

SUPPLEMENT

The system of adjacent structures with six elements – $\mathfrak{S}^{|\mathcal{V}|=6}$

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Known are the samplings of non-isomorphic graphs (i.e. structures) with n vertices. In these systems exists the *adjacent relations (called morphisms)* between the structure and its greatest substructures and also its smallest superstructures. Unfortunately, these relationships between structures has remained unnoticeable. This is due to the fact that the graphs that are obtained with edge-operations on the framework of the same binary orbit (i.e. position) are isomorphic, i.e. these constitute the same structure. This fact was for transitive graphs (i.e. for graphs with one binary position) proved already by A. Titov in 1975, but has been neglected. Principally it must be provable also for common case. Already then, some analysts as J. Mayer and other felt that the graph theory evolves too one-sidedly.

The theoretical foundations of formation of the adjacent structures are presented in the beginning of chapter “Structural Transformations” (4.1 and 4.2). As it is deal with a really existing and working phenomenon it is possible to “prove” its properties as the results of the corresponding algorithm. In a semi-manually mode were the systems for structures with 4-, 5- and 6 elements formed (with the corresponding numbers of structures and morphisms: (11, 14), (34, 72), and (156, 572)). The number of structures with 7 element number is 1044 and it was unfinished.

1. The systems of adjacent structures $\mathfrak{S}^{|\mathcal{V}|}$ are necessary:

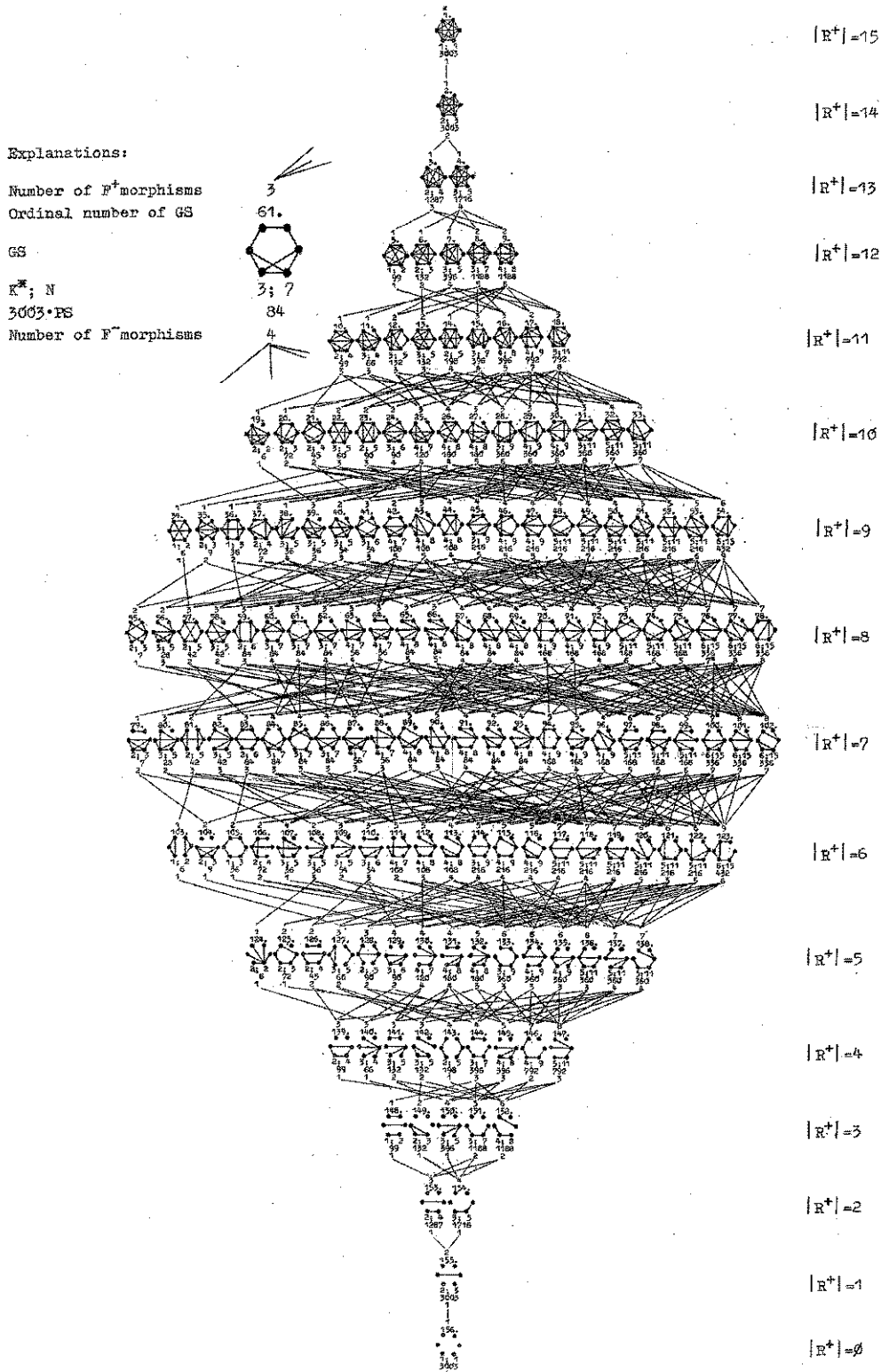
- a) For explanation of the meaning of structure and its adjacent structures;
- b) For an another viewpoint to the Ulam Conjecture;
- c) For arousing (receiving) of actual systemic parameters of structures, such as probabilities of morphisms and existence, measures of symmetry etc.:
- d) For checking the results of “semi-manually” obtained systems for structures with 4-, 5- and 6-elements;
- e) For forming the systems of structures or its fragments with more elements;
- f) For forming the assemblages of successions between structures with greater number of elements etc.

An essential core of this algorithm is the computer program of recognition the structure, that already be realized. It must be used so, that each output of this program give initial data for the next step. The complete realization of computer program of the forming the systems of adjacent structures is needed.

2. The common principles of formation of the systems:

- a) The initial structures GS^{init} are presented in the form of list of adjacencies L^{init} .
- b) Begins with a given structure GS^{init} , which is located on the structure level RGS^{init} (ie, with a structure with predetermined number q of connections (edges)).
- c) In the initial level RGS^{init} begins of the first structure GS_m , $m=1,2,\dots,M$.
- d) For each structure GS_m form its semiotic model SM_m .
- e) In each model SM_m fix the binary positions ΩR_n and element's positions ΩV_k .
- f) For each binary position ΩR_n form the corresponding adjacent structure GS_n^{adj} and fix its morphism probability PF_n^{adj} .
- g) Every new adjacent structure GS_n^{adj} fix to a structure GS_m of the adjacent level RGS^{adj} .
- h) If all the structures GS_m of initial level RGS^{init} have been processed, then fix their existence probabilities PS_m and corresponding adjacent level RGS^{adj} to a new initial level RGS^{init} and begin from p c.
- i) The latest level RGS^{adj} is predetermined or consists of one complete or empty structure.

3. The lattice of the system of adjacent structures with six elements:



Explanations:

- $|R^+|$ denote the *structural level*, i.e. the number of connections (i.e. “edges”) in the structures.
- Each graph presents there its *isomorphism class* or *structure GS*.
- Each structure in this lattice is an *adjacent structure* of some other structures, where the edges represent the morphisms F_n .
- The *complements* of represented structures placed symmetrically in the upper and lower half of lattice.

4. The presentation of structures in the system $\mathcal{G}^{|V|=6}$:

Entries are presented in pairs, for structure GS and its complement $\neg GS$. Graph-structures arranged by common order. To complement are in brackets an identifier $(|V|, |E|, r)$, where $|V|$ – number of vertices; $|E|$ – number of edges; m – ordering num-ber in structural level.

Graph-structures $GS.14$ (6.11.5) and $GS.143$ (6.4.5) (by Graph Atlas G199 and G70).

Entry of common characteristics and measures of GS and its complement $\neg GS$:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	5	$2^1 4^1$	0.645	$1^1 2^1 4^3$	2.174	0.444	8	196

Where, K – number of vertex positions (orbits); N – number of binary positions (orbits); SVV – vector of vertex positions, SV – vertex symmetry, SRV – vector of binary positions, HR – info capacity by binary positions; SR – symmetry by binary positions; aut – number of automorphisms and $3003PS$ – existence probability, enlarged 3003 times.

Figure of graph-structure $GS.14$ and its semiotic model SM:

A: -2.5.7; B: +2.3.3; C: +2.4.6; D: +2.5.8; E: +3.6.11.

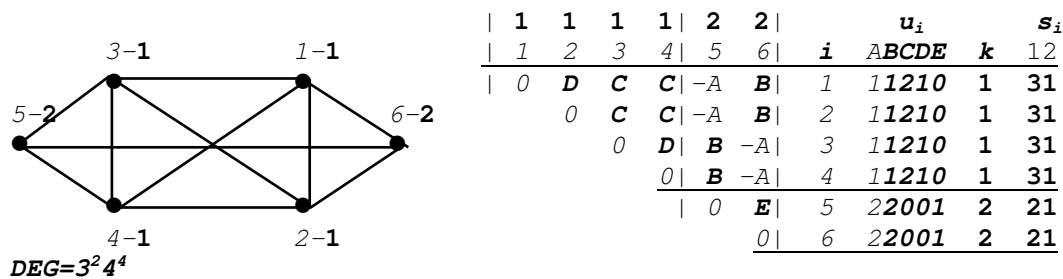
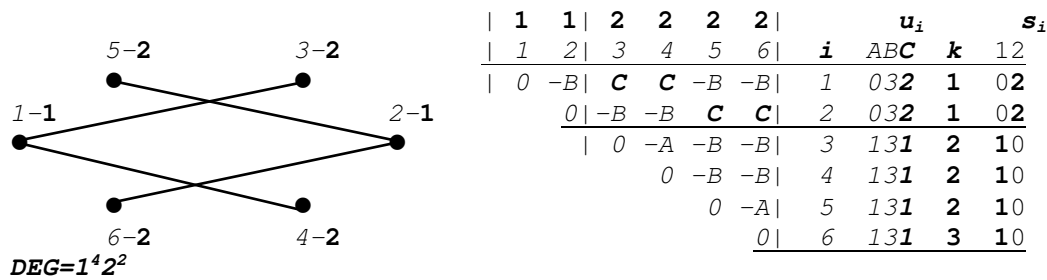


Figure of graph-structure $GS.143$ (complement of $GS.14$) and its semiotic model SM:

A: -2.3.2; B: -u.2.0; C: +1.2.1.



For each position of a graph-structure GS corresponds a position of its complement $\neg GS$. Correspondence of vertex positions (orbits):

$$\begin{matrix} GS.27 & 1 & 2 \\ GS.132 & 2 & 1 \end{matrix}$$

Entry of distinguishing invariants and measures:

<i>GS</i>	$ E $	N^+	N^-	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.14</i>	11	4	1	5	4	4	2	$1^1 2^1 4^2$	0.473	0.909	0	2.573	h
<i>GS.143</i>	4	1	4	3	2	0	2	4^1	1.000	0	1.000	2.500	bfp

Where, N^+ – number of binary(+)orbits; N^- – number of binary(-)orbits; P – number of binary signs; CL – greatest clique; G – girth (minimal cycle); DM – diameter; SEV – vector of edge positions; SE – edge symmetry; TRA – triangularity; BRA – branching; HE – topological entropy; b – bipartite; e – Eulerian; f – forest; h – Hamiltonian; p – planar; u – uniquely colorable.

Entry of identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj_n	1	2	3	4
GS. 14	Supp_n	9			
	$k.k'(p)$	1.2 (-A)	-	-	-
	PF_n	4/4			
	Sub_n	22	23	28	33
	$k.k'(p)$	1.1 (D)	2.2 (E)	1.1 (C)	1.2 (B)
	PF_n	2/11	1/11	4/11	4/11
GS. 143	Supp_n	127	128	133	138
	$k.k'(p)$	2.2 (-A)	1.1 (-B)	2.2 (-B)	1.2 (-B)
	PF_n	2/11	1/11	4/11	4/11
	Sub_n	152			
	$k.k'(p)$	1.2 (C)	-	-	-
	PF_n	4/4			

Where, $Supp_n$ and Sub_n – range number of adjacent superstructure and adjacent substructure correspondingly; k,k' – index of partial model $SM_{k,k'}$, that contain binary position, where (p) concretize this in therein, if it is need. There exists three partial models – 1.1, 1.2 and 2.2. PF_n – probability of morphism.

5. Fixing the adjacent structures.

5.1. Fixing of the adjacent substructures GS^{sub}_n :

For obtaining the adjacent substructure $GS^{sub}_{n=l}$ remove, for example, from binary position C in partial model 1.1 of structure $GS.14$ an arbitrary connection, for example 1-3, i.e. remove from the list of adjacencies L^{init} the connection 1-3. Obtained the list of adjacencies L^{adj}_n of adjacent substructure $GS^{sub}_{n=l}$:

- 6
1 -> 2, 4, 6;
2 -> 1, 3, 4, 6;
3 -> 2, 4, 5;
4 -> 1, 2, 3, 5;
5 -> 3, 4, 6;
6 -> 1, 2, 5;

5.2. For obtaining the structure model SM^{adj}_n processes it list L^{adj}_n accordingly to precripts and fixing as a new adjacent substructure GS^{sub}_n of this structure.

5.3. For preventing of recurrences in the forming of level the adjacent structures RGS^{adj} check in case of each obtained structure model SM^{adj}_n the coincidence of following attributes with existing:

- Coincidence of sequences of binary signs $\{\pm d.n.q.ij\}_A$ and $\{\pm d.n.q.ij\}_B$;
- Coincidence of frequency vectors $\{u_i\}_A$ and $\{u_i\}_B$;
- Coincidence of position vectors $\{s_i\}_A$ and $\{s_i\}_B$.

Only in case of lacking the coincidences **a**, **b**, and **c** fix the obtained model SM^{adj} as a new structure of structure level RGS^{adj} .

6. The specific presentation of the system of adjacent structures with 6 elements:

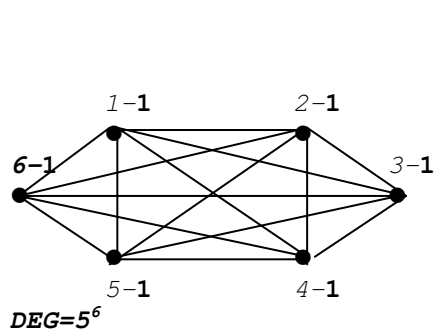
All the 156 structures (i.e. non-isomorphic graphs), the 572 relationships (morphisms) between their and other characteristics.

Graph-structures *GS.1* (6.15.1) and *GS.156* (6.0.1) (by Graph Atlas G208 and G53).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Complete	1	1	6 ¹	1.000	15 ¹	0	1.000	720	3003

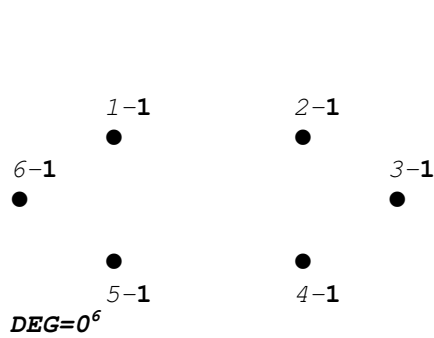
GS.1, its binary signs and semiotic model SM:



B: +2.6.15.

1	1	1	1	1	1			<i>k</i>
1	2	3	4	5	6	<i>i</i>	B	1
0	B	B	B	B	B	1	5	1
	0	B	B	B	B	2	5	1
		0	B	B	B	3	5	1
			0	B	B	4	5	1
				0	B	5	5	1
					0	6	5	1

GS.156 (complement of *GS.1*), its binary signs and semiotic model SM:



A: -u.2.0.

1	1	1	1	1	1			<i>k</i>
1	2	3	4	5	6	<i>i</i>	A	1
0	-A	-A	-A	-A	-A	1	5	1
	0	-A	-A	-A	-A	2	5	1
		0	-A	-A	-A	3	5	1
			0	-A	-A	4	5	1
				0	-A	5	5	1
					0	6	5	1

Correspondence of vertex positions (orbits):

<i>GS.1</i>	1
<i>GS.156</i>	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.1</i>	15	1	0	1	6	3	1	15 ¹	1.000	1.000	0	2.585	bfpu
<i>GS.156</i>	0	0	1	1	1	0	0	0 ¹	1.000	0	0	0	hu

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1
<i>GS.1</i>	<i>Supp_n</i> <i>k.k'</i> <i>PF_n</i>	-
	<i>Sub_n</i> <i>k.k'(p)</i> <i>PF_n</i>	2 1.1 (B) 15/15
	<i>Supp_n</i> <i>k.k'(p)</i> <i>PF_n</i>	155 1.1 (-A) 15/15
<i>GS.156</i>	<i>Sub_n</i> <i>k.k'</i> <i>PF_n</i>	-

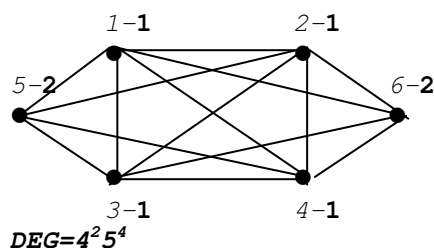
Graph-structures *GS.2 (6.14.1)* and *GS.155 (6.1.1)* (by Graph Atlas G207 and G54).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	3	2 ¹ 4 ¹	0.645	1 ¹ 6 ¹ 8 ¹	1.276	0.674	48	3003

GS.2, its binary signs and semiotic model SM:

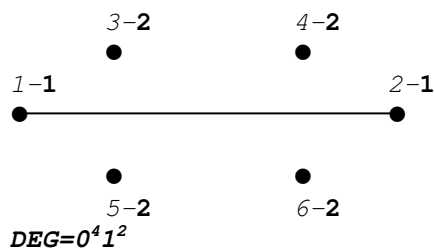
$$A: -2.6.14; B: +2.5.10; C: +2.6.14.$$



1	1	1	1	2	2			<i>k</i>	
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>		12
0	C	C	C	B	B	1	023	1	32
	0	C	C	B	B	2	023	1	32
		0	C	B	B	3	023	1	32
			0	B	B	4	023	1	32
				0	-A	5	140	2	40
					0	6	140	2	40

GS.155 (complement of *GS.2*), its binary signs and semiotic model SM:

$$A: -u.2.0; B: +1.2.1.$$



1	1	2	2	2	2			<i>k</i>	
1	2	3	4	5	6	<i>i</i>	<i>AB</i>		12
0	B	-A	-A	-A	-A	1	41	1	10
	0	-A	-A	-A	-A	2	41	1	10
		0	-A	-A	-A	3	50	2	00
			0	-A	-A	4	50	2	00
				0	-A	5	50	2	00
					0	6	50	2	00

Correspondence of vertex positions (orbits):

$$\begin{matrix} GS.2 & 1 & 2 \\ GS.155 & 2 & 1 \end{matrix}$$

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.2</i>	14	2	1	3	5	3	2	6 ¹ 8 ¹	0.741	1.000	0	2.577	hu
<i>GS.155</i>	1	1	2	2	2	0	1	1 ¹	1.000	0	1.000	1.000	bfp

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2
<i>GS.2</i>	<i>Supp_n</i>	1	-
	<i>k.k'(p)</i>	2.2 (-A)	-
	<i>PF_n</i>	1/1	-
	<i>Sub_n</i>	3	4
<i>GS.155</i>	<i>k.k'(p)</i>	1.1 (C)	1.2 (B)
	<i>PF_n</i>	6/14	8/14
	<i>Supp_n</i>	153	154
	<i>k.k'(p)</i>	2.2 (-A)	1.2 (-A)
<i>GS.155</i>	<i>PF_n</i>	6/14	8/14
	<i>Sub_n</i>	156	-
	<i>k.k'(p)</i>	1.1 (B)	-
	<i>PF_n</i>	1/1	-

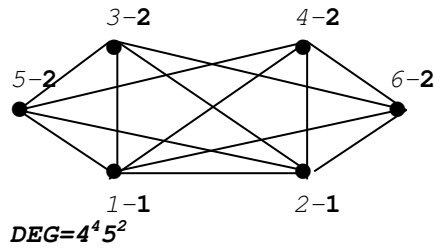
Graph-structures *GS.3* (6.13.1) and *GS.153* (6.2.1) (by Graph Atlas G206 and G55).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	4	2 ¹ 4 ¹	0.645	1 ¹ 2 ¹ 4 ¹ 8 ¹	1.640	0.580	16	1287

GS.3, its binary signs and semiotic model SM:

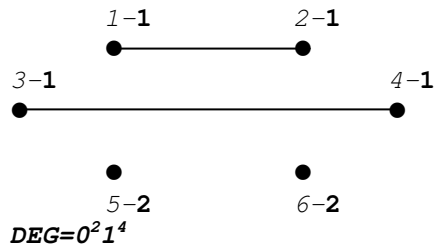
A: -2.6.13; B: +2.4.6; C: +2.5.9; D: +2.6.13.



1	1	2	2	2	2	<i>i</i>	<i>ABCD</i>	<i>k</i>
1	2	3	4	5	6	1	0041	12
0	D	C	C	C	C	1	0041	14
0	C	C	C	C	C	2	0041	14
0	-A	B	B	B	B	3	1220	22
0	B	B	B	B	B	4	1220	22
0	-A	B	B	B	B	5	1220	22
0	B	B	B	B	B	6	1220	22

GS.153 (complement of *GS.3*), its binary signs and semiotic model SM:

A: -u.2.0; B: +1.2.1.



1	1	1	1	2	2	<i>i</i>	<i>AB</i>	<i>k</i>
1	2	3	4	5	6	1	41	10
0	B	-A	-A	-A	-A	1	41	10
0	-A	-A	-A	-A	-A	2	41	10
0	B	-A	-A	-A	-A	3	41	10
0	-A	-A	-A	-A	-A	4	41	10
0	-A	-A	-A	-A	-A	5	50	00
0	-A	-A	-A	-A	-A	6	50	00

Correspondence of vertex positions (orbits):

<i>GS.3</i>	1	2
<i>GS.153</i>	2	1

Distinguishing invariants and measures:

<i>GS</i>	$ E $	N^+	N^-	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.3</i>	13	3	1	4	4	3	2	1 ¹ 4 ¹ 8 ¹	0.665	1.000	0	2.576	hu
<i>GS.153</i>	2	1	3	2	2	0	1	2 ¹	1.000	0	1.000	2.000	bf _p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	Adj_n	1	2	3
<i>GS.3</i>	$Supp_n$	2		
	$k.k'(p)$	2.2 (-A)	-	-
	PF_n	2/2		
<i>GS.3</i>	Sub_n	5	8	9
	$k.k'(p)$	1.1 (D)	2.2 (B)	1.2 (C)
	PF_n	1/13	4/13	8/13
<i>GS.153</i>	$Supp_n$	148	151	152
	$k.k'(p)$	2.2 (-A)	1.1 (-A)	1.2 (-A)
	PF_n	1/13	4/13	8/13
<i>GS.153</i>	Sub_n	155		
	$k.k'(p)$	1.1 (B)	-	-
	PF_n	2/2		

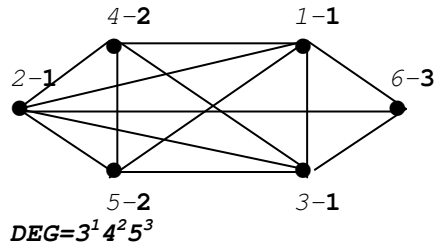
Graph-structures *GS.4* (6.13.2) and *GS.154* (6.2.2) (by Graph Atlas G205 and G56).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	$1^1 2^1 3^1$	0.645	$1^1 2^1 3^2 6^1$	2.106	0.461	12	1716

GS.4, its binary signs and semiotic model SM:

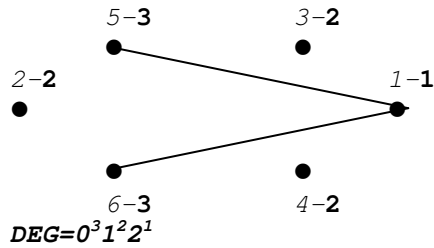
A: -2.5.9; B: +2.4.6; C: +2.5.10; D: +2.6.13.



1	1	1	2	2	3			<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>	
0	D	D	C	C	B	1	0122	1 221
0	D	C	C	B		2	0122	1 221
0	C	C	B			3	0122	1 221
0	C	-A				4	1040	2 310
0	-A					5	1040	2 310
0						6	2300	3 300

GS.154 (complement of *GS.4*), its binary signs and semiotic model SM:

A: -2.3.2; B: -u.2.0; C: +1.2.1.



1	2	2	2	3	3			<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>	
0	-B	-B	-B	C	C	1	032	1 002
0	-B	-B	-B	-B		2	050	2 000
0	-B	-B	-B			3	050	2 000
0	-B	-B				4	050	2 000
0	-A					5	131	3 100
0						6	131	3 100

Correspondence of vertex positions (orbits):

<i>GS.4</i>	1	2	3
<i>GS.154</i>	2	3	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.4</i>	13	4	1	4	5	3	2	$1^1 3^2 6^1$	0.520	1.000	0	2.563	h
<i>GS.154</i>	2	1	4	3	2	0	2	2^1	1.000	0	1.000	1.500	bf_p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
<i>GS.4</i>	<i>Supp_n</i>	2			
	<i>k.k'(p)</i>	2.3 (-A)	-	-	-
	<i>PF_n</i>	2/2			
	<i>Sub_n</i>	6	7	8	9
<i>GS.154</i>	<i>k.k'(p)</i>	2.2 (C)	1.3 (B)	1.2 (C)	1.1 (D)
	<i>PF_n</i>	1/13	3/13	6/13	3/13
	<i>Supp_n</i>	149	150	151	152
	<i>k.k'(p)</i>	3.3 (-A)	1.2 (-B)	2.3 (-B)	2.2 (-B)
<i>GS.154</i>	<i>PF_n</i>	1/13	3/13	6/13	3/13
	<i>Sub_n</i>	155			
<i>GS.154</i>	<i>k.k'(p)</i>	1.3 (C)	-	-	-
	<i>PF_n</i>	2/2			

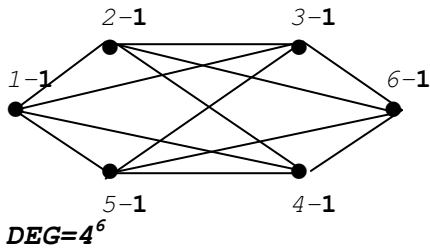
Graph-structures *GS.5* (6.12.1) and *GS.148* (6.3.1) (by Graph Atlas G204 and G61).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Bisymmetry	1	2	6 ¹	1.000	3 ¹ 12 ¹	0.722	0.815	48	99

GS.5, its binary signs and semiotic model SM:

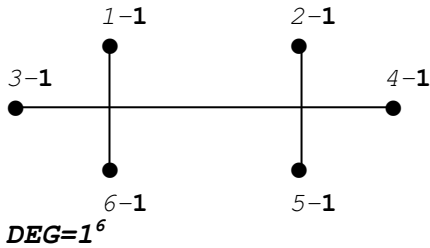
$$A: -2.6.12; B: +2.4.5.$$



						<i>k</i>			
1	2	3	4	5	6	<i>i</i>	<i>AB</i>		12
1	2	3	4	5	6	1	14	1	04
0	B	B	B	B	-A	2	14	1	04
	0	B	B	-A	B	3	14	1	04
		0	-A	B	B	4	14	1	04
			0	B	B	5	14	1	04
				0	B	6	14	1	04
					0				

GS.148 (complement of *GS.5*), its binary signs and semiotic model SM:

$$A: -u.2.0; B: +1.2.1.$$



						<i>k</i>			
1	2	3	4	5	6	<i>i</i>	<i>AB</i>		12
1	2	3	4	5	6	1	41	1	01
0	-A	-A	-A	-A	B	2	41	1	01
	0	-A	-A	B	-A	3	41	1	01
		0	B	-A	-A	4	41	1	01
			0	-A	-A	5	41	1	01
				0	-A	6	41	1	01
					0				

Correspondence of vertex positions (orbits):

<i>GS.5</i>	1
<i>GS.148</i>	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.5</i>	12	1	1	2	3	3	2	12 ¹	1.000	1.000	0	2.585	ehpu
<i>GS.148</i>	3	1	1	2	2	0	1	3 ¹	1.000	0	1.000	2.585	bfp

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	<i>1</i>
<i>GS.5</i>	<i>Supp_n</i>	3
	<i>k.k'(p)</i>	1.1 (-A)
	<i>PF_n</i>	3/3
	<i>Sub_n</i>	15
<i>GS.148</i>	<i>Supp_n</i>	144
	<i>k.k'(p)</i>	1.1 (-A)
	<i>PF_n</i>	12/12
	<i>Sub_n</i>	153
<i>GS.148</i>	<i>k.k'(p)</i>	1.1 (B)
	<i>PF_n</i>	3/3

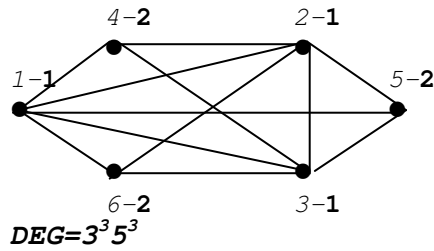
Graph-structures *GS.6* (6.12.2) and *GS.149* (6.3.2) (by Graph Atlas G201 and G57).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	3	3 ²	1.000	3 ¹ 9 ¹	1.371	0.649	36	132

GS.6, its binary signs and semiotic model SM:

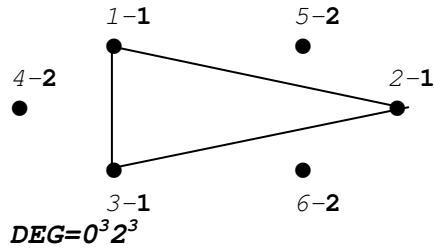
A: -2.5.9; B: +2.4.6. C: +2.6.12.



