, 6, 3, 1, 5, 7, 10, 12, 17, 19 ],
  [ 3, 9, 20, 15, 10, 4, 8, 14, 19, 16, 5, 2, 7, 13, 17, 11, 6, 1, 12, 18 ],
  [ 4, 11, 15, 8, 1, 7, 19, 12, 5, 3, 18, 16, 9, 2, 14, 20, 13, 6, 10, 17 ],
  [ 5, 14, 10, 1, 9, 18, 6, 4, 13, 19, 2, 8, 17, 15, 3, 12, 20, 11, 7, 16 ],
  [ 6, 16, 4, 7, 18, 13, 9, 19, 11, 1, 20, 10, 2, 12, 8, 3, 14, 17, 5, 15 ],
  [ 7, 20, 8, 19, 6, 9, 5, 10, 18, 4, 17, 3, 11, 16, 12, 15, 2, 13, 1, 14 ],
  [ 8, 18, 14, 12, 4, 19, 10, 16, 1, 15, 6, 20, 5, 11, 2, 17, 9, 7, 3, 13 ],
  [ 9, 15, 19, 5, 13, 11, 18, 1, 17, 7, 14, 4, 20, 3, 10, 8, 16, 2, 6, 12 ],
  [ 10, 13, 16, 3, 19, 1, 4, 15, 7, 12, 9, 14, 6, 17, 20, 2, 18, 5, 8, 11 ],
  [ 11, 8, 5, 18, 2, 20, 17, 6, 14, 9, 12, 7, 15, 4, 1, 19, 3, 16, 13, 10 ],
  [ 12, 6, 2, 16, 8, 10, 3, 20, 4, 14, 7, 17, 1, 18, 11, 13, 5, 19, 15, 9 ],
  [ 13, 3, 7, 9, 17, 2, 11, 5, 20, 6, 15, 1, 16, 10, 19, 4, 12, 14, 18, 8 ],
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  [ 17, 10, 6, 13, 20, 14, 2, 9, 16, 18, 3, 5, 12, 19, 7, 1, 8, 15, 11, 4 ],
  [ 18, 12, 1, 6, 11, 17, 13, 7, 2, 5, 16, 19, 14, 8, 4, 10, 15, 20, 9, 3 ],
  [ 19, 17, 12, 10, 7, 5, 1, 3, 6, 8, 13, 15, 18, 20, 16, 14, 11, 9, 4, 2 ],
  [ 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 ] ]
gap> GroupByMultiplicationTable(last);
<group of size 20 with 20 generators>
gap> IsCyclic(last);
true
```