OEIS A219889

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Abstract. OEIS A219889 counts 2-regular digraphs with n nodes. We illustrate these for $n <= 7$. See A007107 for the labeled graphs.

Loops (edges that lead from a node back to itself) and multiedges (more than one edge with the same heading between a pair of nodes) in the digraphs are not allowed. The indegree and outdegree at each node is 2.

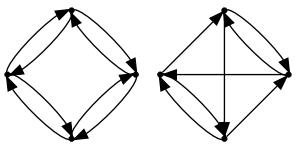
One needs $n \geq 6$ to construct this type of digraphs with more than one component (not weekly connected graphs).

Through the inverse Euler transform and then a Multiset Transformation we obtain the table of 2-regular digraphs (without loops or multiedges) with k components:

	1	2	3	4
3	1			
4	2			
5	5			
6	22	1		
7	90	2		
8	616	8		
9	4988	32	1	
10	46883	149	2	
11	493406	906	8	
12	5712809	6923	36	1
13	71909602	61919	164	2

1 graph on 3 nodes

2 graphs on 4 nodes



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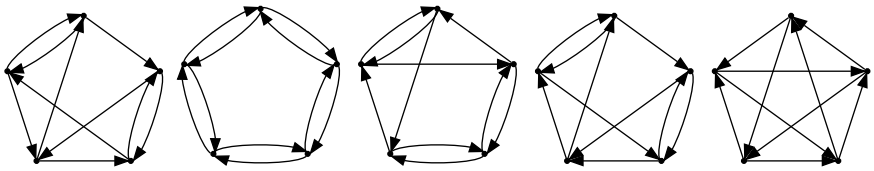
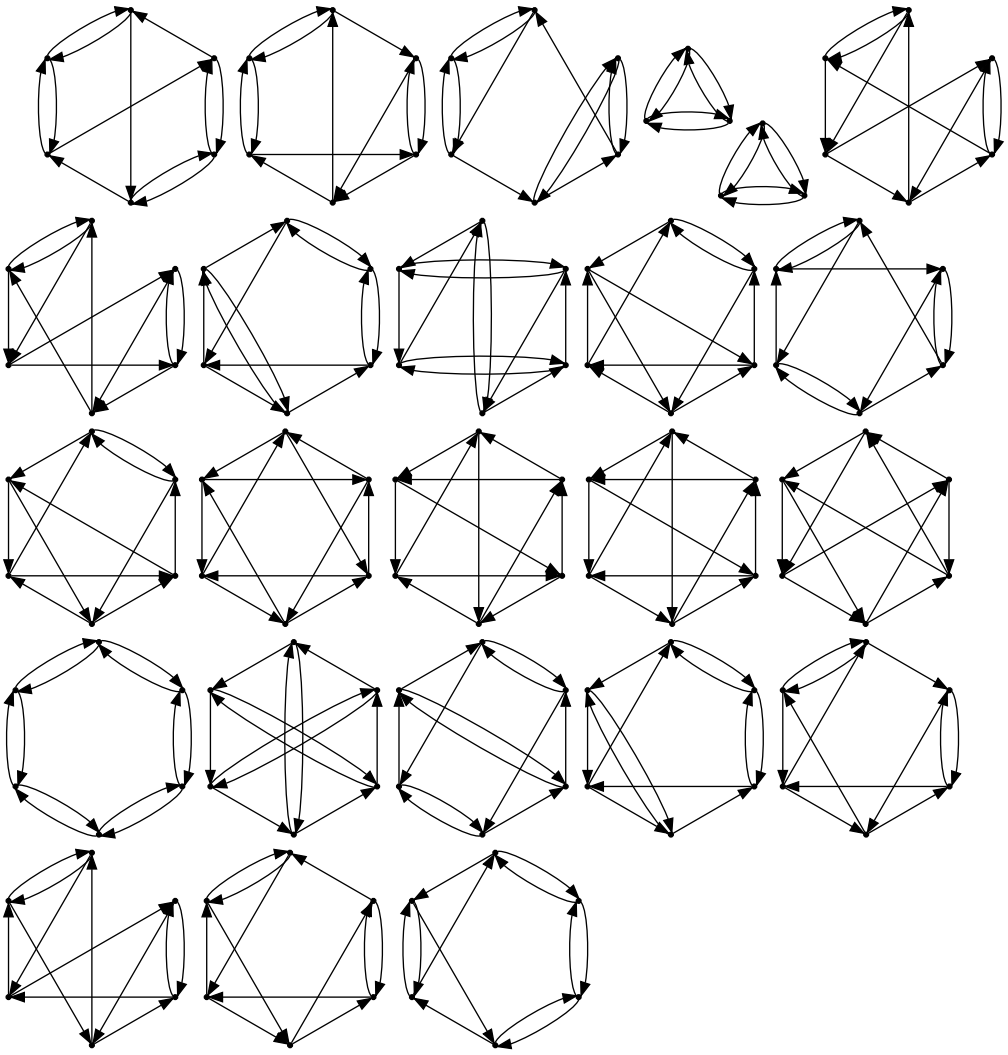
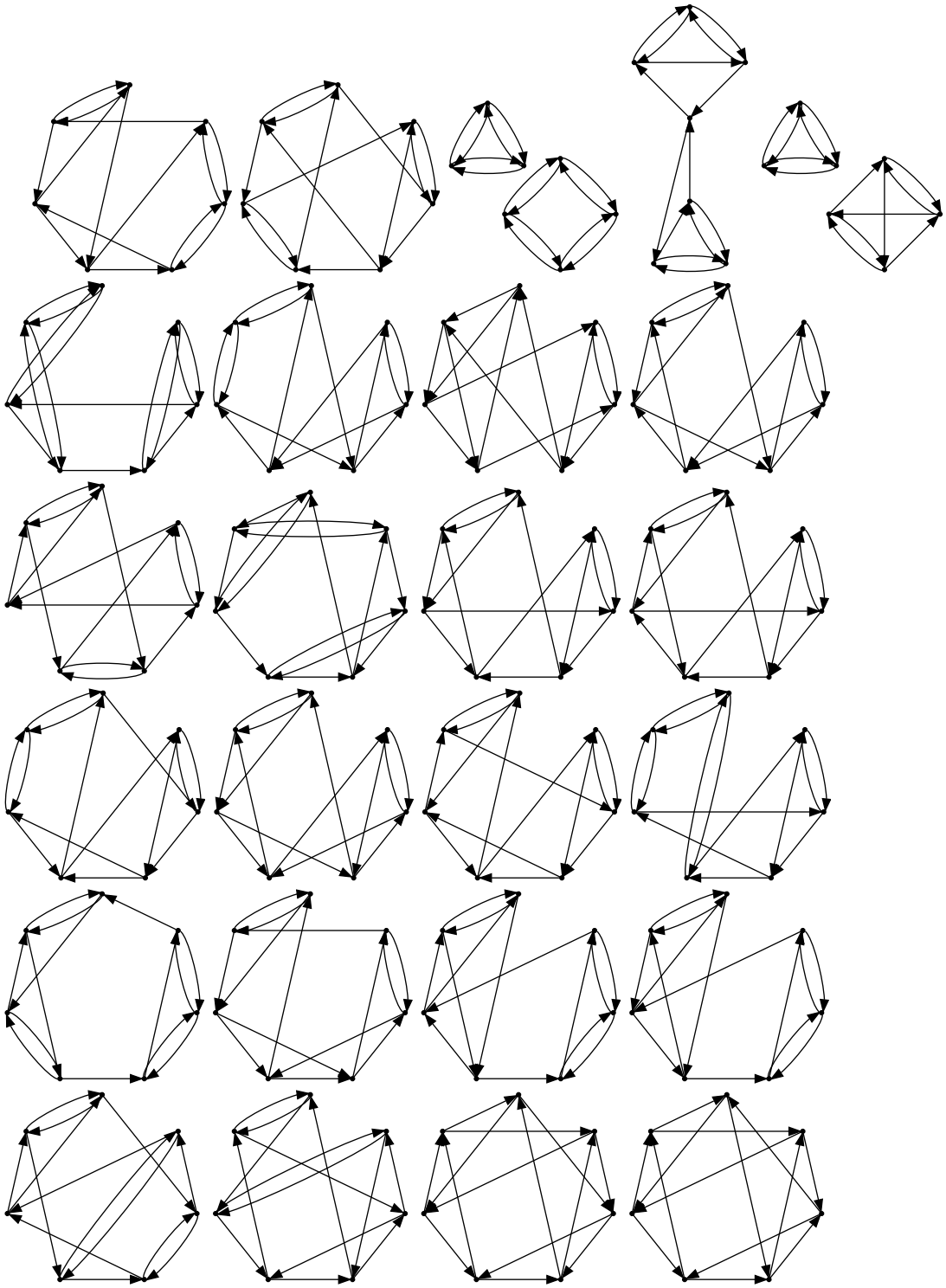
5 GRAPHS ON 5 NODES