1	1	1	2	2	2			<i>k</i>	
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>	1	12
0	C	C	B	B	B	1	032	1	23
	0	C	B	B	B	2	032	1	23
		0	B	B	B	3	032	1	23
			0	-A	-A	4	230	2	30
				0	-A	5	230	2	30
					0	6	230	2	30

GS.149 (complement of *GS.6*), its binary signs and semiotic model SM:

A: -u.2.0; B: +2.3.3.



1	1	1	2	2	2			<i>k</i>	
1	2	3	4	5	6	<i>i</i>	<i>AB</i>	1	12
0	B	B	-A	-A	-A	1	32	1	20
	0	B	-A	-A	-A	2	32	1	20
		0	-A	-A	-A	3	32	1	20
			0	-A	-A	4	50	2	00
				0	-A	5	50	2	00
					0	6	50	2	00

Correspondence of vertex positions (orbits):

<i>GS.6</i>	1	2
<i>GS.149</i>	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.6</i>	12	2	1	3	4	3	2	3 ¹ 9 ¹	0.774	1.000	0	2.539	hu
<i>GS.149</i>	3	1	2	2	3	3	1	3 ¹	1.000	1.000	0	1.585	p

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2
<i>GS.6</i>	<i>Supp_n</i>	4	-
	<i>k.k'(p)</i>	2.2 (-A)	-
	<i>PF_n</i>	3/3	-
<i>GS.149</i>	<i>Sub_n</i>	13	16
	<i>k.k'(p)</i>	1.1 (C)	1.2 (B)
	<i>PF_n</i>	3/12	9/12
<i>GS.149</i>	<i>Supp_n</i>	142	145
	<i>k.k'(p)</i>	2.2 (-A)	1.2 (-A)
	<i>PF_n</i>	3/12	9/12
<i>GS.149</i>	<i>Sub_n</i>	154	-
	<i>k.k'(p)</i>	1.1 (B)	-
	<i>PF_n</i>	3/3	-

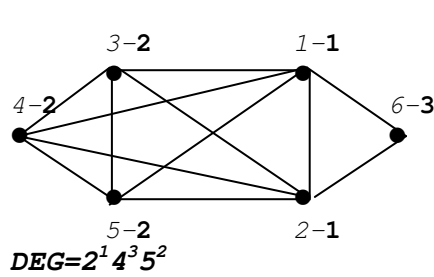
Graph-structures *GS.7* (6.12.3) and *GS.150* (6.3.3) (by Graph Atlas G200 and G58).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	1 ¹ 2 ¹ 3 ¹	0.478	1 ¹ 2 ¹ 3 ² 6 ¹	2.106	0.435	12	396

GS.7, its binary signs and semiotic model SM:

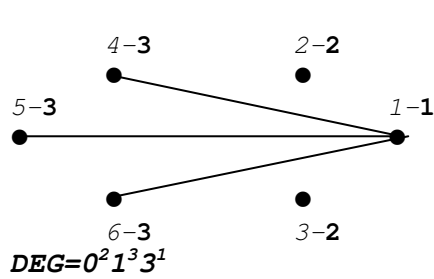
A: -2.4.5; B: +2.3.3; C: +2.5.10; D: +2.6.12.



1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>	<i>k</i>
1	2	3	4	5	6	1	0131	1
0	D	C	C	C	B	2	0131	1
0	C	C	C	B	3	1040	2	220
0	C	-A	4	1040	2	220		
0	-A	5	1040	2	220			
0	6	3200	3	200				

GS.150 (complement of *GS.7*), its binary signs and semiotic model SM:

A: -2.3.2; B: -u.2.0; C: +1.2.1.



1	2	3	4	5	6	<i>i</i>	<i>ABC</i>	<i>k</i>
1	2	3	4	5	6	1	023	1
0	-B	-B	C	C	C	2	050	2
0	-B	-B	-B	-B	3	050	2	000
0	-A	-A	4	221	3	100		
0	-A	5	221	3	100			
0	6	221	3	100				

Correspondence of vertex positions (orbits):

<i>GS.7</i>	1	2	3
<i>GS.150</i>	2	3	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.7</i>	12	4	1	4	5	3	2	1 ¹ 2 ¹ 3 ¹ 6 ¹	0.518	1.000	0	2.534	h
<i>GS.150</i>	3	1	4	3	2	0	2	3 ¹	1.000	0	1.000	1.793	bfp

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
<i>GS.7</i>	<i>Supp_n</i>	4			
	<i>k.k'(p)</i>	2.3 (-A)	-	-	-
	<i>PF_n</i>	3/3			
	<i>Sub_n</i>	11	12	16	18
<i>GS.150</i>	<i>k.k'(p)</i>	1.3 (B)	1.1 (D)	2.2 (C)	1.2 (C)
	<i>PF_n</i>	2/12	1/12	3/12	6/12
	<i>Supp_n</i>	140	141	145	147
	<i>k.k'(p)</i>	1.2 (-B)	2.2 (-B)	3.3 (-A)	2.3 (-B)
<i>GS.150</i>	<i>PF_n</i>	2/12	1/12	3/12	6/12
	<i>Sub_n</i>	154			
<i>GS.150</i>	<i>k.k'(p)</i>	1.3 (C)	-	-	-
	<i>PF_n</i>	3/3			

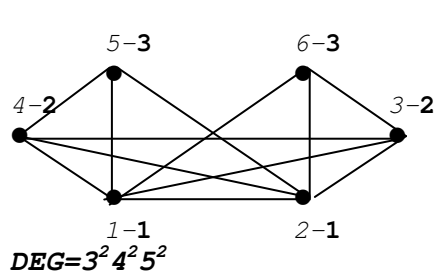
Graph-structures *GS.8* (6.12.4) and *GS.151* (6.3.4) (by Graph Atlas G202 and G59).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	7	2³	0.523	1³2²4²	2.574	0.341	4	1188

GS.8, its binary signs and semiotic model SM:

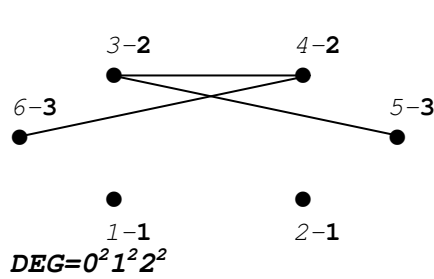
A: -2.5.9; B: -2.4.5; C: +2.4.6; D: +2.5.9; E: +2.6.12.



1	1	2	2	3	3			<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE	1234
0	E	D	D	C	C	1	00221	1 1122
0	D	D	C	C		2	00221	1 1122
0	C	-A	C			3	10220	2 2211
0	C	-A				4	10220	2 2211
0	-B					5	11300	3 3210
0						6	11300	3 3210

GS.151 (complement of *GS.8*), its binary signs and semiotic model SM:

A: -3.4.3; B: -2.3.2; C: -u.2.0; D: +1.2.1.



1	1	2	2	3	3			<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCD	123
0	-C	-C	-C	-C	-C	1	0050	1 000
0	-C	-C	-C	-C		2	0050	1 000
0	D	D	-B			3	0122	2 011
0	-B	D				4	0122	2 011
0	-A					5	1121	3 010
0						6	1121	3 010

Correspondence of vertex positions (orbits):

<i>GS.8</i>	1	2	3
<i>GS.151</i>	1	3	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.8</i>	12	5	2	5	4	3	2	1²2¹4²	0.418	1.000	0	2.555	hpu
<i>GS.151</i>	3	2	5	4	2	0	3	1¹2¹	0.421	0	1.000	1.918	bfp

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5
<i>GS.8</i>	<i>Supp_n</i>	3	4			
	<i>k.k'(p)</i>	3.3 (-B)	2.3 (-A)	-	-	-
	<i>PF_n</i>	1/3	2/3			
	<i>Sub_n</i>	10	15	16	17	18
<i>GS.151</i>	<i>Supp_n</i>	139	144	145	146	147
	<i>k.k'(p)</i>	3.3 (-A)	1.1 (-C)	2.3 (-B)	1.3 (-C)	1.2 (-C)
	<i>PF_n</i>	1/12	1/12	2/12	4/12	4/12
	<i>Sub_n</i>	153	154			
<i>GS.151</i>	<i>k.k'(p)</i>	2.2 (D)	2.3 (D)	-	-	-
	<i>PF_n</i>	1/3	2/3			

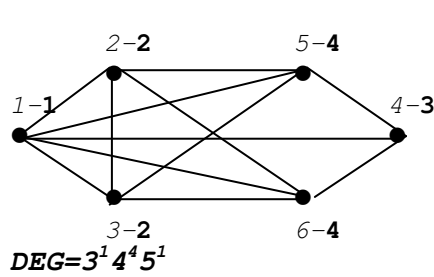
Graph-structures GS.9 (6.12.5) and GS.152 (6.3.5) (by Graph Atlas G203 and G60).

Common invariants and measures of the structure and its complement:

Symmetry	K	N	SVV	SV	SRV	HR	SR	aut	3003PS
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	1188

GS.9, its binary signs and semiotic model SM:

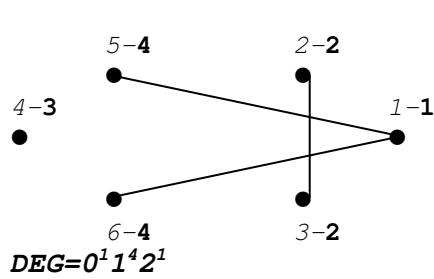
A: -2.6.12; B: -2.5.8; C: +2.3.3; D: +2.4.5; E: +2.4.6; F: +2.5.8; G:+2.5.9.



1	2	3	4	4	k			
1	2	3	4	5	6	i	ABCDEFG	1234
0	G	G	D	F	F	1	001022	1 0212
0	G	-B	E	E	2	0100202	2 1102	
0	-B	E	E	3	0100202	2 1102		
0	C	C	4	0221000	3	1002		
0	-A	5	1010210	4	1210			
0	6	1010210	4	1210				

GS.152 (complement of GS.9), its binary signs and semiotic model SM:

A: -2.3.2; B: -u.2.0; C: +1.2.1.



1	2	3	4	4	k			
1	2	3	4	5	6	i	ABC	1234
0	-B	-B	-B	C	C	1	032	1 0002
0	C	-B	-B	-B	2	041	2 0100	
0	-B	-B	-B	3	041	2 0100		
0	-B	-B	4	050	3	0000		
0	-A	5	131	4	1000			
0	6	131	4	1000				

Correspondence of vertex positions (orbits):

GS.9	1	2	3	4
GS.152	3	4	1	2

Distinguishing invariants and measures:

GS	E	N ⁺	N ⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.9	12	6	2	7	4	3	2	1 ² 2 ³ 4 ¹	0.326	1.000	0	2.570	h
GS.152	3	2	6	3	2	0	2	1 ¹ 2 ¹	0.421	0	1.000	2.252	bfp

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4	5	6
GS.9	Supp _n	3	4				
	k.k'(p)	2.3(-B)	4.4(-A)	-	-	-	-
	PF _n	2/3	1/3				
	Sub _n	12	13	14	15	17	18
GS.152	k.k'(p)	1.3(D)	2.2(G)	1.4(F)	1.2(G)	2.4(E)	3.4(C)
	PF _n	1/12	1/12	2/12	2/12	4/12	2/12
	Supp _n	141	142	143	144	146	147
	k.k'(p)	1.3(-B)	4.4(-A)	2.3(-B)	3.4(-B)	2.4(-B)	1.2(-B)
GS.152	PF _n	1/12	1/12	2/12	2/12	4/12	2/12
	Sub _n	153	154				
GS.152	k.k'(p)	1.4(C)	2.2(C)	-	-	-	-
	PF _n	2/3	1/3				

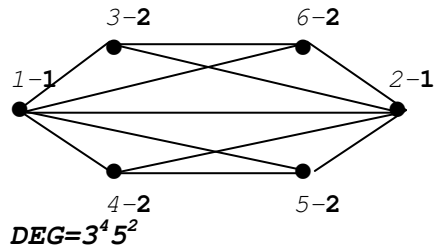
Graph-structures *GS.10* (6.11.1) and *GS.139* (6.4.1) (by Graph Atlas G195 and G63).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	4	2 ¹ 4 ¹	0.645	1 ³ 2 ⁴ 4 ¹	1.640	0.580	16	99

GS.10, its binary signs and semiotic model SM:

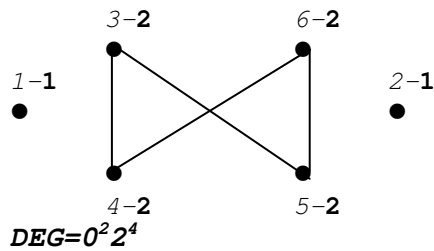
A: -2.4.5; B: +2.4.6; C: +2.6.11.



1	1	2	2	2	2				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>		12
0	C	B	B	B	B	1	041	1	14
0	B	B	B	B	B	2	041	1	14
0	-A	-A	B			3	230	2	21
		0	B	-A		4	230	2	21
			0	-A		5	230	2	21
				0		6	230	2	21

GS.139 (complement of *GS.10*), its binary signs and semiotic model SM:

A: -2.4.4; B: -u.2.0; C: +3.4.4.



1	1	2	2	2	2				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>		12
0	-B	-B	-B	-B	-B	1	050	1	00
0	-B	-B	-B	-B	-B	2	050	1	00
0	C	C	-A			3	122	2	02
		0	-A	C		4	122	2	02
			0	C		5	122	2	02
				0		6	122	2	02

Correspondence of vertex positions (orbits):

<i>GS.10</i>	1	2
<i>GS.139</i>	1	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^t</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.10</i>	11	3	1	3	4	3	2	1 ¹ 2 ¹ 8 ¹	0.683	1.000	0	2.540	hp
<i>GS.139</i>	4	1	3	3	2	4	2	4 ¹	1.000	0	0	2.000	bp

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3
<i>GS.10</i>	<i>Supp_n</i>	8		
	<i>k.k'(p)</i>	2.2 (-A)	-	-
	<i>PF_n</i>	4/4		
<i>GS.139</i>	<i>Sub_n</i>	21	24	31
	<i>k.k'(p)</i>	1.1 (C)	2.2 (B)	1.2 (B)
	<i>PF_n</i>	1/11	2/11	8/11
<i>GS.139</i>	<i>Supp_n</i>	126	129	136
	<i>k.k'(p)</i>	1.1 (-B)	2.2 (-A)	1.2 (-B)
	<i>PF_n</i>	1/11	2/11	8/11
<i>GS.139</i>	<i>Sub_n</i>	151		
	<i>k.k'(p)</i>	2.2 (C)	-	-
	<i>PF_n</i>	4/4		

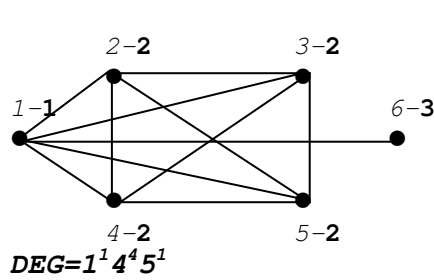
Graph-structures *GS.11* (6.11.2) and *GS.140* (6.4.2) (by Graph Atlas G191 and G64).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	4	1 ² 4 ¹	0.542	1 ¹ 4 ² 6 ¹	1.802	0.537	24	66

GS.11, its binary signs and semiotic model SM:

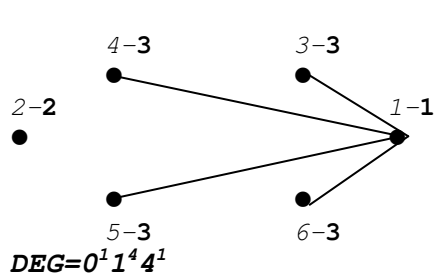
$$A: -2.3.2; B: +1.2.1; C: +2.5.10.$$



1	2	2	2	2	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>	123
0	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>B</i>	1	014	1 041
0	<i>C</i>	<i>C</i>	<i>C</i>	-A	2	104	2	130
0	<i>C</i>	<i>C</i>	-A	3	104	2	130	
0	<i>C</i>	-A	4	104	2	130	130	
0	-A	5	104	2	130	130	130	
0	6	410	3	100	100	100	100	

GS.140 (complement of *GS.11*), its binary signs and semiotic model SM:

$$A: -2.3.2; B: -u.2.0; C: +1.2.1.$$



1	2	3	3	3	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>	123
0	-B	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	1	014	1 004
0	-B	-B	-B	-B	2	050	2	000
0	-A	-A	-A	3	311	3	100	
0	-A	-A	4	311	3	100	100	
0	-A	5	311	3	100	100	100	
0	6	311	3	100	100	100	100	

Correspondence of vertex positions (orbits):

<i>GS.11</i>	1	2	3
<i>GS.140</i>	2	3	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.11</i>	11	3	1	3	5	3	2	1 ¹ 4 ¹ 6 ¹	0.618	0.909	0.091	2.477	-
<i>GS.140</i>	4	1	3	3	2	0	2	4 ¹	1.000	0	1.000	2.000	bfp

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3
<i>GS.11</i>	<i>Supp_n</i>	7		
	<i>k.k'(p)</i>	2.3 (-A)	-	-
	<i>PF_n</i>	4/4		
	<i>Sub_n</i>	19	25	27
<i>GS.140</i>	<i>k.k'(p)</i>	1.3 (B)	1.2 (C)	2.2 (C)
	<i>PF_n</i>	1/11	4/11	6/11
	<i>Supp_n</i>	124	130	132
	<i>k.k'(p)</i>	1.2 (-B)	2.3 (-B)	3.3 (-A)
<i>GS.140</i>	<i>PF_n</i>	1/11	4/11	6/11
	<i>Sub_n</i>	150		
<i>GS.140</i>	<i>k.k'(p)</i>	1.3 (C)	-	-
	<i>PF_n</i>	4/4		

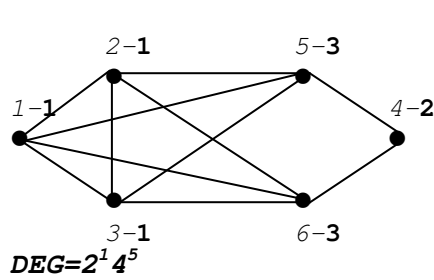
Graph-structures *GS.12* (6.11.3) and *GS.141* (6.4.3) (by Graph Atlas G194 and G68).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	1 ² 1 ³ 1	0.478	1 ² 1 ³ 2 ⁶ 1	2.106	0.461	12	132

GS.12, its binary signs and semiotic model SM:

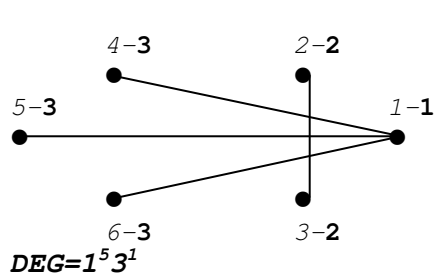
A: -2.6.11; B: -2.4.4; C: +2.4.6; D: +2.5.9; E: +3.6.11.



1	1	1	2	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE		
0	D	D	-B	C	C	1	01220	1	202
0	D	-B	C	C		2	01220	1	202
0	-B	C	C			3	01220	1	202
0	E	E				4	03002	2	002
0	-A					5	10301	3	310
0						6	10301	3	310

GS.141 (complement of *GS.12*), its binary signs and semiotic model SM:

A: -2.3.2; B: -u.2.0; C: +1.2.1.



1	2	2	3	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABC		
0	-B	-B	C	C	C	1	023	1	003
0	C	-B	-B	-B		2	041	2	010
0	-B	-B	-B			3	041	2	010
0	-A	-A				4	221	3	100
0	-A					5	221	3	100
0						6	221	3	100

Correspondence of vertex positions (orbits):

<i>GS.12</i>	1	2	3
<i>GS.141</i>	3	1	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.12</i>	11	3	2	5	4	4	2	2 ¹ 3 ¹ 6 ¹	0.585	0.818	0	2.550	eh
<i>GS.141</i>	4	2	3	3	2	0	2	1 ³ 1	0.594	0	1.000	2.406	bfp

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3
<i>GS.12</i>	<i>Supp_n</i>	7	9	-
	<i>k.k'(p)</i>	3.3 (-A)	1.2 (-B)	-
	<i>PF_n</i>	1/4	3/4	-
	<i>Sub_n</i>	25	26	33
	<i>k.k'(p)</i>	2.3 (E)	1.1 (D)	1.3 (C)
	<i>PF_n</i>	2/11	3/11	6/11
<i>GS.141</i>	<i>Supp_n</i>	130	131	138
	<i>k.k'(p)</i>	1.2 (-B)	3.3 (-A)	2.3 (-B)
	<i>PF_n</i>	2/11	3/11	6/11
	<i>Sub_n</i>	150	152	-
	<i>k.k'(p)</i>	2.2 (C)	1.3 (C)	-
	<i>PF_n</i>	1/4	3/4	-

Graph-structures *GS.13* (6.11.4) and *GS.142* (6.4.4) (by Graph Atlas G197 and G67).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	1 ¹ 2 ¹ 3 ¹	0.478	1 ¹ 2 ¹ 3 ² 6 ¹	2.106	0.461	12	132

GS.13, its binary signs and semiotic model SM:

A: -2.6.11; B: -2.5.8; C: +2.3.3; D: +2.4.5; E: +2.5.7.

1	2	2	2	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCDE</i>		123
0	<i>D</i>	<i>D</i>	<i>D</i>	<i>E</i>	<i>E</i>	1	00032	1	032
0	-B	-B	<i>C</i>	<i>C</i>		2	02210	2	102
	0	-B	<i>C</i>	<i>C</i>		3	02210	2	102
			<i>C</i>	<i>C</i>		4	02210	2	102
	0	-A				5	10301	3	130
						6	10301	3	130

GS.142 (complement of *GS.13*), its binary signs and semiotic model SM:

A: -u.2.0; B: +1.2.1; C: +2.3.3.

1	1	1	2	2	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>		123
0	<i>C</i>	<i>C</i>	-A	-A	-A	1	302	1	200
	0	<i>C</i>	-A	-A	-A	2	302	1	200
		0	-A	-A	-A	3	302	1	200
			0	<i>B</i>	-A	4	410	2	010
				0	-A	5	410	2	010
					0	6	221	3	100

Correspondence of vertex positions (orbits):

<i>GS.13</i>	1	2	3
<i>GS.142</i>	3	1	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.13</i>	11	3	2	5	3	3	2	2 ¹ 3 ¹ 6 ¹	0.585	1.000	0	2.550	hu
<i>GS.142</i>	4	2	3	3	3	3	1	1 ¹ 3 ¹	0.594	0.750	0.250	2.250	p

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3
<i>GS.13</i>	<i>Supp_n</i>	6	9	-
	<i>k.k'(p)</i>	3.3 (-A)	2.2 (-B)	-
	<i>PF_n</i>	1/4	3/4	-
	<i>Sub_n</i>	22	26	32
	<i>k.k'(p)</i>	1.3 (E)	1.2 (D)	2.3 (C)
	<i>PF_n</i>	2/11	3/11	6/11
<i>GS.142</i>	<i>Supp_n</i>	127	131	137
	<i>k.k'(p)</i>	2.3 (-A)	1.3 (-A)	1.2 (-A)
	<i>PF_n</i>	2/11	3/11	6/11
	<i>Sub_n</i>	149	152	-
	<i>k.k'(p)</i>	2.2 (B)	1.1 (C)	-
	<i>PF_n</i>	1/4	3/4	-

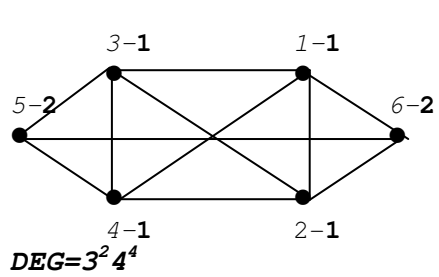
Graph-structures *GS.14* (6.11.5) and *GS.143* (6.4.5) (by Graph Atlas G199 and G70).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	5	2 ¹ 4 ¹	0.645	1 ¹ 2 ¹ 4 ³	2.174	0.444	8	193

GS.14, its binary signs and semiotic model SM:

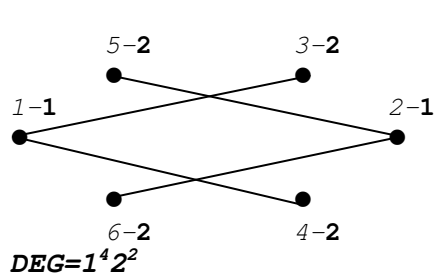
A: -2.5.7; B: +2.3.3; C: +2.4.6; D: +2.5.8; E: +3.6.11.



1	1	1	1	2	2			<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCDE</i>	12
0	D	C	C	-A	B	1	11210	1 31
0	C	C	-A	B	B	2	11210	1 31
0	D	B	-A	A	B	3	11210	1 31
0	B	-A	A	A	B	4	11210	1 31
0	E					5	22001	2 21
0						6	22001	2 21

GS.143 (complement of *GS.14*), its binary signs and semiotic model SM:

A: -2.3.2; B: -u.2.0; C: +1.2.1.



1	1	2	2	2	2			<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>	12
0	-B	C	C	-B	-B	1	032	1 02
0	-B	-B	C	C	C	2	032	1 02
0	-A	-B	-B	-B	-B	3	131	2 10
0	-B	-B	-B	-B	-B	4	131	2 10
0	-A	-B	-B	-B	-B	5	131	2 10
0						6	131	3 10

Correspondence of vertex positions (orbits):

<i>GS.14</i>	1	2
<i>GS.143</i>	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.14</i>	11	4	1	5	4	4	2	1 ¹ 2 ¹ 4 ²	0.473	0.909	0	2.573	h
<i>GS.143</i>	4	1	4	3	2	0	2	4 ¹	1.000	0	1.000	2.500	bfp

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
<i>GS.14</i>	<i>Supp_n</i>	9			
	<i>k.k'(p)</i>	1.2 (-A)	-	-	-
	<i>PF_n</i>	4/4			
	<i>Sub_n</i>	22	23	28	33
<i>GS.143</i>	<i>k.k'(p)</i>	1.1 (D)	2.2 (E)	1.1 (C)	1.2 (B)
	<i>PF_n</i>	2/11	1/11	4/11	4/11
	<i>Supp_n</i>	127	128	133	138
	<i>k.k'(p)</i>	2.2 (-A)	1.1 (-B)	2.2 (-B)	1.2 (-B)
<i>GS.143</i>	<i>PF_n</i>	2/11	1/11	4/11	4/11
	<i>Sub_n</i>	152			
<i>GS.143</i>	<i>k.k'(p)</i>	1.2 (C)	-	-	-
	<i>PF_n</i>	4/4			

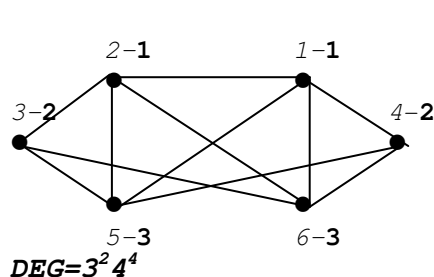
Graph-structures GS.15 (6.11.6) and GS.144 (6.4.6) (by Graph Atlas G198 and G69).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	7	2 ³	0.523	1 ³ 2 ² 4 ²	2.574	0.341	4	396

GS.15, its binary signs and semiotic model SM:

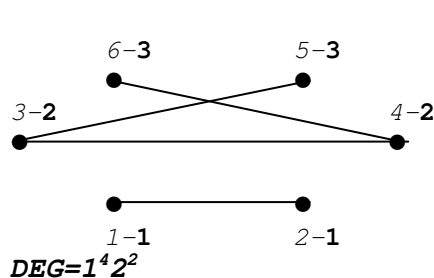
A: -2.6.11; B: -2.5.8; C: -2.4.4; D: +2.3.3; E: +2.4.5.



1	1	2	2	3	3					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE			
0	E	-B	E	E	E	1	01004	1	112	
0	E	-B	E	E	E	2	01004	1	112	
0	-C		D	D		3	01121	2	102	
0	D	D				4	01121	2	102	
0	-A					5	10022	3	220	
0						6	10022	3	220	

GS.144 (complement of GS.15), its binary signs and semiotic model SM:

A: -3.4.3; B: -2.3.2; C: -u.2.0; D: +1.2.1.



1	1	2	2	3	3					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCD			
0	D	-C	-C	-C	-C	1	0041	1	100	
0	-C	-C	-C	-C		2	0041	1	100	
0	D	D	-B			3	0122	2	011	
0	-B	D				4	0122	2	011	
0	-A					5	1121	3	010	
0						6	1121	3	010	

Correspondence of vertex positions (orbits):

GS.27	1	2	3
GS.132	3	2	1

Distinguishing invariants and measures:

GS	E	N ^f	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.15	11	4	3	5	3	3	2	1 ¹ 2 ¹ 4 ²	0.473	1.000	0	2.573	hpu
GS.144	4	3	4	4	2	0	3	1 ² 2 ¹	0.250	0	1.000	2.500	bfp

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4
GS.15	Supp _n	5	8	9	-
	k.k' (p)	2.2 (-C)	3.3 (-A)	1.2 (-B)	-
	PF _n	1/4	1/4	2/4	-
	Sub _n	21	26	28	29
GS.144	k.k' (p)	1.1 (E)	1.2 (E)	1.3 (E)	2.3 (D)
	PF _n	1/11	2/11	4/11	4/11
	Supp _n	126	131	133	134
	k.k' (p)	3.3 (-A)	2.3 (-B)	1.3 (-C)	1.2 (-C)
GS.144	PF _n	1/11	2/11	4/11	4/11
	Sub _n	148	151	152	-
GS.144	k.k' (p)	2.2 (D)	1.1 (D)	2.3 (D)	-
	PF _n	1/4	1/4	2/4	-

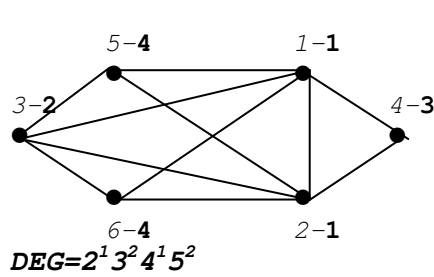
Graph-structures *GS.16* (6.11.7) and *GS.145* (6.4.7) (by Graph Atlas G192 and G62).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	8	1 ² 2 ²	0.523	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	396

GS.16, its binary signs and semiotic model SM:

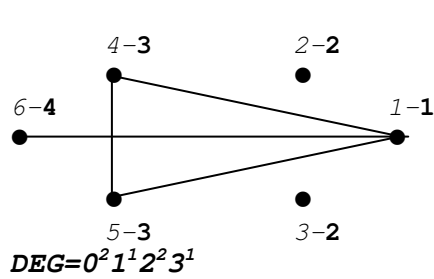
A: -2.5.9; B: -2.4.5; C: +2.3.3; D: +2.4.6; E: +2.5.9; F: +2.6.11.



1	2	3	4	5	6	i	ABCDEF	k	1234
1	2	3	4	5	6	1	001211	1	1112
0	F	E	C	D	D	2	001211	1	1112
0	-B	D	D			3	010220	2	2002
0	-B	-B				4	032000	3	2000
0	-A					5	110300	4	2100
0						6	110300	4	2100

GS.145 (complement of *GS.16*), its binary signs and semiotic model SM:

A: -2.3.2; B: -u.2.0; C: +1.2.1; D: +2.3.3.



1	2	3	4	5	6	i	ABCD	k	1234
1	2	3	4	5	6	1	0212	1	0021
0	-B	-B	D	D	C	2	0500	2	0000
0	-B	-B	-B	-B		3	0500	2	0000
0	D	-A				4	1202	3	1010
0	-A					5	1202	3	1010
0						6	2210	4	1000

Correspondence of vertex positions (orbits):

<i>GS.16</i>	1	2	3	4
<i>GS.145</i>	2	4	1	3

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.16</i>	11	5	3	6	4	3	2	1 ¹ 2 ³ 4 ¹	0.368	1.000	0	2.517	hp
<i>GS.145</i>	4	3	5	4	3	3	2	1 ² 2 ¹	0.250	0.750	0.250	1.906	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5
<i>GS.16</i>	<i>Supp_n</i>	6	7	8	-	-
	<i>k.k'(p)</i>	2.3 (-B)	4.4 (-A)	3.4 (-B)	-	-
	<i>PF_n</i>	1/4	1/4	2/4	-	-
	<i>Sub_n</i>	24	26	27	30	32
<i>GS.145</i>	<i>k.k'(p)</i>	2.4 (D)	1.1 (F)	1.3 (C)	1.4 (D)	1.2 (F)
	<i>PF_n</i>	2/11	1/11	2/11	4/11	2/11
	<i>Supp_n</i>	129	131	132	135	137
	<i>k.k'(p)</i>	3.4 (-A)	2.2 (-B)	1.2 (-B)	2.3 (-B)	2.4 (-B)
<i>GS.145</i>	<i>PF_n</i>	2/11	1/11	2/11	4/11	2/11
	<i>Sub_n</i>	149	150	151	-	-
<i>GS.145</i>	<i>k.k'(p)</i>	1.4 (C)	3.3 (D)	1.3 (D)	-	-
	<i>PF_n</i>	1/4	1/4	2/4	-	-

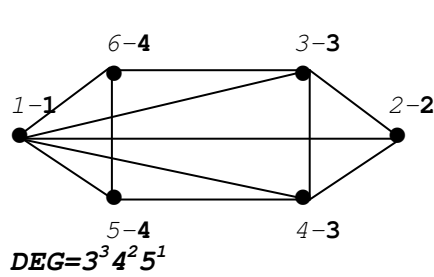
Graph-structures *GS.17* (6.11.8) and *GS.146* (6.4.8) (by Graph Atlas G196 and G66).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	9	1 ² 2 ²	0.266	1 ³ 2 ⁶	3.106	0.205	2	792

GS.17, its binary signs and semiotic model SM:

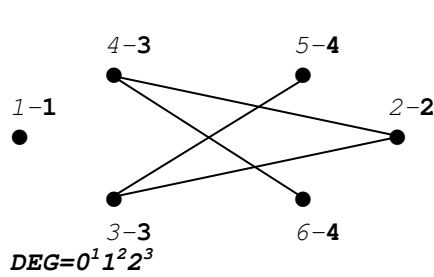
A:-2.5.8; B:-2.4.5; C:+2.3.3; D:+2.4.5; E:+2.4.6; F:+2.5.8.



1	2	3	3	4	4					<i>k</i>	
1	2	3	4	5	6	<i>i</i>	ABCDEF				1234
0	E	F	F	D	D	1	000212	1	0122		
0	E	E	-B	-B		2	020030	2	1020		
0	E	-A	C			3	101021	3	1111		
0	C	-A				4	101021	3	1111		
0	C					5	112100	4	1011		
0	6					6	112100	4	1011		

GS.146 (complement of *GS.17*), its binary signs and semiotic model SM:

A:-4.5.4; B:-3.4.3; C:-2.3.2; D:-u.2.0; E:+1.2.1.



1	2	3	3	4	4					<i>k</i>	
1	2	3	4	5	6	<i>i</i>	ABCDE				1234
0	-D	-D	-D	-D	-D	1	00050	1	0000		
0	E	E	-C	-C		2	00212	2	0020		
0	-C	E	-B			3	01112	3	0101		
0	-B	E				4	01112	3	0101		
0	-A					5	11111	4	0010		
0	6					6	11111	4	0010		

Correspondence of vertex positions (orbits):

<i>GS.17</i>	1	2	3	4
<i>GS.146</i>	1	2	4	3

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^t</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.17</i>	11	7	2	6	4	3	2	1 ³ 2 ⁴	0.210	1.000	0	2.556	hp
<i>GS.146</i>	4	2	7	5	2	0	4	2 ²	0.500	0	1.000	2.250	bfp

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5	6	7
<i>GS.17</i>	<i>Supp_n</i>	8	9					
	<i>k.k'</i> (<i>p</i>)	3.4 (-A)	2.4 (-B)	-	-	-	-	-
	<i>PF_n</i>	2/4	2/4					
	<i>Sub_n</i>	20	28	29	30	31	32	33
<i>GS.146</i>	<i>k.k'</i> (<i>p</i>)	3.3 (E)	1.3 (F)	1.2 (F)	4.4 (C)	3.4 (C)	2.3 (E)	1.4 (D)
	<i>PF_n</i>	1/11	2/11	1/11	1/11	2/11	2/11	2/11
	<i>Supp_n</i>	125	133	134	135	136	137	138
	<i>k.k'</i> (<i>p</i>)	4.4	1.4	1.2	3.3	3.4	2.4	1.3
<i>GS.146</i>	<i>PF_n</i>	(-A)	(-D)	(-D)	(-C)	(-B)	(-C)	(-D)
	<i>PF_n</i>	1/11	2/11	1/11	1/11	2/11	2/11	2/11
	<i>Sub_n</i>	151	152					
	<i>k.k'</i> (<i>p</i>)	3.4 (E)	2.3 (E)	-	-	-	-	-
<i>PF_n</i>	2/4	2/4						

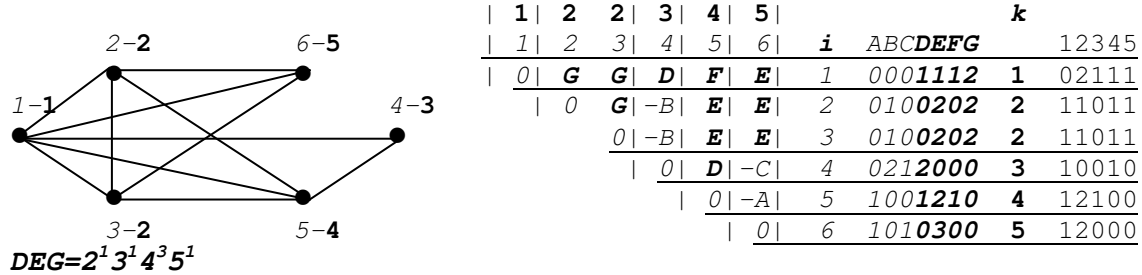
Graph-structures *GS.18* (6.11.9) and *GS.147* (6.4.9) (by Graph Atlas G193 and G65).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	792

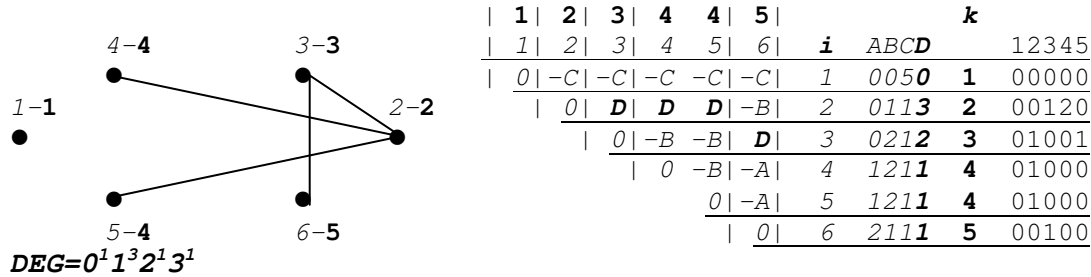
GS.18, its binary signs and semiotic model SM:

A:-2.5.9; B:-2.4.5; C:-2.3.2; D:+2.3.3; E:+2.4.6; F:+2.5.8; G:+2.5.9.



GS.147 (complement of *GS.18*), its binary signs and semiotic model SM:

A:-3.4.3; B:-2.3.2; C:-u.2.0; D:+1.2.1.



Correspondence of vertex positions (orbits):

<i>GS.18</i>	1	2	3	4	5
<i>GS.147</i>	1	4	2	5	3

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.18</i>	11	8	3	7	4	3	2	1 ⁵ 2 ³	0.158	1.000	0	2.534	hp
<i>GS.147</i>	4	3	8	4	2	0	3	1 ² 2 ¹	0.250	0	1.000	2.156	bfp

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5	6	7	8
<i>GS.18</i>	<i>Supp_n</i>	7	8	9	-	-	-	-	-
	<i>k.k'</i>	4.5	2.3	3.5	-	-	-	-	-
	(<i>p</i>)	(-A)	(-B)	(-C)	-	-	-	-	-
	<i>PF_n</i>	1/4	2/4	1/4	-	-	-	-	-
<i>GS.147</i>	<i>Sub_n</i>	23	25	27	29	30	31	32	33
	<i>k.k' (p)</i>	1.5 (E)	1.3 (D)	3.4 (D)	1.2 (G)	2.5 (E)	2.4 (E)	2.2 (G)	1.4 (F)
	<i>PF_n</i>	1/11	1/11	1/11	2/11	2/11	2/11	1/11	1/11
	<i>Supp_n</i>	128	130	132	134	135	136	137	138
<i>GS.147</i>	<i>k.k'</i>	1.3	1.2	2.5	1.4	3.4	4.5	4.4	1.5
	(<i>p</i>)	(-C)	(-C)	(-B)	(-C)	(-B)	(-A)	(-B)	(-C)
	<i>PF_n</i>	1/11	1/11	1/11	2/11	2/11	2/11	1/11	1/11
	<i>Sub_n</i>	150	151	152	-	-	-	-	-
<i>GS.147</i>	<i>k.k' (p)</i>	3.5 (D)	2.4 (D)	2.3 (D)	-	-	-	-	-
	<i>PF_n</i>	1/4	2/4	1/4	-	-	-	-	-

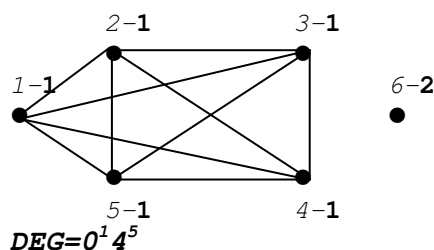
Graph-structures *GS.19* (6.10.1) and *GS.124* (6.5.1) (by Graph Atlas G176 and G77).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	2	1 ¹ 5 ¹	0.749	5 ¹ 10 ¹	0.918	0.765	120	6

GS.19, its binary signs and semiotic model SM:

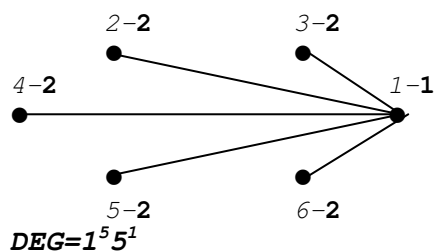
$$A: -u.2.0; \quad B: +2.5.10.$$



						<i>k</i>		
1	2	3	4	5	6	<i>i</i>	<i>AB</i>	
1	2	3	4	5	6	1	14	1 40
0	B	B	B	B	-A	2	14	1 40
	0	B	B	B	-A	3	14	1 40
		0	B	B	-A	4	14	1 40
			0	B	-A	5	14	1 40
				0	-A	6	50	2 00

GS.124 (complement of *GS.19*), its binary signs and semiotic model SM:

$$A: -2.3.2; \quad B: +1.2.1.$$



						<i>k</i>		
1	2	3	4	5	6	<i>i</i>	<i>AB</i>	
1	2	3	4	5	6	1	05	1 05
0	B	B	B	B	B	2	41	2 10
	0	-A	-A	-A	-A	3	41	2 10
		0	-A	-A	-A	4	41	2 10
			0	-A	-A	5	41	2 10
				0	-A	6	41	2 10

Correspondence of vertex positions (orbits):

$$\begin{matrix} GS.19 & 1 & 2 \\ GS.124 & 2 & 1 \end{matrix}$$

Distinguishing invariants and measures:

<i>GS</i>	$ E $	N^+	N^-	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.19</i>	10	1	1	2	5	3	1	10 ¹	1.000	1.000	0	2.323	-
<i>GS.124</i>	5	1	1	2	2	0	2	5 ¹	1.000	0	1.000	2.161	bptu

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	Adj_n	<i>1</i>
<i>GS.19</i>	$Supp_n$	11
	$k.k'(p)$	1.2 (-A)
	PF_n	5/5
	Sub_n	39
<i>GS.124</i>	$k.k'(p)$	1.1 (B)
	PF_n	10/10
	$Supp_n$	108
	$k.k'(p)$	2.2 (-A)
<i>GS.124</i>	PF_n	10/10
	Sub_n	140
<i>GS.124</i>	$k.k'(p)$	1.2 (B)
	PF_n	5/5

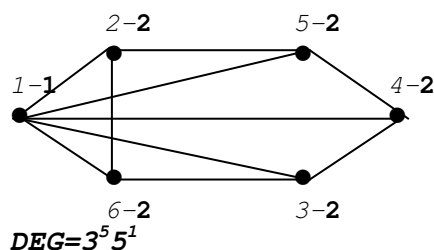
Graph-structures *GS.20* (6.10.2) and *GS.125* (6.5.2) (by Graph Atlas G187 and G76).

Common invariants and measures of the structure and its complement:

Symmetry	K	N	SVV	SV	SRV	HR	SR	aut	3003PS
Partial	2	3	1 ¹ 5 ¹	0.749	5 ³	1.585	0.594	10	72

GS.20, its binary signs and semiotic model SM:

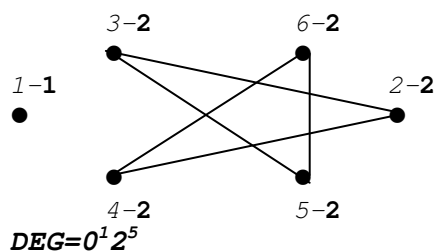
$$A: -2.4.5; B: +2.3.3; C: +2.4.5.$$



1	2	2	2	2	2	i	ABC	k
1	2	3	4	5	6	1	005	12
0	C	C	C	C	C	1	005	05
0	-A	-A	B	B		2	221	12
		0	B	-A	B	3	221	12
			0	B	-A	4	221	12
				0	-A	5	221	12
					0	6	221	12

GS.125 (complement of *GS.20*), its binary signs and semiotic model SM:

$$A: -2.3.2; B: -u.2.0; C: +4.5.5.$$



1	2	2	2	2	2	i	ABC	k
1	2	3	4	5	6	1	050	00
0	-B	-B	-B	-B	-B	1	050	00
0	-A	C	C	-A		2	212	02
		0	-A	C	C	3	212	02
			0	-A	C	4	212	02
				0	-A	5	212	02
					0	6	212	02

Correspondence of vertex positions (orbits):

<i>GS.20</i>	1	2
<i>GS.125</i>	1	2

Distinguishing invariants and measures:

GS	 E 	N^f	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
<i>GS.20</i>	10	2	1	3	3	3	2	5 ²	0.699	1.000	0	2.553	hp
<i>GS.125</i>	5	1	2	3	2	5	2	5 ¹	1.000	0	0	2.322	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj_n	1	2
<i>GS.20</i>	Supp_n	17	
	k.k'(p)	2.2 (-A)	-
	PF_n	5/5	
<i>GS.125</i>	Sub_n	46	47
	k.k'(p)	1.2 (C)	2.2 (B)
	PF_n	5/10	5/10
<i>GS.125</i>	Supp_n	115	116
	k.k'(p)	1.2 (-B)	2.2 (-A)
	PF_n	5/10	5/10
<i>GS.125</i>	Sub_n	146	
	k.k'(p)	2.2 (C)	-
	PF_n	5/5	

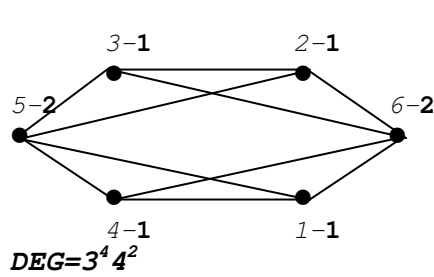
Graph-structures *GS.21* (6.10.3) and *GS.126* (6.5.3) (by Graph Atlas G190 and G85).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	4	2 ¹ 4 ¹	0.645	1 ¹ 2 ¹ 4 ¹ 8 ¹	1.640	0.580	16	45

GS.21, its binary signs and semiotic model SM:

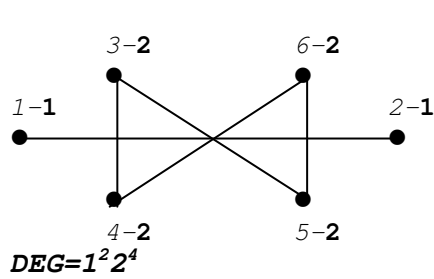
$$A:-2.6.10; B:-2.4.4; C:+2.3.3; D:+2.4.5.$$



1	1	1	1	2	2			<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>	12
0	-B	-B	D	C	C	1	0221	1 12
	0	D	-B	C	C	2	0221	1 12
		0	-B	C	C	3	0221	1 12
			0	C	C	4	0221	1 12
				0	-A	5	1040	2 12
					0	6	1040	2 12

GS.126 (complement of *GS.21*), its binary signs and semiotic model SM:

$$A:-2.4.4; B:-u.2.0; C:+1.2.1; D:+3.4.4.$$



1	1	2	2	2	2			<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>	12
0	C	-B	-B	-B	-B	1	0410	1 10
	0	-B	-B	-B	-B	2	0410	1 10
		0	D	D	-A	3	1202	2 02
			0	-A	D	4	1202	2 02
				0	D	5	1202	2 02
					0	6	1202	2 02

Correspondence of vertex positions (orbits):

<i>GS.21</i>	1	2
<i>GS.126</i>	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.21</i>	10	2	2	4	3	3	2	2 ¹ 8 ¹	0.783	1.000	0	2.571	hp
<i>GS.126</i>	5	2	2	4	2	4	2	1 ¹ 4 ¹	0.689	0	0.200	2.522	bp

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2
<i>GS.21</i>	<i>Supp_n</i>	10	15
	<i>k.k'(p)</i>	2.2 (-A)	1.1 (-B)
	<i>PF_n</i>	1/5	4/5
	<i>Sub_n</i>	41	48
	<i>k.k'(p)</i>	1.1 (D)	1.2 (C)
	<i>PF_n</i>	2/10	8/10
<i>GS.126</i>	<i>Supp_n</i>	110	117
	<i>k.k'(p)</i>	2.2 (-A)	1.2 (-B)
	<i>PF_n</i>	2/10	8/10
	<i>Sub_n</i>	139	144
	<i>k.k'(p)</i>	1.1 (C)	2.2 (D)
	<i>PF_n</i>	1/5	4/5

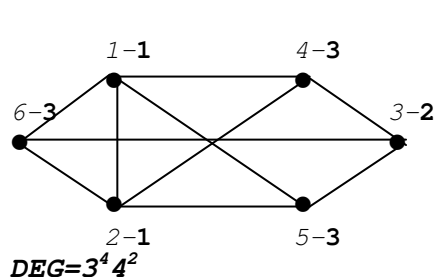
Graph-structures GS.22 (6.10.4) and GS.127 (6.5.4) (by Graph Atlas G189 and G84).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	1 ¹ 2 ¹ 3 ¹	0.478	1 ¹ 2 ¹ 3 ² 6 ¹	2.106	0.461	12	60

GS.22, its binary signs and semiotic model SM:

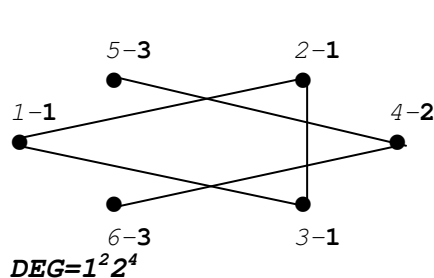
$$A: -2.5.7; B: -2.5.6; C: +2.3.3; D: +2.5.7; E: +3.6.10.$$



1	1	2	3	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCDE</i>		123
0	<i>D</i>	- <i>B</i>	<i>C</i>	<i>C</i>	<i>C</i>	1	01310	<i>1</i>	103
0	- <i>B</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	2	01310	<i>1</i>	103
0	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	<i>E</i>	3	02003	<i>2</i>	003
0	- <i>A</i>	- <i>A</i>				4	20201	<i>3</i>	210
		- <i>A</i>				5	20201	<i>3</i>	210
						6	20201	<i>3</i>	210