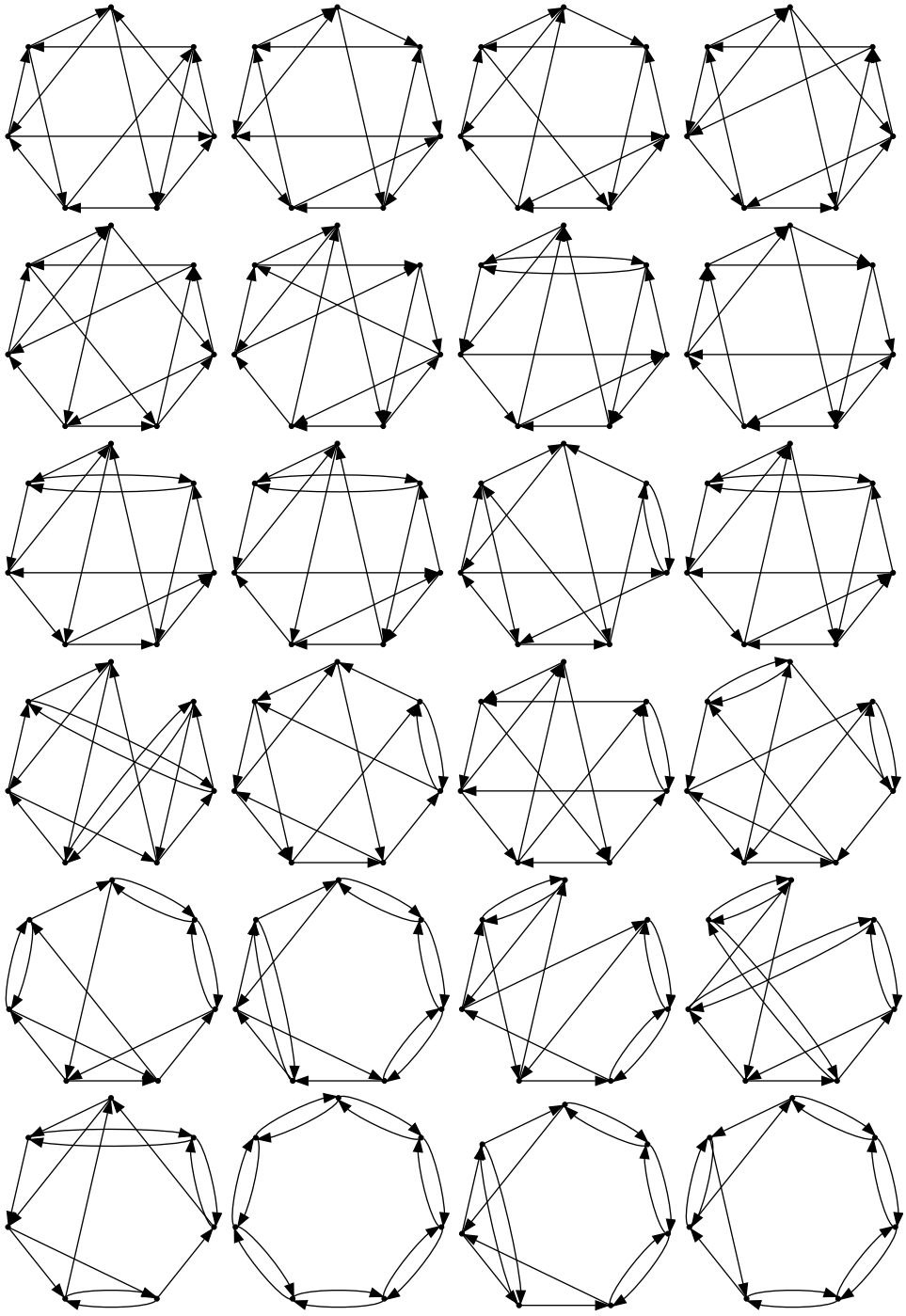


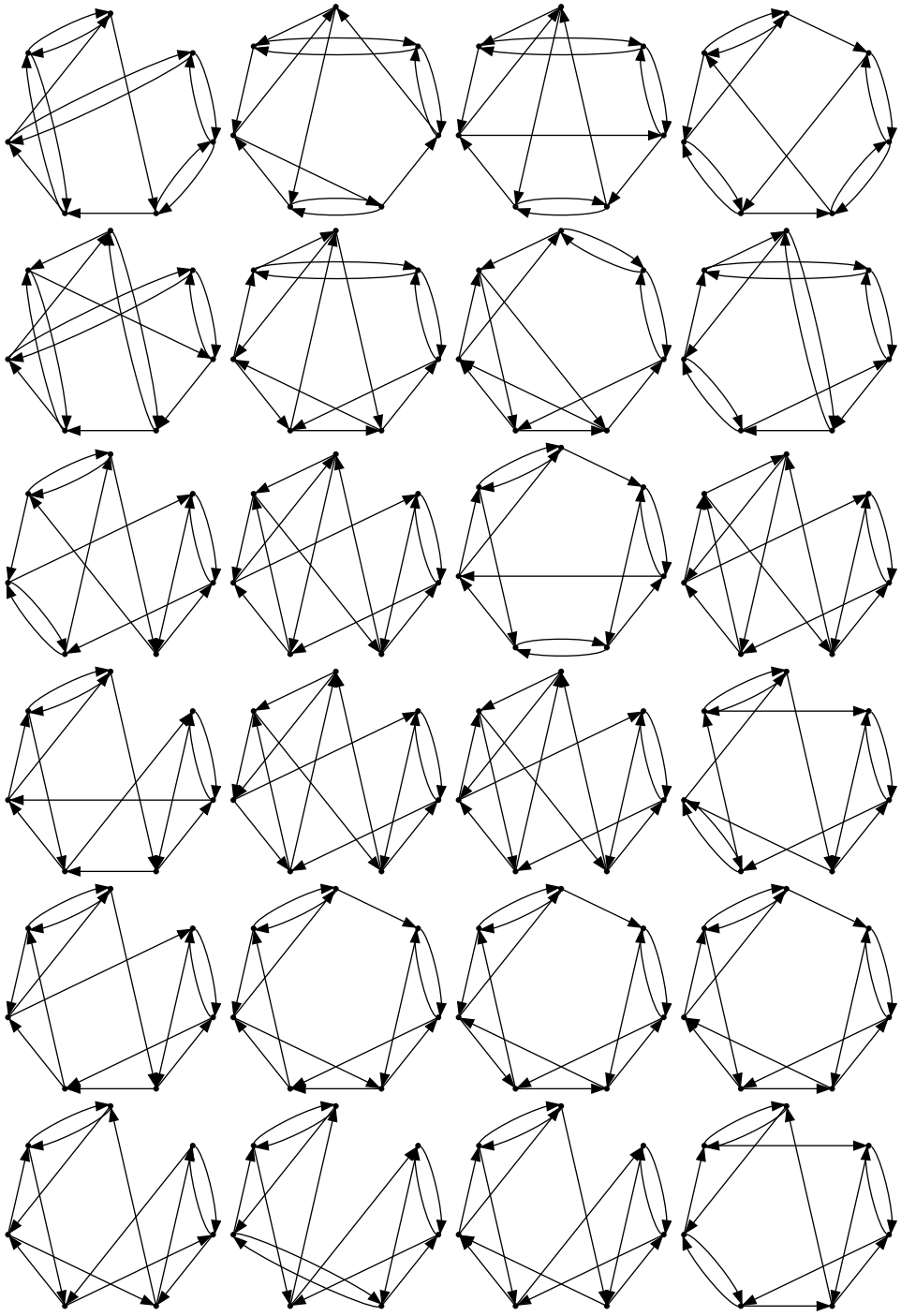