GS.127 (complement of GS.22), its binary signs and semiotic model SM:

$$A: -2.3.2; B: -u.2.0; C: +1.2.1; D: +2.3.3.$$



1	1	1	2	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>		123
0	<i>D</i>	<i>D</i>	- <i>B</i>	- <i>B</i>	- <i>B</i>	1	0302	<i>1</i>	200
	0	<i>D</i>	- <i>B</i>	- <i>B</i>	- <i>B</i>	2	0302	<i>1</i>	200
		0	- <i>B</i>	- <i>B</i>	- <i>B</i>	3	0302	<i>1</i>	200
		0	<i>C</i>	<i>C</i>		4	0320	<i>2</i>	002
		0	- <i>A</i>			5	1310	<i>3</i>	010
						6	1310	<i>3</i>	010

Correspondence of vertex positions (orbits):

GS.22	1	2	3
GS.127	3	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.22	10	3	2	5	3	4	2	1 ¹ 3 ¹ 6 ¹	0.610	0.700	0	2.571	<i>h</i>
GS.127	5	2	3	4	3	3	2	2 ¹ 3 ¹	0.582	0.600	0.400	2.522	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	<i>1</i>	<i>2</i>	<i>3</i>
GS.22	<i>Supp_n</i>	13	14	-
	<i>k.k'(p)</i>	1.2 (- <i>B</i>)	3.3 (- <i>A</i>)	-
	<i>PF_n</i>	2/5	3/5	-
	<i>Sub_n</i>	34	44	52
	<i>k.k'(p)</i>	1.1 (<i>D</i>)	2.3 (<i>E</i>)	1.3 (<i>C</i>)
	<i>PF_n</i>	1/10	3/10	6/10
GS.127	<i>Supp_n</i>	103	113	121
	<i>k.k'(p)</i>	3.3 (- <i>A</i>)	1.2 (- <i>B</i>)	1.3 (- <i>B</i>)
	<i>PF_n</i>	1/10	3/10	6/10
	<i>Sub_n</i>	142	143	-
	<i>k.k'(p)</i>	2.3 (<i>C</i>)	1.1 (<i>D</i>)	-
	<i>PF_n</i>	2/5	3/5	-

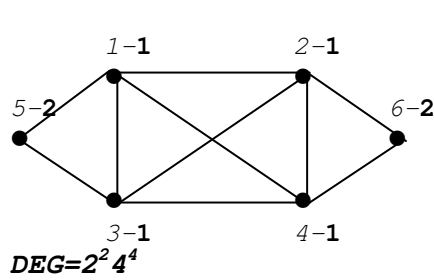
Graph-structures *GS.23* (6.10.5) and *GS.128* (6.5.5) (by Graph Atlas G181 and G79).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	5	2 ¹ 4 ¹	0.645	1 ¹ 2 ¹ 4 ³	2.174	0.444	8	90

GS.23, its binary signs and semiotic model SM:

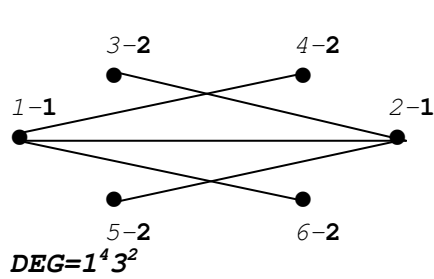
$$A: -3.6.10; B: -2.4.5; C: +2.3.3; D: +2.4.6; E: +2.5.8.$$



										<i>k</i>	
1	1	1	1	2	2	<i>i</i>	ABCDE				
1	2	3	4	5	6	1	01121	1	31		
0	D	E	D	C	-B	2	01121	1	31		
0	D	E	-B	C		3	01121	1	31		
0	D	C	-B			4	01121	1	31		
0	-B	C				5	12200	2	20		
0	-A					6	12200	2	20		

GS.128 (complement of *GS.23*), its binary signs and semiotic model SM:

$$A: -3.4.3; B: -2.3.2; C: +1.2.1.$$



										<i>k</i>	
1	1	2	2	2	2	<i>i</i>	ABC				
1	2	3	4	5	6	1	023	1	12		
0	C	-B	C	-B	C	2	023	1	12		
0	C	-B	C	-B		3	221	2	10		
0	-A	-B	-A			4	221	2	10		
0	-A	-B				5	221	2	10		
0	-A					6	221	2	10		

Correspondence of vertex positions (orbits):

<i>GS.23</i>	1	2
<i>GS.128</i>	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.23</i>	10	3	2	5	4	3	3	2 ¹ 4 ²	0.542	1.000	0	2.522	ehp
<i>GS.128</i>	5	2	3	3	2	0	3	1 ¹ 4 ¹	0.689	0	1.000	2.371	bptu

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3
<i>GS.23</i>	<i>Supp_n</i>	14	18	-
	<i>k.k'(p)</i>	2.2 (-A)	1.2 (-B)	-
	<i>PF_n</i>	1/5	4/5	-
	<i>Sub_n</i>	44	45	53
<i>GS.128</i>	<i>k.k'(p)</i>	1.1 (E)	1.1 (D)	1.2 (C)
	<i>PF_n</i>	2/10	4/10	4/10
	<i>Supp_n</i>	113	114	122
	<i>k.k'(p)</i>	2.2 (-B)	2.2 (-A)	1.2 (-B)
<i>GS.128</i>	<i>PF_n</i>	2/10	4/10	4/10
	<i>Sub_n</i>	143	147	-
	<i>k.k'(p)</i>	1.1 (C)	1.2 (C)	-
	<i>PF_n</i>	1/5	4/5	-

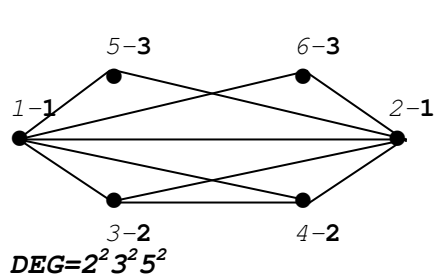
Graph-structures GS.24 (6.10.6) and GS.129 (6.5.6) (by Graph Atlas G179 and G71).

Common invariants and measures of the structure and its complement:

Symmetry	K	N	SVV	SV	SRV	HR	SR	aut	3003PS
Partial	3	6	2 ³	0.523	1 ³ 4 ³	2.307	0.410	8	90

GS.24, its binary signs and semiotic model SM:

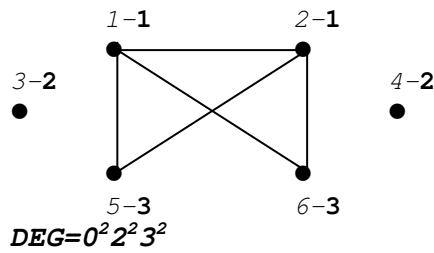
$$A: -2.4.5; B: +2.3.3; C: +2.4.6; D: +2.6.10.$$



1	2	3	3					k
1	2	3	4	5	6	i	ABCD	123
0	D	C	C	B	B	1	0221	1 122
0	C	C	B	B		2	0221	1 122
0	C	-A	-A			3	2030	2 210
0	-A	-A				4	2030	2 210
0	-A					5	3200	3 200
0						6	3200	3 200

GS.129 (complement of **GS.24**), its binary signs and semiotic model SM:

$$A: -2.4.5; B: -u.2.0; C: +2.3.3; D: +2.4.5.$$



1	2	3	3					k
1	2	3	4	5	6	i	ABCD	123
0	D	-B	-B	C	C	1	0221	1 102
0	-B	-B	C	C		2	0221	1 102
0	-B	-B	-B			3	0500	2 000
0	-B	-B				4	0500	2 000
0	-A					5	1220	3 200
0						6	1220	3 200

Correspondence of vertex positions (orbits):

GS.24	1	2	3
GS.129	2	3	1

Distinguishing invariants and measures:

GS	 E 	N^f	N⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.24	10	4	2	4	4	3	2	1 ² 4 ²	0.482	1.000	0	2.486	p
GS.129	5	2	4	4	3	3	2	1 ¹ 4 ¹	0.689	1.000	0	1.971	p

Identifiers of adjacent structures and characteristics of morphisms **F_n**:

GS	Adj_n	1	2	3	4
GS.24	Supp_n	10	16		
	k.k' (p)	3.3 (-A)	2.3 (-A)	-	-
	PF_n	1/5	4/5		
	Sub_n	35	41	49	50
GS.129	k.k' (p)	2.2 (C)	1.1 (D)	1.2 (C)	1.3 (B)
	PF_n	1/10	1/10	4/10	4/10
	Supp_n	104	110	118	119
	k.k' (p)	3.3 (-A)	2.2 (-B)	2.3 (-B)	1.2 (-B)
GS.129	PF_n	1/10	1/10	4/10	4/10
	Sub_n	139	145		
GS.129	k.k' (p)	1.1 (D)	1.3 (C)	-	-
	PF_n	1/5	4/5		

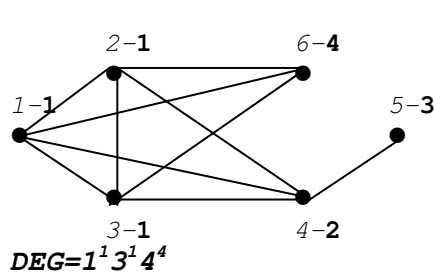
Graph-structures GS.25 (6.10.7) and GS.130 (6.5.7) (by Graph Atlas G178 and G78).

Common invariants and measures of the structure and its complement:

Symmetry	K	N	SVV	SV	SRV	HR	SR	aut	3003PS
Partial	4	7	1 ³ 3 ¹	0.186	1 ³ 3 ⁴	2.639	0.325	6	120

GS.25, its binary signs and semiotic model SM:

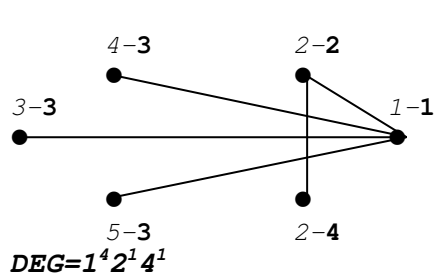
A:-3.6.10; B:-2.5.9; C:-2.3.2; D:+1.2.1; E:+2.4.6; F:+2.5.9.



1	2	3	4	k				
1	2	3	4	5	6	i	ABCDEF	1234
0	F	F	E -C	E	1	001022	1	2101
0	F	E -C	E	2	001022	1	2101	
0	E -C	E	3	001022	1	2101		
0	D -B	4	010130	2	3010			
0	-A	5	103100	3	0100			
0	6	110030	4	3000				

GS.130 (complement of GS.25), its binary signs and semiotic model SM:

A:-3.4.3; B:-2.3.2; C:+1.2.1.



1	2	3	3	3	4	k			
1	2	3	4	5	6	i	ABC	1234	
0	C	C	C	C	-B	1	014	1	0130
0	-B	-B	-B	C	2	032	2	1001	
0	-B	-B	-A	3	131	3	1000		
0	-B	-A	4	131	3	1000			
0	-A	5	131	3	1000				
0	6	311	4	0100					

Correspondence of vertex positions (orbits):

GS.25	1	2	3	4
GS.130	3	4	1	2

Distinguishing invariants and measures:

GS	E	N ^f	N ^r	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.25	10	4	3	6	4	3	3	1 ¹ 3 ³	0.429	0.900	0.100	2.484	p
GS.130	5	3	4	3	2	0	3	1 ² 3 ¹	0.410	0	1.000	2.322	bptu

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4
GS.25	Supp _n	11	12	18	-
	k.k'(p)	2.4(-B)	3.4(-A)	1.3(-C)	-
	PF _n	1/5	1/5	3/5	-
	Sub _n	39	43	51	53
GS.130	k.k'(p)	2.3(D)	1.2(E)	1.1(E)	1.4(E)
	PF _n	1/10	3/10	3/10	3/10
	Supp _n	108	112	120	122
	k.k'(p)	1.4(-B)	3.4(-A)	3.3(-B)	2.3(-B)
GS.130	PF _n	1/10	3/10	3/10	3/10
	Sub _n	140	141	147	-
GS.130	k.k'(p)	2.4(C)	1.2(C)	1.3(C)	-
	PF _n	1/5	1/5	3/5	-

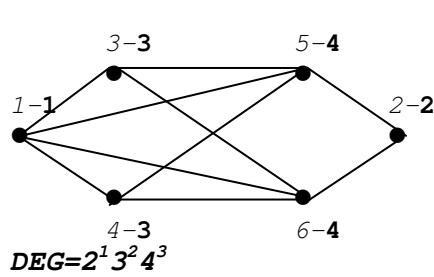
Graph-structures GS.26 (6.10.8) and GS.131 (6.5.8) (by Graph Atlas G186 and G82).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	180

GS.26, its binary signs and semiotic model SM:

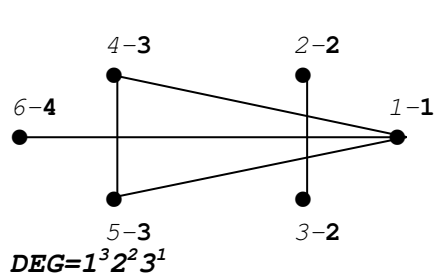
A: -2.6.10; B: -2.5.8; C: -2.4.4; D: +2.3.3; E: +2.4.5; F: +3.6.10.



1	2	3	3	4	4	<i>k</i>				
1	2	3	4	5	6	<i>i</i>	ABCDEF	1234		
0	-C	E	E	E	E	1	001040	1	0022	
0	-C	-C	F	F		2	003002	2	0002	
0	-B	D	D			3	011210	3	1002	
0	D	D				4	011210	3	1002	
0	-A					5	100211	4	1120	
0						6	100211	4	1120	

GS.131 (complement of GS.26), its binary signs and semiotic model SM:

A: -2.3.3; B: -u.2.0; C: +1.2.1; D: +2.3.3.



1	2	2	3	3	4	<i>k</i>				
1	2	3	4	5	6	<i>i</i>	ABCD	1234		
0	-B	-B	D	D	C	1	0212	1	0021	
0	C	-B	-B	-B		2	0410	2	0100	
0	-B	-B	-B			3	0410	2	0100	
0	D	-A				4	1202	3	1010	
0	-A					5	1202	3	1010	
0						6	2210	4	1000	

Correspondence of vertex positions (orbits):

GS.26	1	2	3	4
GS.131	4	1	3	2

Distinguishing invariants and measures:

GS	E	N ^f	N ⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.26	10	4	4	6	3	4	2	2 ³ 4 ¹	0.421	0.800	0	2.546	hp
GS.131	5	4	4	4	3	3	2	1 ³ 2 ¹	0.172	0.600	0.400	2.446	p

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4
GS.26	Supp _n	12	13	15	16
	k.k' (p)	3.3 (-B)	1.2 (-C)	2.3 (-C)	4.4 (-A)
	PF _n	1/5	1/5	2/5	1/5
	Sub _n	41	51	52	54
	k.k' (p)	1.3 (E)	2.4 (F)	1.4 (E)	3.4 (D)
GS.131	Supp _n	110	120	121	123
	k.k' (p)	3.4 (-A)	1.2 (-B)	2.4 (-B)	2.3 (-B)
	PF _n	2/10	2/10	2/10	4/10
	Sub _n	141	142	144	145
	k.k' (p)	3.3 (D)	1.4 (D)	1.3 (D)	2.2 (C)
	PF _n	1/5	1/5	2/5	1/5

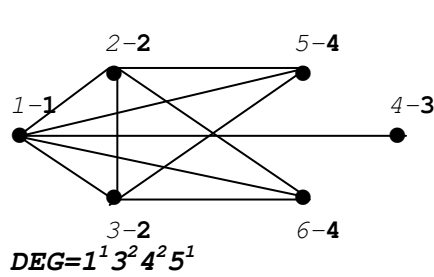
Graph-structures GS.27 (6.10.9) and GS.132 (6.5.9) (by Graph Atlas G177 and G72).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>Aut</i>	<i>3003PS</i>
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	180

GS.27, its binary signs and semiotic model SM:

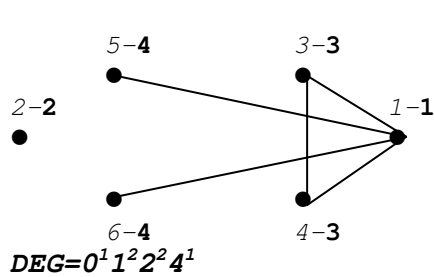
$$A: -2.5.9; B: -2.3.2; C: +1.2.1; D: +2.4.6; E: +2.5.9.$$



1	2	3	4	4			<i>k</i>
1	2	3	4	5	6	<i>i</i> ABCDE	1234
0	E	E	C	D	D	1	00122 1 0212
0	E	-B	D	D		2	01022 2 1102
0	-B	D	D			3	01022 2 1102
0	-B	-B				4	04100 3 1000
0	-A					5	11030 4 1200
0						6	11030 4 1200

GS.132 (complement of GS.27), its binary signs and semiotic model SM:

$$A: -2.3.2; B: -u.2.0; C: +1.2.1; D: +2.3.3.$$



1	2	3	3	4	4			<i>k</i>
1	2	3	4	5	6	<i>i</i> ABCD	1234	
0	-B	D	D	C	C	1	0122 1 0022	
0	-B	-B	-B	-B		2	0500 2 0000	
0	D	-A	-A			3	2102 3 1010	
0	-A	-A				4	2102 3 1010	
0	-A					5	3110 4 1000	
0						6	3110 4 1000	

Correspondence of vertex positions (orbits):

GS.27	1	2	3	4
GS.132	2	4	1	3

Distinguishing invariants and measures:

GS	E	N ⁺	N ⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.27	10	5	3	5	4	3	2	1 ² 2 ² 4 ¹	0.361	0.900	0.100	2.466	P
GS.132	5	3	5	4	3	3	2	1 ¹ 2 ²	0.345	0.600	0.400	2.122	P

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj _n	1	2	3	4	5
GS.27	Supp _n	11	16	18		
	$k.k'(p)$	4.4 (-A)	2.3 (-B)	3.4 (-B)	-	-
	PF _n	1/5	2/5	2/5		
	Sub _n	39	40	50	51	55
	$k.k'(p)$	1.3 (C)	2.2 (E)	2.4 (D)	1.2 (E)	1.4 (D)
GS.132	Supp _n	108	109	119	120	122
	$k.k'(p)$	1.2 (-B)	4.4 (-A)	3.4 (-A)	2.4 (-B)	2.3 (-B)
	PF _n	1/10	1/10	4/10	2/10	2/10
	Sub _n	140	145	147		
	$k.k'(p)$	3.3 (D)	1.4 (C)	1.3 (D)	-	-
	PF _n	1/5	2/5	2/5		

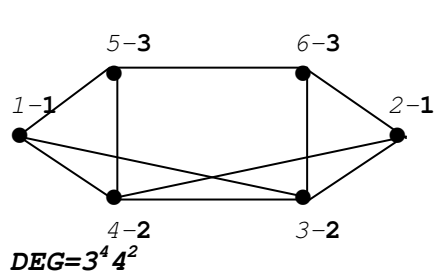
Graph-structures GS.28 (6.10.10) and GS.133 (6.5.10) (by Graph Atlas G188 and G83).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	9	2 ³	0.523	1 ³ 2 ⁶	3.107	0.205	2	360

GS.28, its binary signs and semiotic model SM:

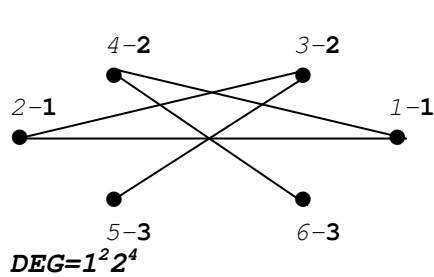
A:-2.5.7; B:-2.4.5; C:-2.4.4; D:+2.3.3; E:+2.4.5; F:+3.6.10.



1	1	2	2	3	3			<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEF	123
0	-B	D	E	D	-C	1	011210	1 021
0	E	D	-C	D		2	011210	1 021
0	E	-A	D			3	100220	2 211
0	D	-A				4	100220	2 211
0	F					5	101201	3 111
0						6	101201	3 111

GS.133 (complement of GS.28), its binary signs and semiotic model SM:

A:-5.6.5; B:-4.5.4; C:-3.4.3; D:-2.3.2; E:+1.2.1.



1	1	2	2	3	3			<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE	123
0	E	-D	E	-C	-D	1	00122	1 110
0	E	-D	-D	-C		2	00122	1 110
0	-C	E	-B			3	01112	2 101
0	-B	E				4	01112	2 101
0	-A					5	11111	3 010
0						6	11111	3 010

Correspondence of vertex positions (orbits):

GS.28	1	2	3
GS.133	1	3	2

Distinguishing invariants and measures:

GS	E	N ^f	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.28	10	6	3	6	3	4	2	1 ² 2 ⁴	0.241	0.900	0	2.571	hpu
GS.133	5	3	6	5	2	0	5	1 ¹ 2 ²	0.345	0	1.000	2.522	bptu

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4	5	6
GS.28	Supp _n	14	15	17			
	k.k'(p)	1.1 (-B)	1.3 (-C)	2.3 (-A)	-	-	-
	PF _n	1/5	2/5	2/5			
	Sub _n	36	45	46	48	52	54
	k.k'(p)	2.2 (E)	3.3 (F)	2.3 (D)	1.2 (D)	1.2 (E)	1.3 (D)
GS.133	Supp _n	105	114	115	117	121	123
	k.k'(p)	3.3 (-A)	2.2 (-C)	2.3 (-B)	1.3 (-C)	1.3 (-D)	1.2 (-D)
	PF _n	1/10	1/10	2/10	2/10	2/10	2/10
	Sub _n	143	144	146			
	k.k'(p)	1.1 (E)	1.2 (E)	2.3 (E)	-	-	-
	PF _n	1/5	2/5	2/5			

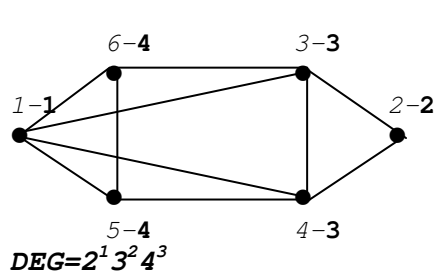
Graph-structures GS.29 (6.10.11) and GS.134 (6.5.11) (by Graph Atlas G184 and G80).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	9	1 ² 2 ²	0.266	1 ³ 2 ⁶	3.107	0.205	2	360

GS.29, its binary signs and semiotic model SM:

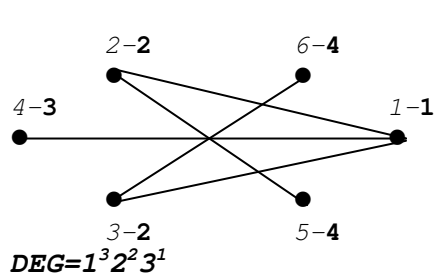
A:-2.5.8; B:-2.4.5; C:-2.3.2; D:+2.3.3; E:+2.4.5.



1	2	3	3	4	4	<i>k</i>				
1	2	3	4	5	6	<i>i</i>	ABCDE	1234		
0	-B	E	E	E	E	1	01004	1	0022	
0	D	D	-C	-C		2	01220	2	0020	
0	E	-A	D			3	10022	3	1111	
0	D	-A				4	10022	3	1111	
0	D					5	10121	4	1011	
0						6	10121	4	1011	

GS.134 (complement of GS.29), its binary signs and semiotic model SM:

A:-4.5.4; B:-3.4.3; C:-2.3.2; D:+1.2.1.



1	2	2	3	4	4	<i>k</i>				
1	2	3	4	5	6	<i>i</i>	ABCD	1234		
0	D	D	D	-C	-C	1	0023	1	0210	
0	-C	-C	D	-B		2	0122	2	1001	
0	-C	-B	D			3	0122	2	1001	
0	-B	-B				4	0221	3	1000	
0	-A					5	1211	4	0100	
0						6	1211	4	0100	

Correspondence of vertex positions (orbits):

GS.29	1	2	3	4
GS.134	3	1	4	2

Distinguishing invariants and measures:

GS	E	N ^f	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.29	10	6	3	5	3	3	2	1 ² 2 ⁴	0.241	1.000	0	2.546	hpu
GS.134	5	3	6	4	2	0	4	1 ¹ 2 ²	0.345	0	1.000	2.446	bptu

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4	5	6
GS.29	Supp _n	15	17	18			
	k.k'(p)	2.4(-C)	1.2(-B)	3.4(-A)	-	-	-
	PF _n	2/5	1/5	2/5			
	Sub _n	37	45	46	48	51	54
	k.k'(p)	4.4(D)	3.4(D)	3.3(E)	1.3(E)	2.3(D)	1.4(E)
GS.134	Supp _n	106	114	115	117	120	123
	k.k'(p)	2.2(-C)	2.4(-B)	4.4(-A)	3.4(-B)	1.4(-C)	2.3(-C)
	PF _n	1/10	2/10	1/10	2/10	2/10	2/10
	Sub _n	144	146	147			
	k.k'(p)	1.2(D)	1.3(D)	2.4(D)	-	-	-
	PF _n	2/5	1/5	2/5			

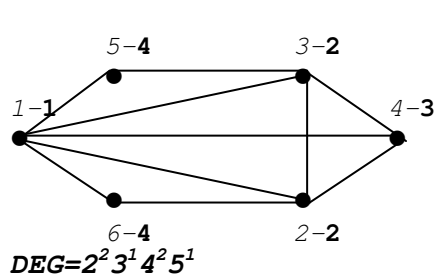
Graph-structures GS.30 (6.10.12) and GS.135 (6.5.12) (by Graph Atlas G180 and G73).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	9	1 ² 2 ²	0.266	1 ³ 2 ⁶	3.107	0.205	2	360

GS.30, its binary signs and semiotic model SM:

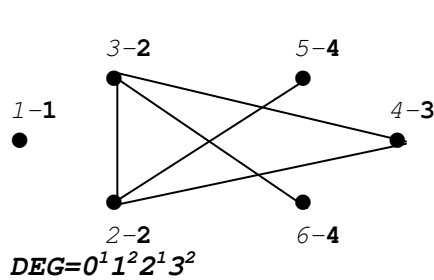
$$A: -2.4.5; B: -2.3.2; C: +2.3.3; D: +2.4.6; E: +2.5.8.$$



1	2	2	3	4	4				<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE		1234
0	E	E	D	C	C	1	00 212	1	0212
0	D	D	-A	C		2	10 121	2	1111
0	D	C	-A			3	10 121	2	1111
0	-A	-A				4	20 030	3	1200
0	-B					5	21 200	4	1100
0						6	21 200	4	1100

GS.135 (complement of GS.30), its binary signs and semiotic model SM:

$$A: -3.4.3; B: -2.3.2; C: -u.2.0; D: +1.2.1; E: +2.3.3.$$



1	2	2	3	4	4				<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE		1234
0	-C	-C	-C	-C	-C	1	00 500	1	0000
0	E	E	D	-B		2	01 112	2	0111
0	E	-B	D			3	01 112	2	0111
0	-B	-B				4	02 102	3	0200
0	-A					5	12 110	4	0100
0						6	12 110	4	0100

Correspondence of vertex positions (orbits):

GS.30	1	2	3	4
GS.135	1	4	3	2

Distinguishing invariants and measures:

GS	E	N ^f	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.30	10	6	3	5	4	3	2	1 ² 2 ⁴	0.202	1.000	0	2.504	hp
GS.135	5	3	6	5	3	3	3	1 ¹ 2 ²	0.345	0.600	0.400	2.171	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj _n	1	2	3	4	5	6
GS.30	Supp _n	16	17	18			
	$k.k'(p)$	2.4 (-A)	4.4 (-B)	3.4 (-A)	-	-	-
	PF _n	2/5	1/5	2/5			
	Sub _n	37	47	49	50	53	54
	$k.k'(p)$	1.3 (D)	2.2 (D)	2.3 (D)	2.4 (C)	1.4 (C)	1.2 (E)
GS.135	Supp _n	106	116	118	119	122	123
	$k.k'(p)$	1.3 (-C)	4.4 (-A)	3.4 (-B)	2.4 (-B)	1.2 (-C)	1.4 (-C)
	PF _n	1/10	1/10	2/10	2/10	2/10	2/10
	Sub _n	145	146	147			
	$k.k'(p)$	2.4 (D)	2.2 (E)	2.3 (E)	-	-	-
	PF _n	2/5	1/5	2/5			

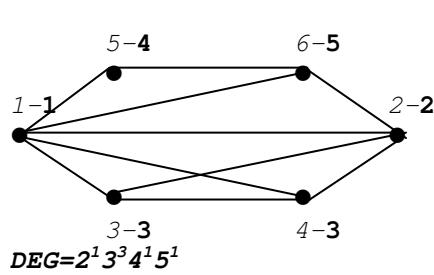
Graph-structures *GS.31* (6.10.13) and *GS.136* (6.5.13) (by Graph Atlas G183 and G75).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	360

GS.31, its binary signs and semiotic model SM:

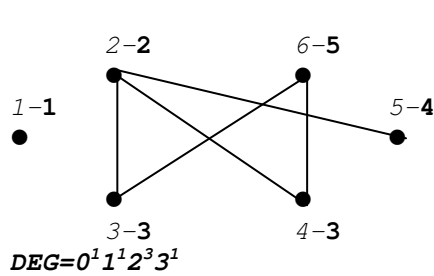
A:-2.4.5; B:-2.3.2; C:+2.3.3; D:+2.4.5; E:+2.4.6; F:+2.5.8.



1	2	3	3	4	5					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEF			12345
0	F	E	E	C	D	1	001121	1	01211	
0	E	E	-A	C		2	011210	2	10201	
0	E	-B	-A			3	110030	3	11100	
0	-B	-A				4	110030	3	11100	
0	C					5	122000	4	10001	
0						6	202100	5	11010	

GS.136 (complement of *GS.31*), its binary signs and semiotic model SM:

A:-3.5.5; B:-2.4.4; C:-2.3.2; D:-u.2.0; E:+1.2.1; F:+3.4.4.



1	2	3	3	4	5					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEF			12345
0	-D	-D	-D	-D	-D	1	000500	1	00000	
0	F	F	E	-B		2	010112	2	00210	
0	-B	-C	F			3	011102	3	01001	
0	-C	F				4	011102	3	01001	
0	-A					5	102110	4	01000	
0						6	110102	5	00200	

Correspondence of vertex positions (orbits):

<i>GS.31</i>	1	2	3	4	5
<i>GS.136</i>	1	4	3	2	5

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.31</i>	10	8	3	6	4	3	2	1 ⁶ 2 ²	0.120	1.000	0	2.527	hp
<i>GS.136</i>	5	3	8	6	2	4	3	1 ¹ 2 ²	0.345	0	0.200	2.246	bp

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5	6	7	8
<i>GS.31</i>	<i>Supp_n</i>	10	17	18					
	<i>k.k'</i>	2.4	3.4	3.5	-	-	-	-	-
	<i>(p)</i>	(-A)	(-B)	(-A)					
	<i>PF_n</i>	1/5	2/5	2/5					
	<i>Sub_n</i>	38	42	43	45	47	48	49	50
	<i>k.k' (p)</i>	2.5 (C)	1.5 (D)	1.4 (C)	1.3 (E)	2.3 (E)	1.2 (F)	3.3 (E)	4.5 (C)
<i>GS.136</i>	<i>Supp_n</i>	107	111	112	114	116	117	118	119
	<i>k.k'</i>	4.5	1.5	1.2	1.3	3.4	1.4	3.3	2.5
	<i>(p)</i>	(-A)	(-D)	(-D)	(-D)	(-C)	(-D)	(-B)	(-B)
	<i>PF_n</i>	1/10	1/10	1/10	2/10	2/10	1/10	1/10	1/10
	<i>Sub_n</i>	139	146	147					
	<i>k.k' (p)</i>	2.4 (E)	3.5 (F)	2.3 (F)	-	-	-	-	-
	<i>PF_n</i>	1/5	2/5	2/5					

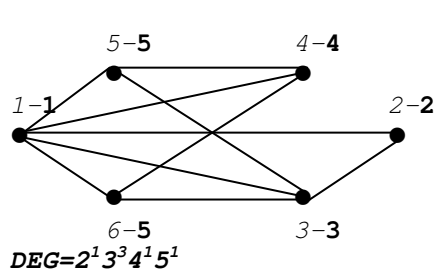
Graph-structures GS.32 (6.10.14) and GS.137 (6.5.14) (by Graph Atlas G182 and G74).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	360

GS.32, its binary signs and semiotic model SM:

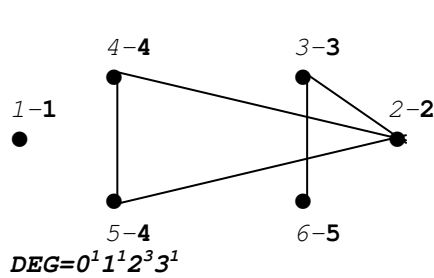
A:-2.5.8; B:-2.4.5; C:-2.3.2; D:+2.3.3; E:+2.4.5; F:+2.5.7.



1	2	3	4	5	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEF		12345
0	D	F	E	E	E	1	000131	1	01112
0	D	-C	-B	-B		2	021200	2	10100
0	-A	D	D			3	100301	3	11002
0	D	D				4	101210	4	10002
0	-A					5	110210	5	10110
0						6	110210	5	10110

GS.137 (complement of GS.32), its binary signs and semiotic model SM:

A:-3.4.3; B:-2.3.2; C:-u.2.0; D:+1.2.1; E:+2.3.3.



1	2	3	4	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDE		12345
0	-C	-C	-C	-C	-C	1	00500	1	00000
0	D	E	E	-B		2	01112	2	00120
0	-B	-B	D			3	02120	3	01001
0	E	-A				4	11102	4	01010
0	-A					5	11102	4	01010
0						6	21110	5	00100

Correspondence of vertex positions (orbits):

GS.32	1	2	3	4	5
GS.137	1	2	5	3	4

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.32	10	7	4	6	3	3	2	1 ⁴ 2 ³	0.181	1.000	0	2.528	hpu
GS.137	5	4	7	5	3	3	3	1 ³ 2 ¹	0.172	0.600	0.400	2.246	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5	6	7
GS.32	<i>Supp_n</i>	13	16	17	18			
	<i>k.k'</i>	2.4	3.4	2.5	5.5	-	-	-
	(<i>p</i>)	(-C)	(-A)	(-B)	(-A)			
	<i>PF_n</i>	1/5	1/5	2/5	1/5			
	<i>Sub_n</i>	40	44	47	49	51	52	54
	<i>k.k' (p)</i>	2.3 (D)	1.4 (E)	3.5 (D)	4.5 (D)	1.2 (D)	1.3 (F)	1.5 (E)
GS.137	<i>Supp_n</i>	109	113	116	118	120	121	123
	<i>k.k'</i>	2.5	1.3	4.5	3.4	1.2	1.5	1.4
	(<i>p</i>)	(-B)	(-C)	(-A)	(-B)	(-C)	(-C)	(-C)
	<i>PF_n</i>	1/10	1/10	2/10	2/10	1/10	1/10	2/10
	<i>Sub_n</i>	142	145	146	147			
	<i>k.k' (p)</i>	2.3 (D)	3.5 (D)	2.4 (E)	4.4 (E)	-	-	-
<i>PF_n</i>	1/5	1/5	2/5	1/5				

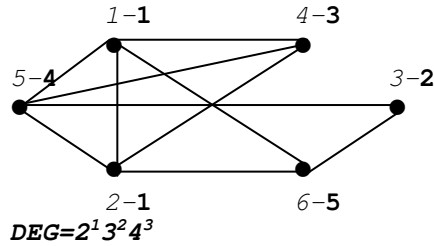
Graph-structures GS.33 (6.10.15) and GS.138 (6.5.15) (by Graph Atlas G185 and G81).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	360

GS.33, its binary signs and semiotic model SM:

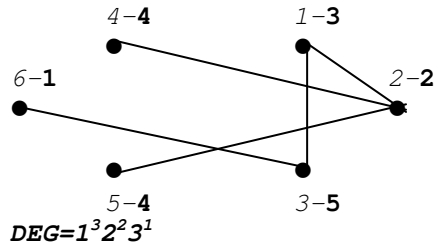
A: -2.5.7; B: -2.4.5; C: -2.4.4; D: -2.3.2;
E: +2.3.3; F: +2.4.6; G: +2.5.7; H: +3.5.7.



<i>k</i>	1	2	3	4	5	6	<i>i</i>	ABCDEFGH	<i>k</i>	12345
1	0	G	-C	F	F	E	1	00101210	1	10111
2	0	-C	F	F	E	2	00101210	1	10111	
3	0	-D	H	H	3	00210002	2	00011		
4	0	F	-B	4	01010300	3	20010			
5	0	-A	5	10000301	4	21100				
6	0	6	11002001	5	21000					

GS.138 (complement of GS.33), its binary signs and semiotic model SM:

A: -4.5.4; B: -3.4.3; C: -2.3.2; D: +1.2.1.



<i>k</i>	1	2	3	4	5	6	<i>i</i>	ABCD	<i>k</i>	12345
1	0	D	D	-C	-C	-C	1	0032	1	01100
2	0	-C	D	D	-B	2	0113	2	10020	
3	0	-B	-B	D	3	0212	3	10001		
4	0	-C	-A	4	1121	4	01000			
5	0	-A	5	1121	4	01000				
6	0	6	2111	5	00100					

Correspondence of vertex positions (orbits):

GS.33	1	2	3	4	5
GS.138	4	2	3	1	5

Distinguishing invariants and measures:

GS	E	N ^t	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.33	10	7	4	8	4	4	2	1 ⁴ 2 ³	0.181	0.800	0	2.546	hp
GS.138	5	4	7	4	2	0	4	1 ³ 2 ¹	0.172	0	1.000	2.446	bptu

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4	5	6	7
GS.33	Supp _n	12	14	17	18			
	k.k'	3.5	2.3	1.2	4.5	-	-	-
	(p)	(-B)	(-D)	(-C)	(-A)			
	PF _n	1/5	1/5	2/5	1/5			
	Sub _n	42	43	44	46	52	53	54
	k.k' (p)	1.5 (E)	2.4 (H)	3.4 (F)	1.4 (F)	1.1 (G)	2.5 (H)	1.3 (F)
GS.138	Supp _n	111	112	113	115	121	122	123
	k.k'	4.5	1.2	2.3	1.4	4.4	2.5	3.4
	(p)	(-A)	(-C)	(-C)	(-C)	(-C)	(-B)	(-B)
	PF _n	2/10	1/10	1/10	2/10	1/10	1/10	2/10
	Sub _n	141	143	146	147			
	k.k' (p)	3.5 (D)	1.3 (D)	2.4 (D)	1.2 (D)	-	-	-

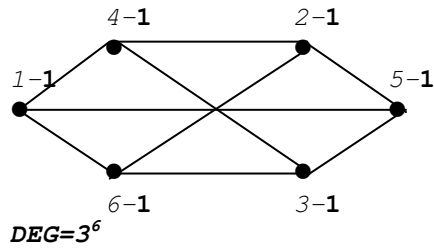
Graph-structures *GS.34* (6.9.1) and *GS.103* (6.6.1) (by Graph Atlas G175 and G106).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Bisymmetry	1	2	6 ¹	1.000	6 ¹ 9 ¹	0.971	0.751	72	6

GS.34, its binary signs and semiotic model SM:

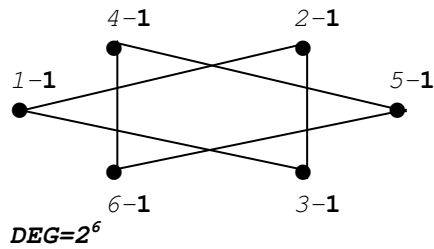
$$A: -2.5.6; \quad B: +3.6.9.$$



1	1	1	1	1	1			<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>AB</i>	1
0	-A	-A	B	B	B	1	23	1 3
	0	-A	B	B	B	2	23	1 3
		0	B	B	B	3	23	1 3
			0	-A	-A	4	23	1 3
				0	-A	5	23	1 3
					0	6	23	1 3

GS.103 (complement of *GS.34*), its binary signs and semiotic model SM:

$$A: -u.2.0; \quad B: +2.3.3.$$



1	1	1	1	1	1			<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>AB</i>	1
0	B	B	-A	-A	-A	1	32	1 1
	0	B	-A	-A	-A	2	32	1 1
		0	-A	-A	-A	3	32	1 1
			0	B	B	4	32	1 1
				0	B	5	32	1 1
					0	6	32	1 1

Correspondence of vertex positions (orbits):

<i>GS.34</i>	1
<i>GS.103</i>	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.34</i>	9	1	1	2	2	4	2	9 ¹	1.000	0	0	2.585	bhu
<i>GS.103</i>	6	1	1	2	3	3	1	6 ¹	1.000	1.000	0	2.585	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1
	<i>Supp_n</i>	22
	<i>k.k'(p)</i>	1.1 (-A)
<i>GS.34</i>	<i>PF_n</i>	6/6
	<i>Sub_n</i>	57
	<i>k.k'(p)</i>	1.1 (B)
	<i>PF_n</i>	9/9
	<i>Supp_n</i>	81
	<i>k.k'(p)</i>	1.1 (-A)
<i>GS.103</i>	<i>PF_n</i>	9/9
	<i>Sub_n</i>	127
	<i>k.k'(p)</i>	1.1 (B)
	<i>PF_n</i>	6/6

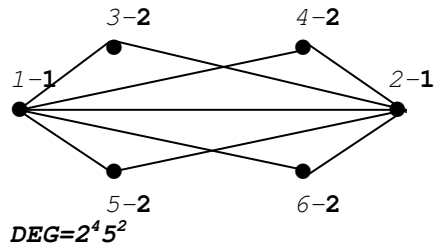
Graph-structures *GS.35* (6.9.2) and *GS.104* (6.6.2) (by Graph Atlas G161 and G86).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	3	2 ¹ 4 ¹	0.645	1 ¹ 6 ¹ 8 ¹	1.273	0.674	48	9

GS.35, its binary signs and semiotic model SM:

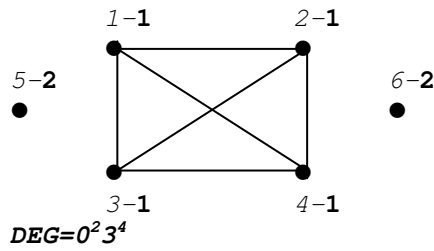
$$A: -2.4.5; \quad B: +2.3.3; \quad C: +2.6.9.$$



1	1	2	2	2	2		<i>i</i>	<i>ABC</i>	<i>k</i>	
1	2	3	4	5	6		1	041	1	14
0	C	B	B	B	B		2	041	1	14
	0	-A	-A	-A			3	320	2	20
		0	-A	-A			4	320	2	20
			0	-A			5	320	2	20
				0			6	320	2	20

GS.104 (complement of *GS.35*), its binary signs and semiotic model SM:

$$A: -1.2.0; \quad B: +2.4.6.$$



1	1	1	1	2	2		<i>i</i>	<i>AB</i>	<i>k</i>	
1	2	3	4	5	6		1	23	1	30
0	B	B	B	-A	-A		2	23	1	30
	0	B	B	-A	-A		3	23	1	30
		0	B	-A	-A		4	23	1	30
			0	-A	-A		5	50	2	00
				0			6	50	2	00

Correspondence of vertex positions (orbits):

<i>GS.35</i>	1	2
<i>GS.104</i>	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.35</i>	9	2	1	3	3	3	2	1 ¹ 8 ¹	0.841	1.000	0	2.436	pu
<i>GS.104</i>	6	1	2	2	4	3	1	6 ¹	1.000	1.000	0	2.000	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2
<i>GS.35</i>	<i>Supp_n</i>	24	
	<i>k.k'(p)</i>	2.2 (-A)	-
	<i>PF_n</i>	6/6	
	<i>Sub_n</i>	55	63
	<i>k.k'(p)</i>	1.1 (C)	1.2 (B)
<i>GS.104</i>	<i>PF_n</i>	1/9	8/9
	<i>Supp_n</i>	79	87
	<i>k.k'(p)</i>	2.2 (-A)	1.2 (-A)
	<i>PF_n</i>	1/9	8/9
	<i>Sub_n</i>	129	
<i>GS.104</i>	<i>k.k'(p)</i>	1.1 (B)	-
	<i>PF_n</i>	6/6	

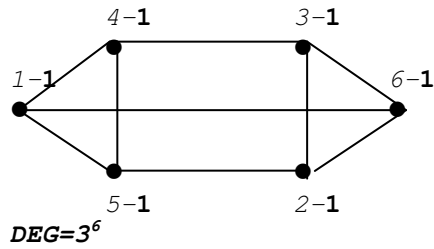
Graph-structures *GS.36* (6.9.3) and *GS.105* (6.6.3) (by Graph Atlas G174 and G105).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
(-)/(+)symmetry	1	3	6 ¹	1.000	3 ¹ 6 ²	1.522	0.610	12	36

GS.36, its binary signs and semiotic model SM:

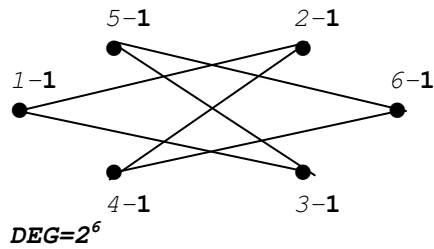
$$A: -2.4.4; B: +2.3.3; C: +3.6.9.$$



						<i>i</i>	<i>ABC</i>	<i>k</i>	
	1	1	1	1	1				
	1	2	3	4	5	6		<i>i</i>	<i>ABC</i>
	0	-A	-A	B	B	C		1	221
		0	B	-A	C	B		2	221
			0	C	-A	B		3	221
				0	B	-A		4	221
					0	-A		5	221
						0		6	221

GS.105 (complement of *GS.36*), its binary signs and semiotic model SM:

$$A: -3.6.6; B: -2.3.2; C: +5.6.6.$$



						<i>i</i>	<i>ABC</i>	<i>k</i>	
	1	1	1	1	1				
	1	2	3	4	5	6		<i>i</i>	<i>ABC</i>
	0	C	C	-B	-B	-A		1	122
		0	-B	C	-A	-B		2	122
			0	-A	C	-B		3	122
				0	-B	C		4	122
					0	C		5	122
						0		6	122

Correspondence of vertex positions (orbits):

<i>GS.36</i>	1
<i>GS.105</i>	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^t</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.36</i>	9	2	1	3	3	4	2	3 ¹ 6 ¹	0.710	0.667	0	2.585	<i>hp</i>
<i>GS.105</i>	6	1	2	3	2	6	3	6 ¹	1.000	0	0	2.585	<i>behp</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2
<i>GS.36</i>	<i>Supp_n</i>	28	
	<i>k.k'(p)</i>	1.1 (-A)	-
	<i>PF_n</i>	6/6	
	<i>Sub_n</i>	59	70
<i>GS.105</i>	<i>k.k'(p)</i>	1.1 (C)	1.1 (B)
	<i>PF_n</i>	3/9	6/9
	<i>Supp_n</i>	83	94
	<i>k.k'(p)</i>	1.1 (-A)	1.1 (-B)
<i>GS.105</i>	<i>PF_n</i>	3/9	6/9
	<i>Sub_n</i>	133	
	<i>k.k'(p)</i>	1.1 (C)	-
	<i>PF_n</i>	6/6	

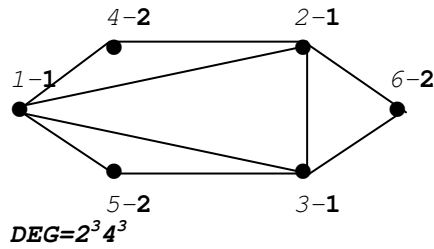
Graph-structures *GS.37* (6.9.4) and *GS.106* (6.6.4) (by Graph Atlas G163 and G94).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	4	3 ²	0.613	3 ³ 6 ¹	1.640	0.508	6	72

GS.37, its binary signs and semiotic model SM:

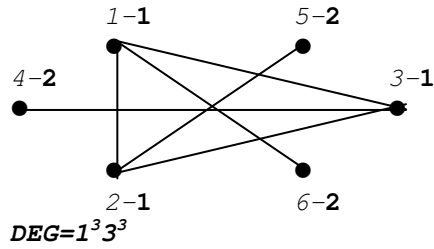
$$A: -2.4.5; B: -2.3.2; C: +2.3.3; D: +2.4.5.$$



1	1	1	2	2	2				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>		12
0	<i>D</i>	<i>D</i>	<i>C</i>	<i>C</i>	- <i>A</i>	1	1022	1	22
0	<i>D</i>	<i>C</i>	- <i>A</i>	<i>C</i>		2	1022	1	22
0	- <i>A</i>	<i>C</i>	<i>C</i>			3	1022	1	22
0	- <i>B</i>	- <i>B</i>				4	1220	2	20
0	- <i>B</i>					5	1220	2	20
0						6	1220	2	20

GS.106 (complement of *GS.37*), its binary signs and semiotic model SM:

$$A: -3.4.3; B: -2.3.2; C: +1.2.1; D: +2.3.3.$$



1	1	1	2	2	2				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>		12
0	<i>D</i>	<i>D</i>	- <i>B</i>	- <i>B</i>	<i>C</i>	1	0212	1	21
0	<i>D</i>	- <i>B</i>	<i>C</i>	- <i>B</i>		2	0212	1	21
0	<i>C</i>	- <i>B</i>	- <i>B</i>			3	0212	1	21
0	- <i>A</i>	- <i>A</i>				4	2210	2	10
0	- <i>A</i>					5	2210	2	10
0						6	2210	2	10

Correspondence of vertex positions (orbits):

<i>GS.37</i>	1	2
<i>GS.106</i>	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^t</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.37</i>	9	2	2	4	3	3	2	3 ¹ 6 ¹	0.710	1.000	0	2.505	ehpu
<i>GS.106</i>	6	2	2	4	3	3	3	3 ²	0.614	0.500	0.500	2.386	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2
<i>GS.37</i>	<i>Supp_n</i>	29	30
	$k.k'(p)$	2.2 (- <i>B</i>)	1.2 (- <i>A</i>)
	<i>PF_n</i>	3/6	3/6
	<i>Sub_n</i>	72	76
	$k.k'(p)$	1.1 (<i>D</i>)	1.2 (<i>C</i>)
<i>GS.106</i>	<i>Supp_n</i>	96	100
	$k.k'(p)$	2.2 (- <i>A</i>)	1.2 (- <i>B</i>)
	<i>PF_n</i>	3/9	6/9
	<i>Sub_n</i>	134	135
	$k.k'(p)$	1.1 (<i>D</i>)	1.2 (<i>C</i>)
	<i>PF_n</i>	3/6	3/6

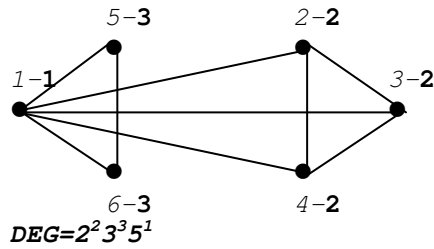
Graph-structures GS.38 (6.9.5) and GS.107 (6.6.5) (by Graph Atlas G165 and G91).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	1 ¹ 2 ¹ 3 ¹	0.478	1 ¹ 2 ¹ 3 ² 6 ¹	2.106	0.461	12	36

GS.38, its binary signs and semiotic model SM:

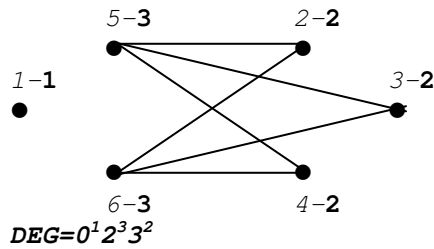
$$A: -2.3.2; B: +2.3.3; C: +2.4.6.$$



1	2	2	2	3	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	ABC	123
0	C	C	C	B	B	1	023	1 032
0	C	C	-A	-A		2	203	2 120
0	C	C	-A	-A		3	203	2 120
0	-A	-A				4	203	2 120
0	B					5	320	3 101
0	B					6	320	3 101

GS.107 (complement of GS.38), its binary signs and semiotic model SM:

$$A: -2.5.6; B: -2.4.4; C: -1.2.0; D: +3.5.6.$$



1	2	2	2	3	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	ABCD	123
0	-C	-C	-C	-C	-C	1	0050	1 000
0	-B	-B	D	D		2	0212	2 002
0	-B	-B	D	D		3	0212	2 002
0	D	D				4	0212	2 002
0	-A					5	1013	3 030
0	-A					6	1013	3 030

Correspondence of vertex positions (orbits):

GS.38	1	2	3
GS.107	1	2	3

Distinguishing invariants and measures:

GS	E	N ⁺	N ⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.38	9	4	1	3	4	3	2	1 ¹ 2 ¹ 3 ²	0.406	1.000	0	2.510	<i>p</i>
GS.107	6	1	4	4	2	4	2	6 ¹	1.000	0	0	2.293	<i>bp</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj _n	1	2	3	4
GS.38	Supp _n	31			
	<i>k.k'</i> (<i>p</i>)	2.3 (-A)	-	-	-
	PF _n	6/6			
	Sub _n	56	64	65	66
	<i>k.k'</i> (<i>p</i>)	3.3 (B)	1.3 (B)	2.2 (C)	1.2 (C)
GS.107	Supp _n	80	88	89	90
	<i>k.k'</i> (<i>p</i>)	3.3 (-A)	1.3 (-C)	2.2 (-B)	1.2 (-C)
	PF _n	1/9	2/9	3/9	3/9
	Sub _n	136			
	<i>k.k'</i> (<i>p</i>)	2.3 (D)	-	-	-
	PF _n	6/6			

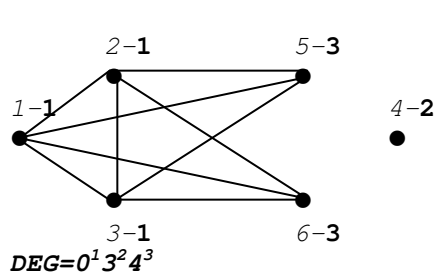
Graph-structures *GS.39* (6.9.6) and *GS.108* (6.6.6) (by Graph Atlas G155 and G92).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	1 ¹ 2 ¹ 3 ¹	0.478	1 ¹ 2 ¹ 3 ² 6 ¹	2.106	0.461	12	36

GS.39, its binary signs and semiotic model SM:

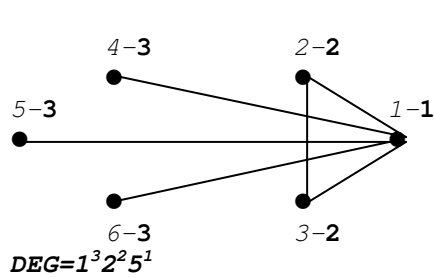
A: -2.5.9; B: -1.2.0; C: +2.4.6; D: +2.5.9.