23 GRAPHS ON 6 NODES

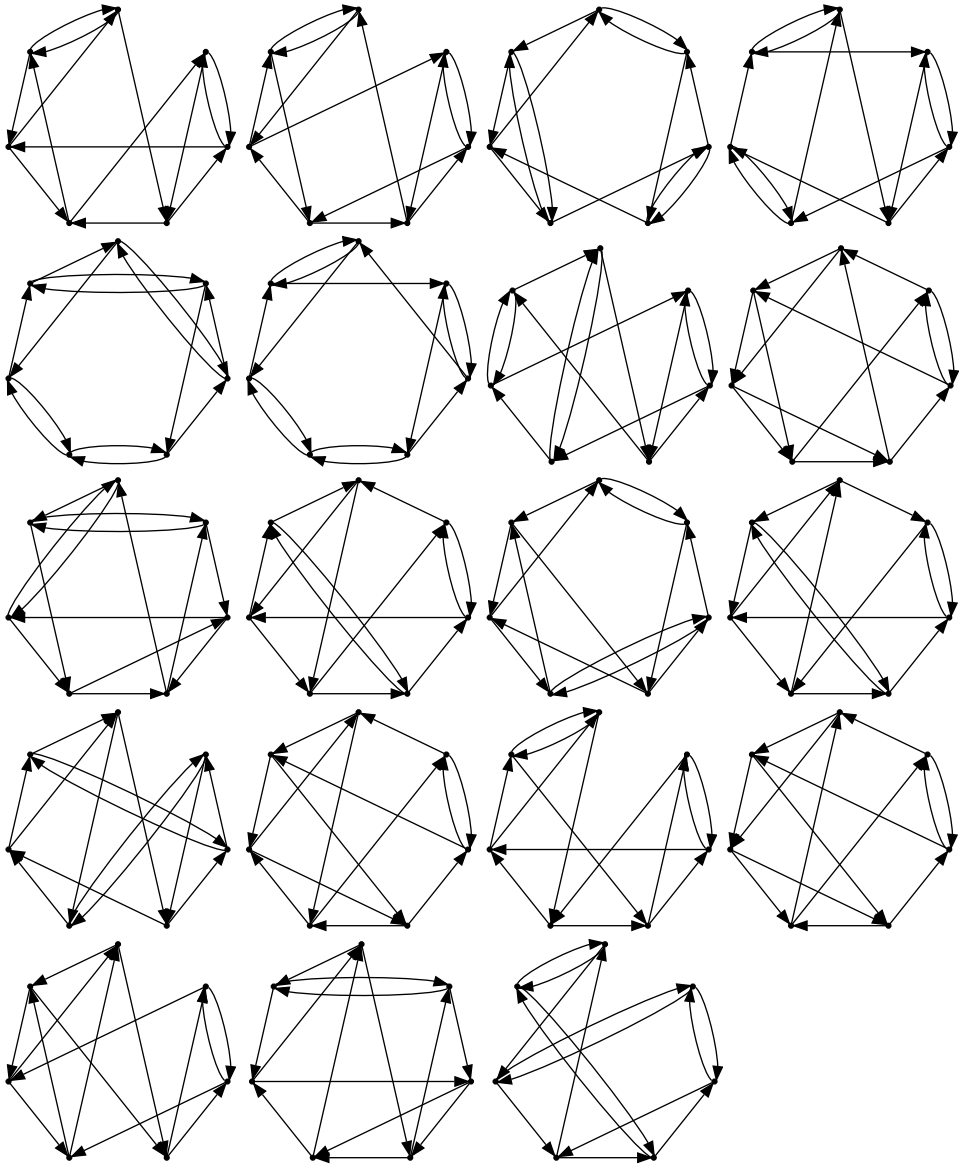


92 GRAPHS ON 7 NODES









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