1	1	1	2	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>		
0	D	D	-B	C	C	1	0122	1	202
0	D	-B	C	C		2	0122	1	202
0	-B	C	C			3	0122	1	202
0	-B	-B				4	0500	2	000
0	-A					5	1130	3	300
0						6	1130	3	300

GS.108 (complement of *GS.39*), its binary signs and semiotic model SM:

A: -2.3.2; B: +1.2.1; C: +2.3.3.



1	2	2	3	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>		
0	C	C	B	B	B	1	032	1	023
0	C	-A	-A	-A		2	302	2	110
0	-A	-A	-A			3	302	2	110
0	-A	-A				4	410	3	100
0	-A					5	410	3	100
0						6	410	3	100

Correspondence of vertex positions (orbits):

<i>GS.39</i>	1	2	3
<i>GS.108</i>	3	1	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.39</i>	9	2	3	4	4	3	2	3 ¹ 6 ¹	0.710	1.000	0	2.308	<i>p</i>
<i>GS.108</i>	6	3	2	3	3	3	2	1 ¹ 2 ¹ 3 ¹	0.436	0.500	0.500	2.284	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3
<i>GS.39</i>	<i>Supp_n</i>	19	25	27
	<i>k.k' (p)</i>	3.3 (-A)	2.3 (-B)	1.2 (-B)
	<i>PF_n</i>	1/6	2/6	3/6
	<i>Sub_n</i>	58	69	
	<i>k.k' (p)</i>	1.1 (D)	1.3 (C)	-
<i>GS.108</i>	<i>Supp_n</i>	82	93	
	<i>k.k' (p)</i>	3.3 (-A)	2.3 (-A)	-
	<i>PF_n</i>	3/9	6/9	
	<i>Sub_n</i>	124	130	132
	<i>k.k' (p)</i>	2.2 (C)	1.2 (C)	1.3 (B)
	<i>PF_n</i>	1/6	2/6	3/6

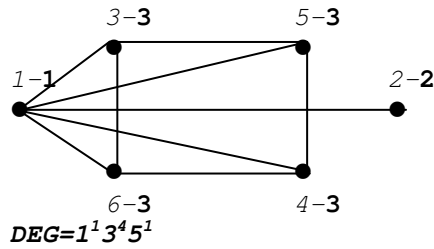
Graph-structures *GS.40* (6.9.7) and *GS.109* (6.6.7) (by Graph Atlas G158 and G89).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	1 ² 4 ¹	0.516	1 ¹ 2 ¹ 4 ³	2.174	0.444	8	54

GS.40, its binary signs and semiotic model SM:

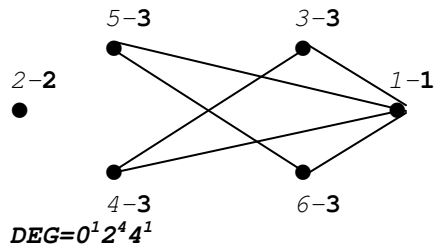
A: -2.5.8; B: -2.3.2; C: +1.2.1; D: +2.3.3; E: +2.4.5.



1	2	3	3	3	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	ABCDE	123
0	C	E	E	E	E	1	00104	1 014
0	-B	-B	-B	-B		2	04100	2 100
0	-A	D	D			3	11021	3 102
0		D	D			4	11021	3 102
0	-A					5	11021	3 102
0						6	11021	3 102

GS.109 (complement of *GS.40*), its binary signs and semiotic model SM:

A: -2.3.2; B: -1.2.0; C: +2.3.3.



1	2	3	3	3	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	ABC	123
0	-B	C	C	C	C	1	014	1 004
0	-B	-B	-B	-B		2	050	2 000
0	C	-A	-A			3	212	3 101
0	-A	-A				4	212	3 101
0		C				5	212	3 101
0						6	212	3 101

Correspondence of vertex positions (orbits):

<i>GS.40</i>	1	2	3
<i>GS.109</i>	2	1	3

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^t</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.40</i>	9	3	2	5	3	3	2	1 ¹ 4 ²	0.561	0.889	0.111	2.436	<i>p</i>
<i>GS.109</i>	6	2	3	3	3	3	2	2 ¹ 4 ¹	0.647	1.000	0	2.252	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3
<i>GS.40</i>	<i>Supp_n</i>	27	32	
	<i>k.k'(p)</i>	3.3 (-A)	2.3 (-B)	-
	<i>PF_n</i>	2/6	4/6	
	<i>Sub_n</i>	58	71	75
	<i>k.k'(p)</i>	1.2 (C)	3.3 (D)	1.3 (E)
<i>GS.109</i>	<i>PF_n</i>	1/9	4/9	4/9
	<i>Supp_n</i>	82	95	99
	<i>k.k'(p)</i>	1.2 (-B)	3.3 (-A)	2.3 (-B)
	<i>PF_n</i>	3/9	4/9	4/9
	<i>Sub_n</i>	132	137	
<i>GS.109</i>	<i>k.k'(p)</i>	3.3 (C)	1.3 (C)	-
	<i>PF_n</i>	2/6	4/6	

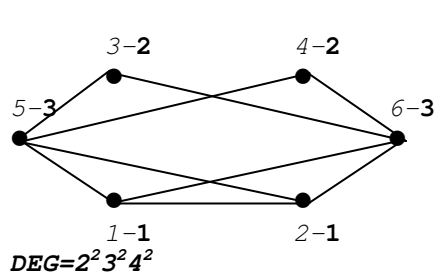
Graph-structures *GS.41* (6.9.8) and *GS.110* (6.6.8) (by Graph Atlas G170 and G101).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	6	2 ³	0.523	1 ³ 4 ³	2.307	0.410	8	54

GS.41, its binary signs and semiotic model SM:

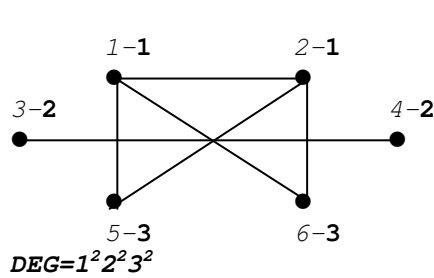
A: -2.6.9; B: -2.4.4; C: +2.3.3; D: +2.4.5; E: +3.6.9.



1	1	2	2	3	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	ABCDE	123
0	D	-B	-B	C	C	1	02210	1 102
0	-B	-B	C	C	2	02210	1 102	
0	-B	E	E	3	03002	2	002	
0	E	E	4	03002	2	002		
0	-A	5	10202	3	220			
0	6	10202	3	220				

GS.110 (complement of *GS.41*), its binary signs and semiotic model SM:

A: -2.4.4; B: -u.2.0; C: +1.2.1; D: +2.3.3; E: +2.4.5.



1	1	2	2	3	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	ABCDE	123
0	E	-B	-B	D	D	1	02021	1 102
0	-B	-B	D	D	2	02021	1 102	
0	C	-B	-B	3	04100	2	010	
0	-B	-B	4	04100	2	010		
0	-A	5	12020	3	200			
0	6	12020	3	200				

Correspondence of vertex positions (orbits):

<i>GS.41</i>	1	2	3
<i>GS.110</i>	3	1	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.41</i>	9	3	3	5	3	4	2	1 ¹ 4 ²	0.561	0.556	0	2.531	<i>p</i>
<i>GS.110</i>	6	3	3	5	3	3	2	1 ² 4 ¹	0.516	0.667	0.167	2.459	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3
<i>GS.41</i>	<i>Supp_n</i>	21	24	26
	<i>k.k'(p)</i>	2.2 (-B)	3.3 (-A)	1.2 (-B)
	<i>PF_n</i>	1/6	1/6	4/6
	<i>Sub_n</i>	55	73	74
	<i>k.k'(p)</i>	1.1 (D)	1.3 (C)	2.3 (E)
<i>GS.110</i>	<i>Supp_n</i>	79	97	98
	<i>k.k'(p)</i>	3.3 (-A)	2.3 (-B)	1.2 (-B)
	<i>PF_n</i>	1/9	4/9	4/9
	<i>Sub_n</i>	126	129	131
	<i>k.k'(p)</i>	1.1 (E)	2.2 (C)	1.3 (D)
	<i>PF_n</i>	1/6	1/6	4/6

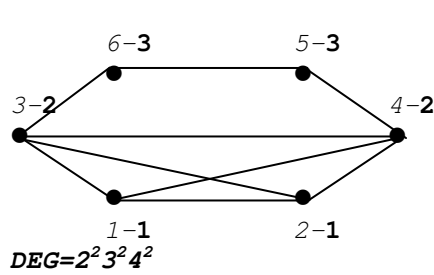
Graph-structures *GS.42* (6.9.9) and *GS.111* (6.6.9) (by Graph Atlas G169 and G99).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	7	2³	0.523	1³2²4²	2.576	0.340	4	108

GS.42, its binary signs and semiotic model SM:

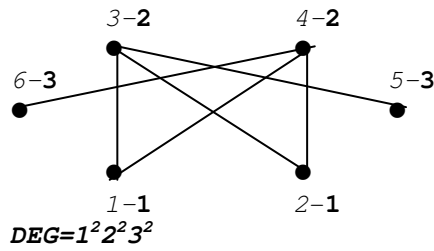
$$A:-2.4.4; B:-2.3.2; C:+2.4.6; D:+3.4.4.$$



<i>i</i>	<i>ABCD</i>	<i>k</i>
1	0230	123
2	0230	102
3	1031	211
4	1031	211
5	1202	3011
6	1202	3011

GS.111 (complement of *GS.42*), its binary signs and semiotic model SM:

$$A:-4.6.6; B:-3.5.5; C:-2.4.4; D:-2.3.2; E:+1.2.1; F:+3.4.4.$$



<i>i</i>	<i>ABCDEF</i>	<i>k</i>
1	001202	1020
2	001202	1020
3	011012	201
4	011012	201
5	110210	3200
6	110210	3200

Correspondence of vertex positions (orbits):

<i>GS.42</i>	1	2	3
<i>GS.111</i>	1	3	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.42</i>	9	5	2	4	4	4	2	1³2¹4¹	0.350	0.667	0	2.531	hp
<i>GS.111</i>	6	2	5	6	2	4	4	2¹4¹	0.645	0	0.333	2.459	bpu

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5
<i>GS.42</i>	<i>Supp_n</i>	31	33			
	<i>k.k'(p)</i>	2.3 (-A)	1.3 (-B)	-	-	-
	<i>PF_n</i>	2/6	4/6			
	<i>Sub_n</i>	60	61	62	64	78
	<i>k.k'(p)</i>	1.1 (C)	2.2 (C)	3.3 (D)	2.3 (D)	1.2 (C)
<i>GS.111</i>	<i>Supp_n</i>	84	85	86	88	102
	<i>k.k'(p)</i>	1.1 (-C)	3.3 (-A)	2.2 (-C)	2.3 (-B)	1.3 (-D)
	<i>PF_n</i>	1/9	1/9	1/9	2/9	4/9
	<i>Sub_n</i>	136	138			
	<i>k.k'(p)</i>	2.3 (E)	1.2 (F)	-	-	-

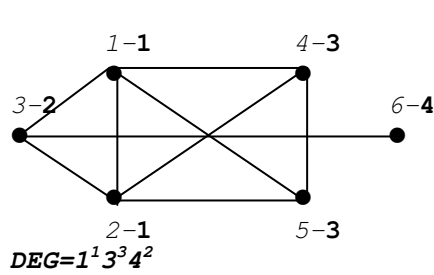
Graph-structures GS.43 (6.9.10) and GS.112 (6.6.10) (by Graph Atlas G160 and G96).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	108

GS.43, its binary signs and semiotic model SM:

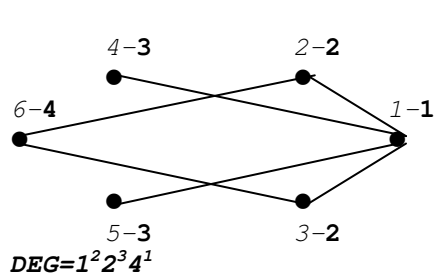
A: -3.5.6; B: -2.4.5; C: -2.3.2; D: +1.2.1; E: +2.3.3; F: +2.4.6; G: +2.5.8.



1	2	3	4					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEFG	1234
0	G	E	F	F	-C	1	0010121	1 1120
0	E	F	F	-C	2	0010121	1 1120	
0	-B	-B	D	3	0201200	2	2001	
0	F	-A	4	1100030	3	2010		
0	-A	5	1100030	3	2010			
0	6	2021000	4	0100				

GS.112 (complement of GS.43), its binary signs and semiotic model SM:

A: -3.5.5; B: -2.4.4; C: -2.3.2; D: +1.2.1; E: +3.4.4.



1	2	3	4					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE	1234
0	E	E	D	D	-B	1	01022	1 0220
0	-B	-C	-C	E	2	01202	2 1001	
0	-C	-C	E	3	01202	2 1001		
0	-C	-A	4	10310	3 1000			
0	-A	5	10310	3 1000				
0	6	21002	4 0200					

Correspondence of vertex positions (orbits):

GS.43	1	2	3	4
GS.112	3	4	2	1

Distinguishing invariants and measures:

GS	E	N ⁺	N ⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.43	9	5	3	7	4	3	3	1 ³ 2 ¹ 4 ¹	0.351	0.889	0.111	2.485	<i>p</i>
GS.112	6	3	5	5	2	4	3	2 ³	0.387	0	0.333	2.418	<i>bpu</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj _n	1	2	3	4	5
GS.43	Supp _n	25	31	33		
	$k.k'(p)$	2.3 (-B)	1.4 (-C)	3.4 (-A)	-	-
	PF _n	2/6	2/6	2/6		
	Sub _n	64	67	68	69	77
	$k.k'(p)$	1.2 (E)	1.1 (G)	3.3 (F)	2.4 (D)	1.3 (F)
GS.112	Supp _n	88	91	92	93	102
	$k.k'(p)$	3.4 (-A)	3.3 (-C)	2.2 (-B)	1.4 (-B)	2.3 (-C)
	PF _n	2/9	1/9	1/9	2/9	4/9
	Sub _n	130	136	138		
	$k.k'(p)$	2.4 (E)	1.3 (D)	1.2 (E)	-	-
PF _n	2/6	2/6	2/6			

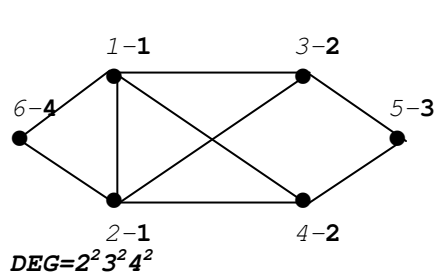
Graph-structures GS.44 (6.9.11) and GS.113 (6.6.11) (by Graph Atlas G168 and G100).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	108

GS.44, its binary signs and semiotic model SM:

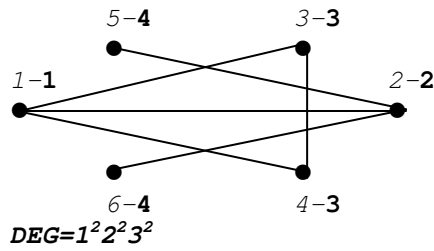
A: -3.6.9; B: -2.5.7; C: -2.4.5; D: -2.4.4; E: +2.3.3; F: +2.5.7; G: +3.5.7.



1	2	3	4	5	6	<i>i</i>	ABCDEFG	<i>k</i>
1	2	3	4	5	6	1	0001310	1 1201
0	F	E	E	-D	E	2	0001310	1 1201
0	E	E	-D	E		3	0110201	2 2010
0	-B	G	-C			4	0110201	2 2010
0	G	-C				5	1002002	3 0200
0	-A					6	1020200	4 2000

GS.113 (complement of **GS.44**), its binary signs and semiotic model SM:

A: -3.4.3; B: -2.3.2; C: +1.2.1; D: +2.3.3.



1	2	3	4	5	6	<i>i</i>	ABCD	<i>k</i>
1	2	3	4	5	6	1	0212	1 0120
0	C	D	D	-B	-B	2	0230	2 1002
0	-B	-B	C	C		3	2102	3 1010
0	D	-A	-A			4	2102	3 1010
0	-A	-A				5	2210	4 0100
0	-B					6	2210	4 0100

Correspondence of vertex positions (orbits):

GS.44	1	2	3	4
GS.113	4	3	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.44	9	4	4	7	3	4	3	1 ¹ 2 ² 4 ¹	0.421	0.778	0	2.558	hp
GS.113	6	4	4	4	3	3	3	1 ² 2 ²	0.258	0.500	0.500	2.459	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
GS.44	<i>Supp_n</i>	22	23	32	33
	<i>k.k' (p)</i>	3.4 (-A)	2.2 (-B)	1.3 (-D)	2.4 (-C)
	<i>PF_n</i>	1/6	1/6	2/6	2/6
	<i>Sub_n</i>	57	68	75	78
	<i>k.k' (p)</i>	1.1 (F)	2.3 (G)	1.4 (E)	1.2 (E)
GS.113	<i>Supp_n</i>	81	92	99	102
	<i>k.k' (p)</i>	4.4 (-B)	2.3 (-B)	1.4 (-B)	3.4 (-A)
	<i>PF_n</i>	1/9	2/9	2/9	4/9
	<i>Sub_n</i>	127	128	137	138
	<i>k.k' (p)</i>	1.2 (C)	3.3 (D)	2.4 (C)	1.3 (D)
	<i>PF_n</i>	1/6	1/6	2/6	2/6

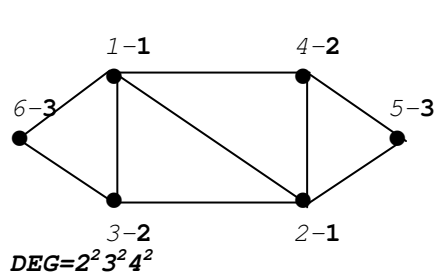
Graph-structures *GS.45* (6.9.12) and *GS.114* (6.6.12) (by Graph Atlas G167 and G98).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	9	2 ³	0.523	1 ³ 2 ⁶	3.107	0.236	2	216

GS.45, its binary signs and semiotic model SM:

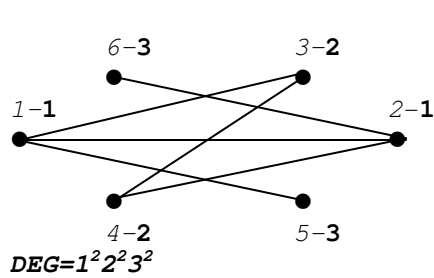
A: -3.6.9; B: -2.4.5; C: -2.3.2; D: +2.3.3; E: +2.4.5.



1	1	2	2	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE		123
0	E	E	D	-B	D	1	01022	1	121
0	D	E	D	-B		2	01022	1	121
0	-B	-C	D			3	01121	2	201
0	D	-C				4	01121	2	201
0	-A					5	11120	3	110
0						6	11120	3	110

GS.114 (complement of *GS.45*), its binary signs and semiotic model SM:

A: -3.5.5; B: -3.4.3; C: -2.4.4; D: -2.3.2; E: +1.2.1; F: +3.4.4.



1	1	2	2	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEF		123
0	E	F	-C	E	-D	1	001112	1	111
0	-C	F	-D	E		2	001112	1	111
0	F	-D	-A			3	101102	2	110
0	-A	-D				4	101102	2	110
0	-B					5	110210	3	100
0						6	110210	3	100

Correspondence of vertex positions (orbits):

<i>GS.45</i>	1	2	3
<i>GS.114</i>	3	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.45</i>	9	5	4	5	3	3	3	1 ¹ 2 ⁴	0.280	1.000	0	2.531	hpu
<i>GS.114</i>	6	4	5	6	2	4	3	1 ² 2 ²	0.258	0	0.333	2.459	bpu

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5
<i>GS.45</i>	<i>Supp_n</i>	23	28	29	31	
	<i>k.k'(p)</i>	2.2 (-B)	3.3 (-A)	2.3 (-C)	1.3 (-B)	-
	<i>PF_n</i>	1/6	1/6	2/6	2/6	
	<i>Sub_n</i>	59	66	76	77	78
	<i>k.k'(p)</i>	1.1 (E)	1.2 (D)	2.3 (D)	1.3 (D)	1.2 (E)
<i>GS.114</i>	<i>Supp_n</i>	83	90	100	101	102
	<i>k.k'(p)</i>	3.3 (-B)	2.3 (-A)	1.2 (-C)	1.3 (-D)	2.3 (-D)
	<i>PF_n</i>	1/9	2/9	2/9	2/9	2/9
	<i>Sub_n</i>	128	133	134	136	
	<i>k.k'(p)</i>	2.2 (F)	1.1 (E)	1.2 (F)	1.3 (E)	-
	<i>PF_n</i>	1/6	1/6	2/6	2/6	

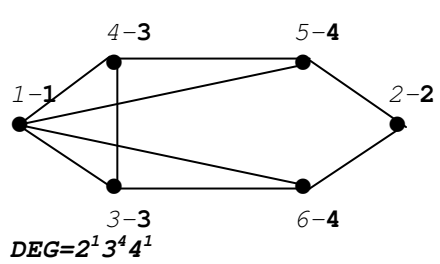
Graph-structures GS.46 (6.9.13) and GS.115 (6.6.13) (by Graph Atlas G171 and G104).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	9	1 ² 2 ²	0.266	1 ³ 2 ⁶	3.107	0.205	2	216

GS.46, its binary signs and semiotic model SM:

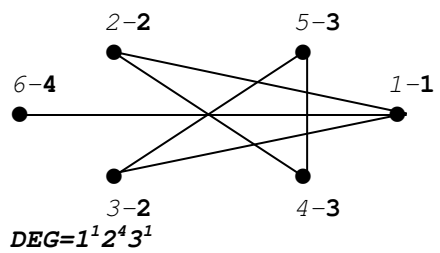
A: -2.4.5; B: -2.4.4; C: -2.3.2; D: +2.3.3; E: +2.4.5; F: +3.4.4.



1	2	3	3	4	4					<i>k</i>	
1	2	3	4	5	6	<i>i</i>	ABCDEF				1234
0	-B	E	E	D	D	1	010220	1	0022		
0	-C	-C	F	F		2	012002	2	0002		
0	D	-A	D			3	101210	3	1011		
0	D	-A				4	101210	3	1011		
0	-A					5	110201	4	1110		
0						6	110201	4	1110		

GS.115 (complement of GS.46), its binary signs and semiotic model SM:

A: -3.4.3; B: -2.3.2; C: +1.2.1; D: +4.5.5.



1	2	2	3	3	4					<i>k</i>	
1	2	3	4	5	6	<i>i</i>	ABCD				1234
0	D	D	-B	-B	C	1	0212	1	0201		
0	-B	D	-B	-B		2	0302	2	1010		
0	-B	D	-B			3	0302	2	1010		
0	D	-A				4	1202	3	0110		
0	-A					5	1202	3	0110		
0						6	2210	4	1000		

Correspondence of vertex positions (orbits):

GS.46	1	2	3	4
GS.115	4	1	2	3

Distinguishing invariants and measures:

GS	E	N ^f	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.46	9	5	4	6	3	4	2	1 ¹ 2 ⁴	0.280	0.778	0	2.558	hpu
GS.115	6	4	5	4	2	5	3	1 ² 2 ²	0.258	0	0.167	2.522	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj _n	1	2	3	4	5
GS.46	Supp _n	20	28	29	33	
	$k.k'(p)$	1.2 (-B)	2.3 (-C)	4.4 (-A)	3.4 (-A)	-
	PF _n	1/6	2/6	1/6	2/6	
	Sub _n	61	70	72	77	78
	$k.k'(p)$	1.4 (D)	1.3 (E)	3.3 (D)	2.4 (F)	3.4 (D)
GS.115	Supp _n	85	94	96	101	102
	$k.k'(p)$	3.4 (-A)	2.4 (-B)	2.2 (-B)	1.3 (-B)	2.3 (-B)
	PF _n	2/9	2/9	1/9	2/9	2/9
	Sub _n	125	133	134	138	
	$k.k'(p)$	1.4 (C)	1.2 (D)	3.3 (D)	2.3 (D)	-
	PF _n	1/6	2/6	1/6	2/6	

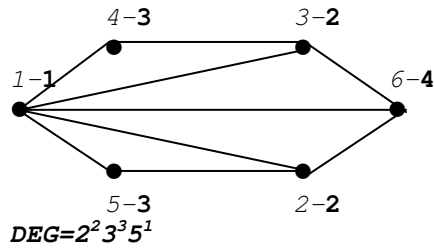
Graph-structures *GS.47* (6.9.14) and *GS.116* (6.6.14) (by Graph Atlas G164 and G90).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	9	1 ² 2 ²	0.266	1 ³ 2 ⁶	3.107	0.205	2	216

GS.47, its binary signs and semiotic model SM:

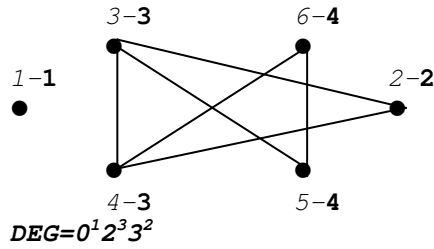
$$A: -2.4.5; B: -2.3.2; C: +2.3.3; D: +2.4.5.$$



1	2	3	3	4			<i>k</i>
1	2	3	4	5	6	<i>i</i> ABCD	1234
0	D	D	C	C	D	1 0023	1 0221
0	-A	-B	C	C	2	1121	2 1011
0	C	-B	C	3	1121	2	1011
0	-B	-A	4	1220	3	1100	1100
0	-A	5	1220	3	1100	1100	1100
0	6	2021	4	1200			

GS.116 (complement of *GS.47*), its binary signs and semiotic model SM:

$$A: -2.4.4; B: -2.3.2; C: -u.2.0; D: +2.3.3; E: +3.4.4.$$



1	2	3	3	4	4			<i>k</i>
1	2	3	4	5	6	<i>i</i> ABCDE	1234	
0	-C	-C	-C	-C	-C	1 00500	1 0000	
0	D	D	-B	-B	2	02120	2 0020	
0	D	E	-A	3	10121	3	0111	
0	-A	E	4	10121	3	0111	0111	
0	E	5	11102	4	0011	0011	0011	
0	6	11102	4	0011				

Correspondence of vertex positions (orbits):

<i>GS.47</i>	1	2	3	4
<i>GS.116</i>	1	4	3	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.47</i>	9	5	4	4	3	3	2	1 ¹ 2 ⁴	0.280	1.000	0	2.510	<i>hpu</i>
<i>GS.116</i>	6	4	5	5	3	4	2	1 ² 2 ²	0.258	0.500	0	2.293	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5
<i>GS.47</i>	<i>Supp_n</i>	20	30	31	32	
	<i>k.k'(p)</i>	3.3 (-B)	2.2 (-A)	3.4 (-A)	2.3 (-B)	-
	<i>PF_n</i>	1/6	1/6	2/6	2/6	
	<i>Sub_n</i>	65	71	72	77	78
	<i>k.k'(p)</i>	2.4 (C)	2.3 (C)	1.4 (D)	1.3 (C)	1.2 (D)
<i>GS.116</i>	<i>Supp_n</i>	89	95	96	101	102
	<i>k.k'(p)</i>	2.4 (-B)	3.4 (-A)	1.2 (-C)	1.3 (-C)	1.4 (-C)
	<i>PF_n</i>	2/9	2/9	1/9	2/9	2/9
	<i>Sub_n</i>	125	135	136	137	
	<i>k.k'(p)</i>	3.3 (D)	4.4 (E)	2.3 (D)	3.4 (E)	-

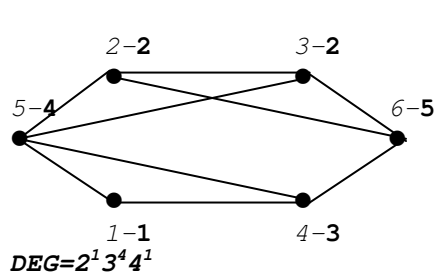
Graph-structures GS.48 (6.9.15) and GS.117 (6.6.15) (by Graph Atlas G172 and G103).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.373	0.137	2	216

GS.48, its binary signs and semiotic model SM:

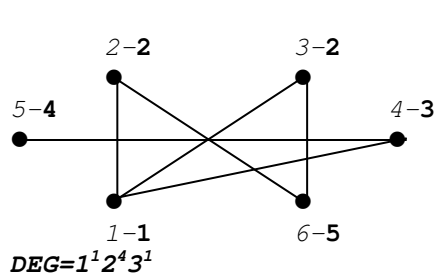
A:-2.5.7; B:-2.4.4; C:-2.3.2; D:+2.3.3; E:+2.4.5; F:+3.5.7.



1	2	2	3	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEF		12345
0	-C	-C	D	D	-C	1	003200	1	00110
0	E	-B	D	D		2	011210	2	01011
0	-B	D	D			3	011210	2	01011
0	D	F				4	020201	3	10011
0	-A					5	100400	4	12100
0						6	101201	5	02100

GS.117 (complement of GS.48), its binary signs and semiotic model SM:

A:-4.6.6; B:-3.5.5; C:-3.4.3; D:-2.4.4; E:-2.3.2; F:+1.2.1; G:+3.4.4.



1	2	2	3	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEFG		12345
0	G	G	F	-E	-D	1	0001112	1	02100
0	-D	-E	-C	G		2	0011102	2	10001
0	-E	-C	G			3	0011102	2	10001
0	F	-B				4	0100220	3	10010
0	-A					5	1020110	4	00100
0						6	1101002	5	02000

Correspondence of vertex positions (orbits):

GS.48	1	2	3	4	5
GS.117	1	2	5	4	3

Distinguishing invariants and measures:

GS	E	N ^f	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.48	9	7	4	6	3	4	2	1 ⁵ 2 ²	0.140	0.899	0	2.558	hp
GS.117	6	4	7	7	2	4	4	1 ² 2 ²	0.258	0	0.333	2.522	bpu

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4	5	6	7
GS.48	Supp _n	21	28	29	31			
	k.k'	1.5	1.2	2.3	4.5	-	-	-
	(p)	(-C)	(-C)	(-B)	(-A)			
	PF _n	1/6	2/6	2/6	1/6			
	Sub _n	59	61	66	67	72	73	74
	k.k' (p)	2.4 (D)	3.4 (D)	3.5 (F)	1.4 (D)	2.5 (D)	2.2 (E)	1.3 (D)
GS.117	Supp _n	83	85	90	91	96	97	98
	k.k'	2.4	4.5	3.5	1.4	2.3	2.2	1.5
	(p)	(-C)	(-A)	(-B)	(-E)	(-E)	(-D)	(-D)
	PF _n	2/9	1/9	1/9	1/9	2/9	1/9	1/9
	Sub _n	126	133	134	136			
	k.k' (p)	1.3 (F)	1.2 (G)	2.5 (G)	3.4 (F)	-	-	-
PF _n	1/6	2/6	2/6	1/6				

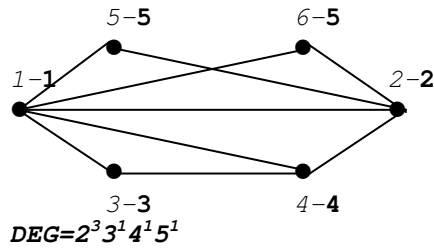
Graph-structures GS.49 (6.9.16) and GS.118 (6.6.16) (by Graph Atlas G162 and G88).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.373	0.137	2	216

GS.49, its binary signs and semiotic model SM:

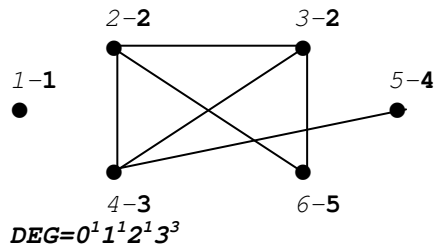
$$A: -2.4.5; B: -2.3.2; C: +2.3.3; D: +2.4.5; E: +2.5.7.$$



1	2	3	4	5	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDE		12345
0	E	C	D	C	C	1	00311	1	01112
0	-A	C	C	C		2	10301	2	10012
0	C	-B	-B			3	12200	3	10010
0	-A	-A				4	20210	4	11100
0	-A					5	21200	5	11000
0						6	21200	5	11000

GS.118 (complement of GS.49), its binary signs and semiotic model SM:

$$A: -3.5.6; B: -2.4.5; C: -2.3.2; D: -u.2.0; E: +1.2.1; F: +2.3.3; G: +2.4.5.$$



1	2	2	3	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEFG		12345
0	-D	-D	-D	-D	-D	1	0005000	1	00000
0	G	F	-C	F		2	0011021	2	01101
0	F	-C	F			3	0011021	2	01101
0	E	-B				4	0101120	3	02010
0	-A					5	1021100	4	00100
0						6	1101020	5	02000

Correspondence of vertex positions (orbits):

GS.49	1	2	3	4	5
GS.118	1	4	3	5	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.49	9	7	4	5	3	3	2	1 ⁵ 2 ²	0.140	1.000	0	2.483	pu
GS.118	6	4	7	7	3	3	3	1 ² 2 ²	0.258	0.833	0.167	2.230	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5	6	7
GS.49	<i>Supp_n</i>	24	30	31	32			
	<i>k.k'</i>	2.3	4.5	5.5	3.5	-	-	-
	<i>(p)</i>	(-A)	(-A)	(-A)	(-B)			
	<i>PF_n</i>	1/6	2/6	1/6	2/6			
	<i>Sub_n</i>	60	63	65	68	71	73	76
	<i>k.k' (p)</i>	1.4 (D)	3.4 (C)	2.4 (C)	1.3 (C)	2.5 (C)	1.2 (E)	1.5 (C)
GS.118	<i>Supp_n</i>	84	87	89	92	95	97	100
	<i>k.k'</i>	1.5	3.5	4.5	1.3	2.4	1.4	1.2
	<i>(p)</i>	(-D)	(-B)	(-A)	(-D)	(-C)	(-D)	(-D)
	<i>PF_n</i>	1/9	1/9	1/9	1/9	2/9	1/9	2/9
	<i>Sub_n</i>	129	135	136	137			
	<i>k.k' (p)</i>	3.4 (E)	2.5 (F)	2.2 (G)	2.3 (F)	-	-	-
	<i>PF_n</i>	1/6	2/6	1/6	2/6			

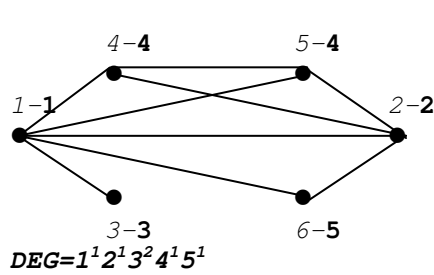
Graph-structures GS.50 (6.9.17) and GS.119 (6.6.17) (by Graph Atlas G156 and G87).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	216

GS.50, its binary signs and semiotic model SM:

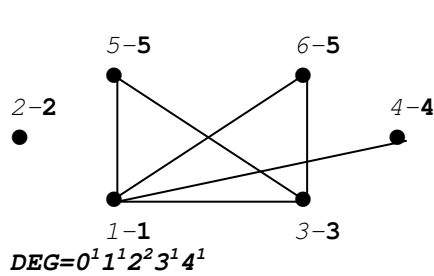
$$A:-2.4.5; B:-2.3.2; C:+1.2.1; D:+2.3.3; E:+2.4.6; F:+2.5.7.$$



1	2	3	4	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	<i>ABCDEF</i>	1	12345
0	F	C	E	E	D	1	001121	1	01121
0	-B	E	E	D	2	010121	2	10021	
0	-B	-B	-B	3	041000	3	10000		
0	E	-A	4	110030	4	11010			
0	-A	5	110030	4	11010				
0	6	210200	5	11000					

GS.119 (complement of GS.50), its binary signs and semiotic model SM:

$$A:-2.4.5; B:-2.3.2; C:-u.2.0; D:+1.2.1; E:+2.3.3; F:+2.4.5.$$



1	2	3	4	5	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	<i>ABCDEF</i>	1	12345
0	-C	F	D	E	E	1	001121	1	00112
0	-C	-C	-C	2	005000	2	00000		
0	-B	E	E	3	011021	3	10002		
0	-B	-B	4	031100	4	10000			
0	-A	5	111020	5	10100				
0	6	111020	5	10100					

Correspondence of vertex positions (orbits):

GS.50	1	2	3	4	5
GS.119	2	4	1	5	3

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.50	9	7	4	6	4	3	2	1 ⁵ 2 ²	0.140	0.889	0.111	2.441	p
GS.119	6	4	7	6	3	3	2	1 ² 2 ²	0.258	0.833	0.167	2.189	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5	6	7
GS.50	<i>Supp_n</i>	24	27	30	31			
	<i>k.k'</i>	2.3	4.5	3.4	3.5	-	-	-
	<i>(p)</i>	(-B)	(-A)	(-B)	(-B)			
	<i>PF_n</i>	1/6	2/6	2/6	1/6			
	<i>Sub_n</i>	56	62	63	69	71	74	76
	<i>k.k' (p)</i>	2.5 (D)	1.5 (D)	4.4 (E)	1.3 (C)	2.4 (E)	1.2 (F)	1.4 (E)
GS.119	<i>Supp_n</i>	80	86	87	93	95	98	100
	<i>k.k'</i>	3.4	2.3	5.5	1.2	4.5	2.4	2.5
	<i>(p)</i>	(-B)	(-C)	(-A)	(-C)	(-B)	(-C)	(-C)
	<i>PF_n</i>	1/9	1/9	1/9	1/9	2/9	1/9	2/9
	<i>Sub_n</i>	129	132	135	136			
	<i>k.k' (p)</i>	1.4 (D)	3.5 (E)	1.5 (E)	1.3 (F)	-	-	-
<i>PF_n</i>	1/6	2/6	2/6	1/6				

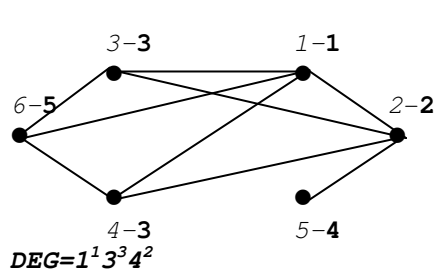
Graph-structures GS.51 (6.9.18) and GS.120 (6.6.18) (by Graph Atlas G159 and G95).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.373	0.137	2	216

GS.51, its binary signs and semiotic model SM:

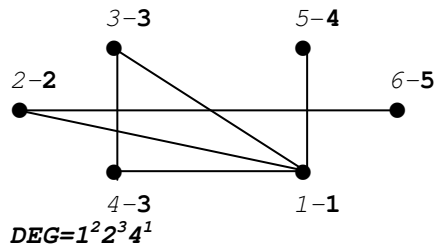
A:-3.6.9; B:-2.5.8; C:-2.3.2; D:+1.2.1; E:+2.3.3; F:+2.4.5.



1	2	3	3	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEF	1	12345
0	F	F	F	-C	F	1	001004	1	01201
0	E	E	D	-B		2	010121	2	10210
0	-B	-C	E			3	011021	3	11001
0	-C	E				4	011021	3	11001
0	-A					5	103100	4	01000
0						6	110021	5	10200

GS.120 (complement of GS.51), its binary signs and semiotic model SM:

A:-3.4.3; B:-2.3.2; C:+1.2.1; D:+2.3.3.



1	2	3	3	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCD	1	12345
0	C	D	D	C	-B	1	0122	1	01210
0	-B	-B	-B	C		2	0320	2	10001
0	D	-B	-A			3	1202	3	10100
0	-B	-A				4	1202	3	10100
0	-A					5	1310	4	10000
0						6	3110	5	01000

Correspondence of vertex positions (orbits):

GS.51	1	2	3	4	5
GS.120	4	5	3	1	2

Distinguishing invariants and measures:

GS	E	N ^f	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.51	9	6	5	6	3	3	3	1 ³ 2 ³	0.210	0.889	0.111	2.485	p
GS.120	6	5	6	4	3	3	3	1 ⁴ 2 ¹	0.129	0.500	0.500	2.418	p

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4	5	6
GS.51	Supp _n	25	26	27	29	32	
	k.k'(p)	3.3 (-B)	4.5 (-A)	2.5 (-B)	3.4 (-C)	1.4 (-C)	-
	PF _n	1/6	1/6	1/6	2/6	1/6	
	Sub _n	58	67	74	75	76	77
	k.k'(p)	2.4 (D)	1.2 (F)	1.3 (F)	1.5 (F)	3.5 (E)	2.3 (E)
GS.120	Supp _n	82	91	98	99	100	101
	k.k'(p)	1.5 (-B)	4.5 (-A)	3.4 (-B)	2.4 (-B)	2.3 (-B)	3.5 (-A)
	PF _n	1/9	1/9	2/9	1/9	2/9	2/9
	Sub _n	130	131	132	134	137	
	k.k'(p)	3.3 (D)	1.2 (C)	2.5 (C)	1.3 (D)	1.4 (C)	-

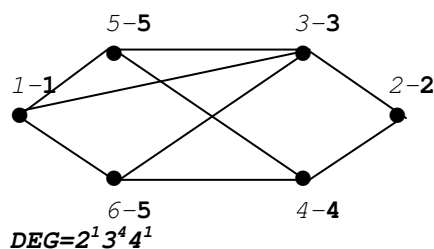
Graph-structures GS.52 (6.9.19) and GS.121 (6.6.19) (by Graph Atlas G173 and G102).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	216

GS.52, its binary signs and semiotic model SM:

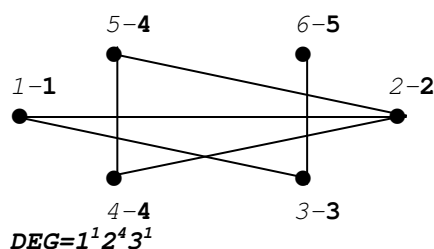
A: -2.5.7; B: -2.5.6; C: -2.4.4; D: -2.3.2;
 E: +2.3.3; F: +2.4.5; G: +3.5.6; H: +3.6.9.



1	2	3	4	5	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEFGH	12345	
0	-D	F	-C	E	E	1	00112100	1	00102
0	G	G	-C	-C		2	00210020	2	00110
0	-B	E	E			3	01002110	3	11002
0	H	H				4	01100012	4	01002
0	-A					5	10102001	5	10110
0						6	10102001	5	10110

GS.121 (complement of GS.52), its binary signs and semiotic model SM:

A: -4.5.4; B: -3.4.3; C: -2.3.2; D: +1.2.1; E: +2.3.3.



1	2	3	4	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDE	12345	
0	D	D	-C	-C	-C	1	00320	1	01100
0	-C	E	E	-B		2	01112	2	10020
0	-B	-B	D			3	02120	3	10001
0	E	-A				4	11102	4	01010
0	-A					5	11102	4	01010
0						6	21110	5	00100

Correspondence of vertex positions (orbits):

GS.52	1	2	3	4	5
GS.121	1	2	5	3	4

Distinguishing invariants and measures:

GS	E	N ⁺	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.52	9	6	5	8	3	4	2	1 ³ 2 ³	0.210	0.556	0	2.558	hp
GS.121	6	5	6	5	3	3	4	1 ⁴ 2 ¹	0.129	0.500	0.500	2.522	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj _n	1	2	3	4	5	6
GS.52	Supp _n	22	26	28	32	33	
	$k.k'(p)$	1.2 (-D)	1.4 (-C)	2.5 (-C)	3.4 (-B)	5.5 (-A)	-
	PF _n	1/6	1/6	2/6	1/6	1/6	
	Sub _n	57	67	70	73	75	78
	$k.k'(p)$	1.3 (F)	2.3 (G)	3.5 (E)	1.5 (E)	2.4 (G)	4.5 (H)
	PF _n	1/9	1/9	2/9	2/9	1/9	2/9
GS.121	Supp _n	81	91	94	97	99	102
	$k.k'(p)$	1.5 (-C)	2.5 (-B)	4.5 (-A)	1.4 (-C)	2.3 (-C)	3.4 (-B)
	PF _n	1/9	1/9	2/9	2/9	1/9	2/9
	Sub _n	127	131	133	137	138	
	$k.k'(p)$	1.2 (D)	1.3 (D)	2.4 (E)	3.5 (D)	4.4 (E)	-
	PF _n	1/6	1/6	2/6	1/6	1/6	

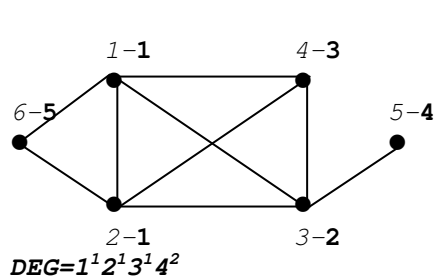
Graph-structures GS.53 (6.9.20) and GS.122 (6.6.20) (by Graph Atlas G157 and G93).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	216

GS.53, its binary signs and semiotic model SM:

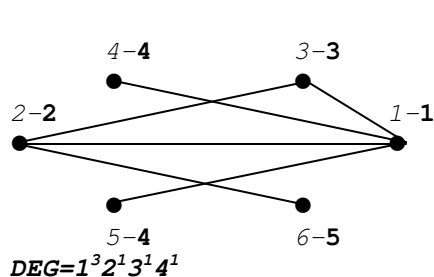
A:-3.5.6; B:-2.4.5; C:-2.3.2; D:+1.2.1; E:+2.3.3; F:+2.4.6; G:+2.5.8.



1	2	3	4	5	6	<i>i</i>	ABCDEFG	<i>k</i>	12345
1	2	3	4	5	6	1	0010121	1	11101
0	G	F	F	-C	E	2	0010121	1	11101
0	F	F	-C	E	3	0101030	2	20110	
0	-C	-B	4	0110030	3	21000	3	21000	
0	-A	5	1031000	4	01000	4	01000		
0	6	1200200	5	20000	5	20000			

GS.122 (complement of GS.53), its binary signs and semiotic model SM:

A:-3.4.3; B:-2.3.2; C:+1.2.1; D:+2.3.3.



1	2	3	4	5	6	<i>i</i>	ABCD	<i>k</i>	12345
1	2	3	4	5	6	1	0122	1	01120
0	D	D	C	C	-B	2	0212	2	10101
0	D	-B	-B	C	3	0302	3	11000	
0	-B	-B	-B	4	1310	4	10000		
0	-A	5	1310	4	10000				
0	6	2210	5	01000					

Correspondence of vertex positions (orbits):

GS.53	1	2	3	4	5
GS.122	4	5	3	1	2

Distinguishing invariants and measures:

GS	E	N ^f	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.53	9	6	5	7	4	3	3	1 ³ 2 ³	0.210	0.889	0.111	2.461	p
GS.122	6	5	6	4	3	3	3	1 ⁴ 2 ¹	0.129	0.500	0.500	2.355	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj _n	1	2	3	4	5	6
GS.53	Supp _n	23	25	27	30	33	-
	$k.k'(p)$	3.4(-C)	3.5(-B)	2.5(-B)	1.4(-C)	4.5(-A)	-
	PF _n	1/6	1/6	1/6	2/6	1/6	-
	Sub _n	62	68	69	75	76	77
	$k.k'(p)$	1.5(E)	2.3(F)	2.4(D)	1.1(G)	1.3(F)	1.2(F)
GS.122	Supp _n	86	92	93	99	100	101
	$k.k'(p)$	2.4(-B)	3.5(-B)	1.5(-B)	4.4(-B)	3.4(-B)	4.5(-A)
	PF _n	2/9	1/9	1/9	1/9	2/9	2/9
	Sub _n	128	130	132	135	138	-
	$k.k'(p)$	1.3(D)	2.3(D)	2.5(D)	1.4(C)	1.2(D)	-
	PF _n	1/6	1/6	1/6	2/6	1/6	-

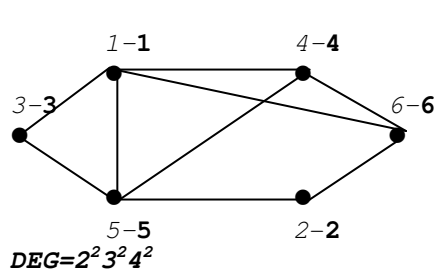
Graph-structures *GS.54* (6.9.21) and *GS.123* (6.6.21) (by Graph Atlas G164 and G90).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
0-symmetry	6	15	1 ⁶	0	1 ¹⁵	3.907	0	1	432

GS.54, its binary signs and semiotic model SM:

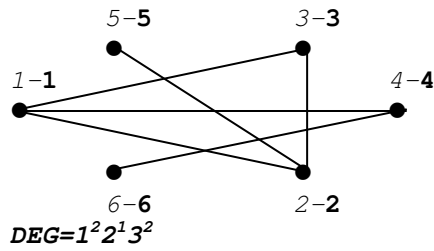
A:-2.5.7; B:-2.4.5; C:-2.4.4; D:-2.3.2; E:+2.3.3; F:+2.4.5; G:+3.5.7.



1	2	3	4	5	6				<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEFG	FG	123456
0	-C	E	F	F	E	1	0010220	1	001111
0	-D	-C	G	G	2	0021002	2	000011	
0	-B	E	-D	3	0102200	3	100010		
0	E	E	4	0110210	4	100011			
0	-A	5	1000211	5	111100				
0	6	1001201	6	110100					

GS.123 (complement of *GS.54*), its binary signs and semiotic model SM:

A:-4.5.4; B:-3.4.3; C:-2.3.2; D:+1.2.1; E:+2.3.3.



1	2	3	4	5	6				<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE	E	123456
0	E	E	D	-C	-C	1	00212	1	011100
0	E	-C	D	-B	2	01112	2	101010	
0	-C	-C	-B	3	01202	3	110000		
0	-B	D	4	01220	4	100001			
0	-A	5	11210	5	010000				
0	6	12110	6	000100					

Correspondence of vertex positions (orbits):

<i>GS.54</i>	1	2	3	4	5	6
<i>GS.123</i>	5	2	1	3	6	4

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.54</i>	9	9	6	7	3	4	2	1 ⁹	0	0.778	0	2.531	<i>hpu</i>
<i>GS.123</i>	6	6	9	5	3	3	4	1 ⁶	0	0.500	0.500	2.459	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5	6	7	8	9
<i>GS.54</i>	<i>Supp_n</i>	26	28	29	30	32	33			
	<i>k.k'</i>	3.4	2.3	3.6	5.6	1.2	2.4	-	-	-
	<i>PF_n</i>	1/6	1/6	1/6	1/6	1/6	1/6			
	<i>Sub_n</i>	60	70	72	73	74	75	76	77	78
	<i>k.k'</i>	4.6	1.5	4.5	1.4	1.3	3.5	2.6	2.5	1.6
	<i>PF_n</i>	1/9	1/9	1/9	1/9	1/9	1/9	1/9	1/9	1/9
<i>GS.123</i>	<i>Supp_n</i>	84	94	96	97	98	99	100	101	102
	<i>k.k'</i>	3.4	5.6	3.6	3.5	1.5	1.6	2.4	2.6	4.5
	<i>PF_n</i>	1/9	1/9	1/9	1/9	1/9	1/9	1/9	1/9	1/9
	<i>Sub_n</i>	131	133	134	135	137	138			
	<i>k.k'</i>	1.4	1.2	2.3	4.6	2.5	1.3	-	-	-
	<i>PF_n</i>	1/6	1/6	1/6	1/6	1/6	1/6			

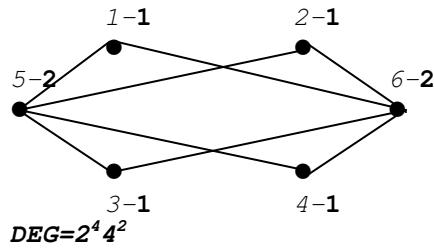
Graph-structures GS.55 (6.8.1) and GS.79 (6.7.1) (by Graph Atlas G146 and G116).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	3	2 ¹ 4 ¹	0.645	1 ¹ 6 ¹ 8 ¹	1.273	0.674	48	7

GS.55, its binary signs and semiotic model SM:

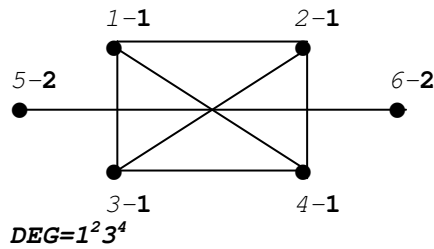
$$A: -2.6.8; B: -2.4.4; C: +3.6.8.$$



1	1	1	1	2	2			<i>k</i>	
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>		12
0	-B	-B	-B	C	C	1	032	1	02
	0	-B	-B	C	C	2	032	1	02
		0	-B	C	C	3	032	1	02
			0	C	C	4	032	1	02
				0	-A	5	104	2	40
					0	6	104	2	40

GS.79 (complement of GS.55), its binary signs and semiotic model SM:

$$A: -1.2.0; B: +1.2.1; C: +2.4.6.$$



1	1	1	1	2	2			<i>k</i>	
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>		12
0	C	C	C	-A	-A	1	203	1	30
	0	C	C	-A	-A	2	203	1	30
		0	C	-A	-A	3	203	1	30
			0	-A	-A	4	203	1	30
				0	B	5	410	2	01
					0	6	410	2	01

Correspondence of vertex positions (orbits):

GS.55	1	2
GS.79	1	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.55	8	1	2	3	2	4	2	8 ¹	1.000	0	0	2.500	bepu
GS.79	7	2	1	3	4	3	1	1 ¹ 6 ¹	0.789	0.857	0.143	2.449	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2
GS.55	<i>Supp_n</i>	35	41
	<i>k.k'(p)</i>	2.2 (-A)	1.1 (-B)
	<i>PF_n</i>	1/7	6/7
	<i>Sub_n</i>	88	
GS.79	<i>k.k'(p)</i>	1.2 (C)	-
	<i>PF_n</i>	8/8	
	<i>Supp_n</i>	64	
	<i>k.k'(p)</i>	1.2 (-A)	-
	<i>PF_n</i>	8/8	
	<i>Sub_n</i>	104	110
	<i>k.k'(p)</i>	2.2 (B)	1.1 (C)
	<i>PF_n</i>	1/7	6/7

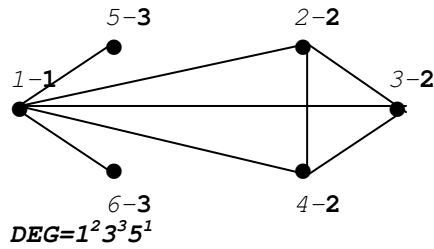
Graph-structures GS.56 (6.8.2) and GS.80 (6.7.2) (by Graph Atlas G133 and G108).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	1 ¹ 2 ¹ 3 ¹	0.478	1 ¹ 2 ¹ 3 ² 6 ¹	2.106	0.461	12	28

GS.56, its binary signs and semiotic model SM:

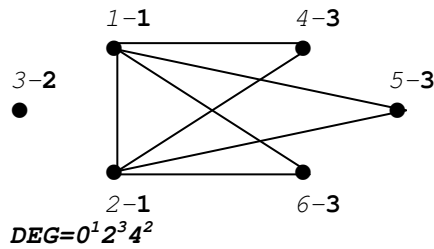
$$A: -2.3.2; \quad B: +1.2.1; \quad C: +2.4.6.$$



1	2	2	2	3	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>	123
0	<i>C</i>	<i>C</i>	<i>C</i>	<i>B</i>	<i>B</i>	1	023	1 032
0	<i>C</i>	<i>C</i>	-A	-A		2	203	2 120
0	<i>C</i>	<i>C</i>	-A	-A		3	203	2 120
0	-A	-A				4	203	2 120
0	-A					5	410	3 100
0						6	410	3 100

GS.80 (complement of GS.56), its binary signs and semiotic model SM:

$$A: -2.4.5; \quad B: -u.2.0; \quad C: +2.3.3; \quad D: +2.5.7.$$



1	1	2	3	3	3	<i>k</i>		
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>	123
0	<i>D</i>	-B	<i>C</i>	<i>C</i>	<i>C</i>	1	0131	1 103
0	-B	<i>C</i>	<i>C</i>	<i>C</i>		2	0131	1 103
0	-B	-B	-B			3	0500	2 000
0	-A	-A				4	2120	3 200
0	-A					5	2120	3 200
0						6	2120	3 200

Correspondence of vertex positions (orbits):

GS.56	1	2	3
GS.80	2	3	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.56	8	3	2	3	4	3	2	2 ¹ 3 ²	0.480	0.750	0.250	2.383	p
GS.80	7	2	3	4	3	3	2	1 ¹ 6 ¹	0.789	1.000	0	2.236	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3
GS.56	<i>Supp_n</i>	38	50	
	<i>k.k'(p)</i>	3.3 (-A)	2.3 (-A)	-
	<i>PF_n</i>	1/7	6/7	
	<i>Sub_n</i>	87	92	93
	<i>k.k'(p)</i>	1.3 (B)	1.2 (C)	2.2 (C)
	<i>PF_n</i>	2/8	3/8	3/8
GS.80	<i>Supp_n</i>	63	68	69
	<i>k.k'(p)</i>	1.2 (-B)	2.3 (-B)	3.3 (-A)
	<i>PF_n</i>	2/8	3/8	3/8
	<i>Sub_n</i>	107	119	
	<i>k.k'(p)</i>	1.1 (D)	1.3 (C)	-

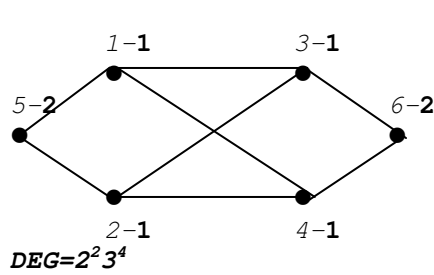
Graph-structures GS.57 (6.8.3) and GS.81 (6.7.3) (by Graph Atlas G154 and G130).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	2	5	2 ¹ 4 ¹	0.645	1 ¹ 2 ¹ 4 ³	2.174	0.444	8	42

GS.57, its binary signs and semiotic model SM:

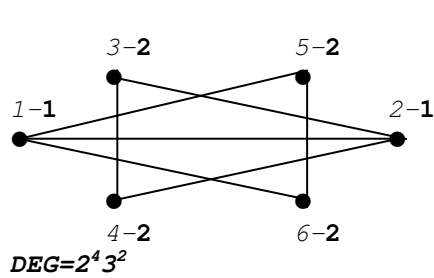
$$A: -3.6.8; B: -2.5.6; C: -2.4.4; D: +3.5.6; E: +3.6.8.$$



										<i>k</i>
1	1	1	1	2	2	<i>i</i>	ABCDE			
1	2	3	4	5	6	1	01112	1	21	
0	-B	E	E	D	-C	2	01112	1	21	
0	-B	-C	D			3	01112	1	21	
0	-C	D				4	01112	1	21	
0	-A					5	10220	2	20	
0						6	10220	2	20	

GS.81 (complement of GS.57), its binary signs and semiotic model SM:

$$A: -3.4.3; B: -2.3.2; C: +1.2.1; D: +2.3.3.$$



										<i>k</i>
1	1	2	2	2	2	<i>i</i>	ABCD			
1	2	3	4	5	6	1	0212	1	12	
0	C	-B	-B	D	D	2	0212	1	12	
0	D	D	-B	-B		3	2102	2	11	
0	D	-A	-A			4	2102	2	11	
0	-A	-A				5	2102	2	11	
0		D				6	2102	2	11	

Correspondence of vertex positions (orbits):

GS.57	1	2
GS.81	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.57	8	2	3	5	2	4	3	4 ²	0.667	0	0	2.561	bhpu
GS.81	7	3	2	4	3	3	3	1 ¹ 2 ¹ 4 ¹	0.509	0.857	0	2.557	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3
GS.57	<i>Supp_n</i>	34	44	52
	<i>k.k'(p)</i>	2.2 (-A)	1.1 (-B)	1.2 (-C)
	<i>PF_n</i>	1/7	2/7	4/7
	<i>Sub_n</i>	83	90	
	<i>k.k'(p)</i>	1.2 (D)	1.1 (E)	-
GS.81	<i>Supp_n</i>	59	66	
	<i>k.k'(p)</i>	2.2 (-A)	1.2 (-B)	-
	<i>PF_n</i>	4/8	4/8	
	<i>Sub_n</i>	103	113	121
	<i>k.k'(p)</i>	1.1 (C)	2.2 (D)	1.2 (D)

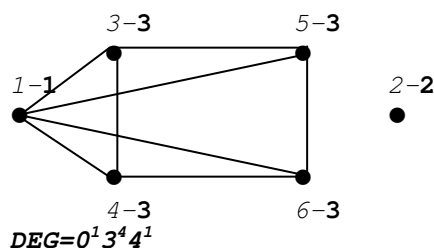
Graph-structures GS.58 (6.8.4) and GS.82 (6.7.4) (by Graph Atlas G132 and G117).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	5	1 ² 4 ¹	0.516	1 ¹ 2 ¹ 4 ³	2.174	0.444	8	42

GS.58, its binary signs and semiotic model SM:

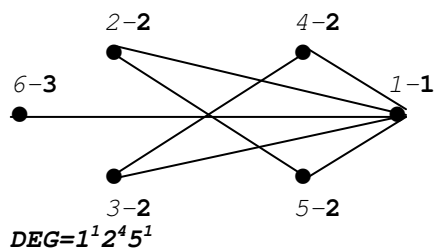
$$A: -2.5.8; B: -u.2.0; C: +2.3.3; D: +2.4.5.$$



1	2	3	3	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>		123
0	-B	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	1	0104	1	004
0	-B	-B	-B	-B		2	0500	2	000
0	<i>C</i>	<i>C</i>	-A			3	1121	3	102
0	-A	<i>C</i>				4	1121	3	102
0	<i>C</i>					5	1121	3	102
0						6	1121	3	102

GS.82 (complement of GS.58), its binary signs and semiotic model SM:

$$A: -2.3.2; B: +1.2.1; C: +2.3.3.$$



1	2	2	2	2	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABC</i>		123
0	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>B</i>	1	014	1	041
0	-A	-A	<i>C</i>	-A		2	302	2	110
0	<i>C</i>	-A	-A			3	302	2	110
0	-A	-A				4	302	2	110
0	-A					5	302	2	110
0						6	410	3	100

Correspondence of vertex positions (orbits):

GS.58	1	2	3
GS.82	3	1	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.58	8	2	3	4	3	3	2	4 ²	0.667	1.000	0	2.311	<i>p</i>
GS.82	7	3	2	3	3	3	2	1 ¹ 2 ¹ 4 ¹	0.509	0.857	0.143	2.407	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3
GS.58	<i>Supp_n</i>	39	40	51
	<i>k.k'(p)</i>	3.3 (-A)	1.2 (-B)	2.3 (-B)
	<i>PF_n</i>	2/7	1/7	4/7
	<i>Sub_n</i>	89	95	
	<i>k.k'(p)</i>	1.3 (D)	3.3 (C)	-
GS.82	<i>PF_n</i>	4/8	4/8	
	<i>Supp_n</i>	65	71	
	<i>k.k'(p)</i>	2.3 (-A)	2.2 (-A)	-
	<i>PF_n</i>	4/8	4/8	
	<i>Sub_n</i>	108	109	120
	<i>k.k'(p)</i>	2.2 (C)	1.3 (B)	1.2 (C)
	<i>PF_n</i>	2/7	1/7	4/7

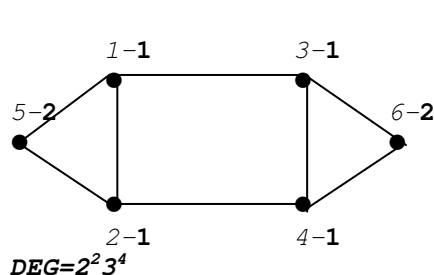
Graph-structures GS.59 (6.8.5) and GS.83 (6.7.5) (by Graph Atlas G152 and G128).

Common invariants of the structure and its complement:

GS	K	N	SVV	SV	SRV	HR	SR	aut	3003PS
Partial	2	6	2 ¹ 4 ¹	0.645	1 ¹ 2 ³ 4 ²	2.440	0.374	4	84

GS.59, its binary signs and semiotic model SM:

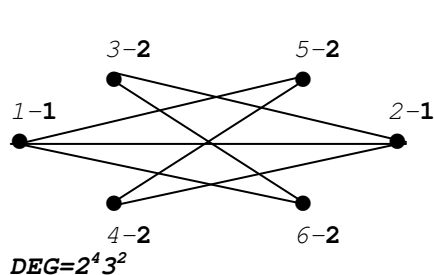
$$A: -3.6.8; B: -2.4.4; C: -2.3.2; D: +2.3.3; E: +3.4.4.$$



1	1	1	1	2	2					k
1	2	3	4	5	6	i	ABCDE			12
0	D	E	-B	D	-C	1	01121	1	21	
0	-B	E	D	-C		2	01121	1	21	
0	D	-C	D			3	01121	1	21	
0	-C	D				4	01121	1	21	
0	-A					5	10220	2	20	
0						6	10220	2	20	

GS.83 (complement of GS.59), its binary signs and semiotic model SM:

$$A: -3.6.7; B: -2.4.4; C: -2.3.2; D: +3.4.4; E: +3.6.7.$$



1	1	2	2	2	2					k
1	2	3	4	5	6	i	ABCDE			12
0	E	-B	-B	D	D	1	02021	1	12	
0	D	D	-B	-B		2	02021	1	12	
0	-C	-A	D			3	11120	2	11	
0	D	-A				4	11120	2	11	
0	-C					5	11120	2	11	
0						6	11120	2	11	

Correspondence of vertex positions (orbits):

GS.59	1	2
GS.83	2	1

Distinguishing invariants and measures:

GS	E	N ⁺	N ⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.59	8	3	3	5	3	4	3	2 ² 4 ¹	0.500	0.750	0	2.561	hp
GS.83	7	3	3	5	2	4	3	1 ¹ 2 ¹ 4 ¹	0.509	0	0	2.557	bhpu

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3
GS.59	Supp _n	36	45	48
	k.k'(p)	2.2 (-A)	1.1 (-B)	1.2 (-C)
	PF _n	1/7	2/7	4/7
	Sub _n	81	94	102
	k.k'(p)	1.1 (E)	1.1 (D)	1.2 (D)
GS.83	PF _n	2/8	2/8	4/8
	Supp _n	57	70	78
	k.k'(p)	2.2 (-A)	2.2 (-C)	1.2 (-B)
	PF _n	2/8	2/8	4/8
	Sub _n	105	114	117
k.k'(p)	1.1 (E)	2.2 (D)	1.2 (D)	
PF _n	1/7	2/7	4/7	

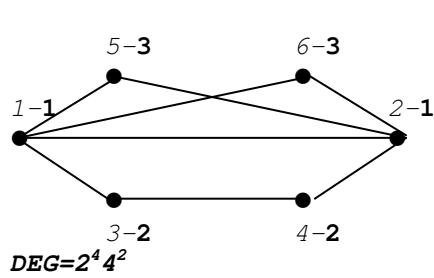
Graph-structures GS.60 (6.8.6) and GS.84 (6.7.6) (by Graph Atlas G145 and G115).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	7	2 ³	0.523	1 ³ 2 ² 4 ²	2.574	0.341	4	84

GS.60, its binary signs and semiotic model SM:

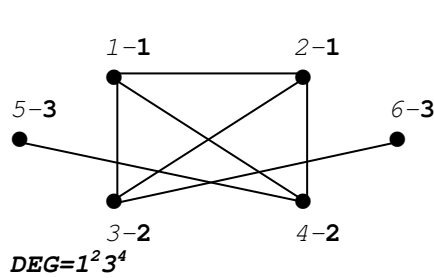
A:-2.4.4.5; B:-2.4.4; C:-2.3.2; D:+2.3.3; E:+2.4.5; F:+3.4.4.



1	2	3	3					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEF	123
0	E	F	-B	D	D	1	010211	1 112
0	-B	F	D	D	2	010211	1 112	
0	F	-C	-C	3	012002	2	110	
0	-C	-C	4	012002	2	110		
0	-A	5	102200	3	200			
0	6	102200	3	200				

GS.84 (complement of GS.60), its binary signs and semiotic model SM:

A:-4.6.7; B:-3.5.6; C:-2.4.5; D:-2.3.2; E:+1.2.1; F:+2.3.3; G:+2.4.5.



1	2	3	3					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEFGG	123
0	G	F	F	-D	-D	1	0002021	1 120
0	F	F	-D	-D	2	0002021	1 120	
0	-C	-B	E	3	0110120	2	201	
0	E	-B	4	0110120	2	201		
0	-A	5	1102100	3	010			
0	6	1102100	3	010				

Correspondence of vertex positions (orbits):

GS.60	1	2	3
GS.84	3	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.60	8	4	3	6	3	4	2	1 ² 2 ¹ 4 ¹	0.416	0.625	0	2.500	ep
GS.84	7	3	4	7	3	3	4	1 ¹ 2 ¹ 4 ¹	0.509	0.714	0.286	2.449	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
GS.60	Supp_n	42	49	54	
	k.k'(p)	3.3 (-A)	1.2 (-B)	2.3 (-C)	-
	PF_n	1/7	2/7	4/7	
	Sub_n	85	86	98	101
	k.k'(p)	1.1 (E)	2.2 (F)	1.2 (F)	1.3 (D)
GS.84	Supp_n	61	62	74	77
	k.k'(p)	3.3 (-A)	2.2 (-C)	2.3 (-B)	1.3 (-D)
	PF_n	1/8	1/8	2/8	4/8
	Sub_n	111	118	123	
	k.k'(p)	1.1 (G)	2.3 (E)	1.2 (F)	-
	PF_n	1/7	2/7	4/7	

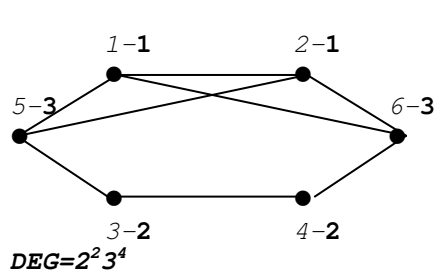
Graph-structures *GS.61* (6.8.7) and *GS.85* (6.7.7) (by Graph Atlas G153 and G129).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	7	2 ³	0.523	1 ³ 2 ² 4 ²	2.574	0.341	4	84

GS.61, its binary signs and semiotic model SM:

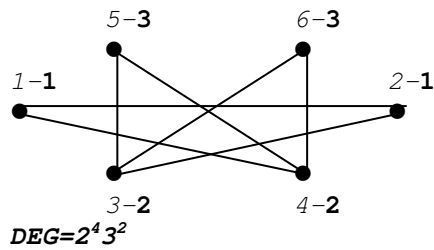
$$A: -2.4.5; B: -2.3.2; C: +2.3.3; D: +2.4.5; E: +4.6.8.$$



1	1	2	2	3	3					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE			123
0	D	-B	-B	C	C	1	02210	1	102	
0	-B	-B	C	C		2	02210	1	102	
0	E	E	-B			3	03002	2	011	
0	-B	E				4	03002	2	011	
0	-A					5	11201	3	210	
0						6	11201	3	210	

GS.85 (complement of *GS.61*), its binary signs and semiotic model SM:

$$A: -2.4.4; B: -2.3.2; C: +3.4.4; D: +4.6.7.$$



1	1	2	2	3	3					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCD			123
0	D	-B	D	-B	-B	1	0302	1	110	
0	D	-B	-B	-B		2	0302	1	110	
0	-A	C	C			3	1121	2	102	
0	C	C				4	1121	2	102	
0	-A					5	1220	3	020	
0						6	1120	3	020	

Correspondence of vertex positions (orbits):

<i>GS.61</i>	1	2	3
<i>GS.85</i>	3	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.61</i>	8	4	3	5	3	5	2	1 ² 2 ¹ 4 ¹	0.417	0.625	0	2.561	hp
<i>GS.85</i>	7	3	4	4	2	5	2	1 ¹ 2 ¹ 4 ¹	0.509	0	0	2.557	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
<i>GS.61</i>	<i>Supp_n</i>	42	46	48	
	<i>k.k'(p)</i>	3.3 (-A)	1.2 (-B)	2.3 (-B)	-
	<i>PF_n</i>	1/7	4/7	2/7	
	<i>Sub_n</i>	84	85	94	97
	<i>k.k'(p)</i>	2.2 (E)	1.1 (D)	1.3 (C)	2.3 (E)
<i>GS.85</i>	<i>Supp_n</i>	60	61	70	73
	<i>k.k'(p)</i>	2.2 (-A)	3.3 (-A)	1.3 (-B)	1.2 (-B)
	<i>PF_n</i>	1/8	1/8	4/8	2/8
	<i>Sub_n</i>	111	115	117	
	<i>k.k'(p)</i>	1.1 (D)	2.3 (C)	1.2 (D)	-
	<i>PF_n</i>	1/7	4/7	2/7	

Comments: The first of five cases in the graph system $\mathcal{G}^{IV=6}$, where complement is also its adjacent structure: a) Complement *GS.85* of structure *GS.61* is also its adjacent substructure *Sub_{n=2}*. b) Complement *GS.61* of structure *GS.85* is also its adjacent superstructure *Supp_{n=2}*.

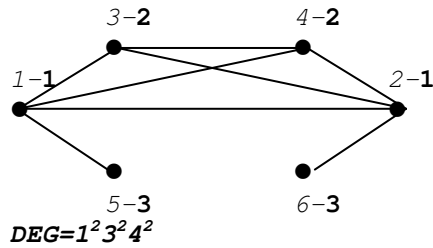
Graph-structures GS.62 (6.8.8) and GS.86 (6.7.8) (by Graph Atlas G134 and G112).

Common invariants of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	3	7	2 ³	0.523	1 ³ 2 ² 4 ²	2.574	0.341	4	84

GS.62, its binary signs and semiotic model SM:

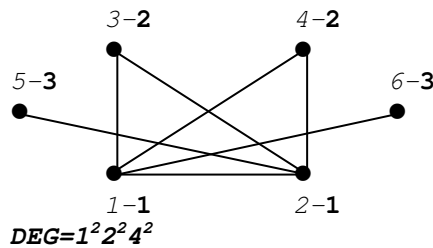
$$A: -3.4.3; B: -2.3.2; C: +1.2.1; D: +2.4.6.$$



1	1	2	2	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>		123
0	D	D	D	C	-B	1	0113	1	121
0	D	D	-B	C		2	0113	1	121
0	D	-B	-B			3	0203	2	210
0	-B	-B				4	0203	2	210
0	-A					5	1310	3	100
0						6	1310	3	100

GS.86 (complement of GS.62), its binary signs and semiotic model SM:

$$A: -3.4.3; B: -2.4.5; C: -2.3.2; D: +1.2.1; E: +2.3.3; F: +2.4.5.$$



1	1	2	2	3	3				<i>k</i>
1	2	3	4	5	6	<i>i</i>	<i>ABCDEF</i>		123
0	F	E	E	-C	D	1	001121	1	121
0	E	E	D	-C		2	001121	1	121
0	-B	-C	-C			3	012020	2	200
0	-C	-C				4	012020	2	200
0	-A					5	103100	3	100
0						6	103100	3	100

Correspondence of vertex positions (orbits):

GS.62	1	2	3
GS.86	3	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.62	8	4	3	4	4	3	3	1 ² 2 ¹ 4 ¹	0.416	0.750	0.250	2.406	p
GS.86	7	3	4	6	3	3	3	1 ¹ 2 ¹ 4 ¹	0.509	0.714	0.286	2.379	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
GS.62	<i>Supp_n</i>	42	50	53	
	<i>k.k'(p)</i>	3.3 (-A)	1.3 (-B)	2.3 (-B)	-
	<i>PF_n</i>	1/7	2/7	4/7	
	<i>Sub_n</i>	84	86	87	100
	<i>k.k'(p)</i>	1.1 (D)	2.2 (D)	1.3 (C)	1.2 (D)
GS.86	<i>Supp_n</i>	60	62	63	76
	<i>k.k'(p)</i>	3.3 (-A)	2.2 (-B)	1.3 (-C)	2.3 (-C)
	<i>PF_n</i>	1/8	1/8	2/8	4/8
	<i>Sub_n</i>	111	119	122	
	<i>k.k'(p)</i>	1.1 (F)	1.3 (D)	1.2 (E)	-
	<i>PF_n</i>	1/7	2/7	4/7	

Comments: a) Complement **GS.86** of structure **GS.62** is also its *adjacent substructure* $Sub_{n=2}$. b) Complement **GS.86** of structure **GS.86** is also its *adjacent superstructure* $Supp_{n=2}$.

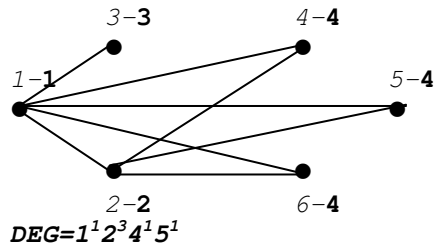
Graph-structures GS.63 (6.8.9) and GS.87 (6.7.9) (by Graph Atlas G135 and G107).

Common invariants and measures of the structure and its complement:

Symmetry	K	N	SVV	SV	SRV	HR	SR	aut	3003PS
Partial	4	7	1 ³ 3 ¹	0.183	1 ³ 3 ⁴	2.639	0.325	6	56

GS.63, its binary signs and semiotic model SM:

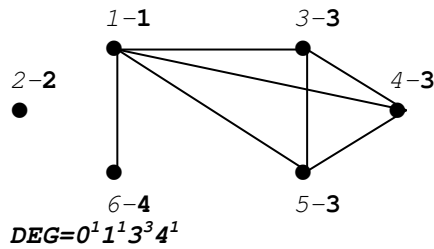
A: -2.4.5; B: -2.3.2; C: +1.2.1; D: +2.3.3; E: +2.5.7.



1	2	3	4	4	4	k			
1	2	3	4	5	6	i	ABCDE		1234
0	E	C	D	D	D	1	00131	1	0113
0	-B	D	D	D		2	01031	2	1003
0	-B	-B	-B			3	04100	3	1000
0	-A	-A				4	21020	4	1100
0	-A					5	21020	4	1100
0						6	21020	4	1100

GS.87 (complement of GS.63), its binary signs and semiotic model SM:

A: -2.3.2; B: -u.2.0; C: +1.2.1; D: +2.4.6.



1	2	3	3	3	4	k			
1	2	3	4	5	6	i	ABCD		1234
0	-B	D	D	D	C	1	0113	1	0031
0	-B	-B	-B	-B		2	0500	2	0000
0	D	D	-A			3	1103	3	1020
0	D	-A				4	1103	3	1020
0	-A					5	1103	3	1020
0						6	3110	4	1000

Correspondence of vertex positions (orbits):

GS. 63	1	2	3	4
GS. 87	2	4	1	3

Distinguishing invariants and measures:

GS	 E 	N^r	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS. 63	8	4	3	5	3	3	2	1 ² 3 ²	0.396	0.875	0.125	2.399	p
GS. 87	7	3	4	4	4	3	2	1 ¹ 3 ²	0.484	0.857	0.143	2.217	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj_n	1	2	3	4
GS. 63	Supp_n	35	49	50	
	k.k'(p)	2.3 (-B)	3.4 (-B)	4.4 (-A)	-
	PF_n	1/7	3/7	3/7	
	Sub_n	80	86	88	93
	k.k'(p)	1.3 (C)	1.4 (D)	1.2 (E)	2.4 (D)
GS. 87	Supp_n	56	62	64	69
	k.k'(p)	1.2 (-B)	2.3 (-B)	2.4 (-B)	3.4 (-A)
	PF_n	1/8	3/8	1/8	3/8
	Sub_n	104	118	119	
	k.k'(p)	1.4 (C)	1.3 (D)	3.3 (D)	-
	PF_n	1/7	3/7	3/7	

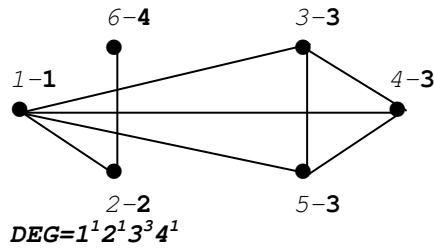
Graph-structures GS.64 (6.8.10) and GS.88 (6.7.10) (by Graph Atlas G142 and G121).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	7	1 ³ 3 ¹	0.183	1 ³ 3 ⁴	2.639	0.325	6	56

GS.64, its binary signs and semiotic model SM:

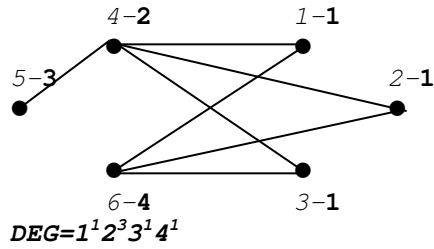
$$A: -3.4.3; B: -2.3.2; C: +1.2.1; D: +2.4.6.$$



1	2	3	3	3	4	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCD	1	1234
0	C	D	D	D	-B	1	0113	1	0130
0	-B	-B	-B	C		2	0320	2	1001
0	D	D	-A			3	1103	3	1020
0	D	-A				4	1103	3	1020
0	-A					5	1103	3	1020
0						6	3110	4	0100

GS.88 (complement of **GS.64**), its binary signs and semiotic model SM:

$$A: -3.6.7; B: -2.5.6; C: -2.4.4; D: -2.3.2; E: +1.2.1; F: +3.5.6.$$



1	1	1	2	3	4	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEF	1	1234
0	-C	-C	F	-D	F	1	002102	1	0101
0	-C	F	-D	F		2	002102	1	0101
0	F	-D	F			3	002102	1	0101
0	E	-B				4	010013	2	3010
0	-A					5	100310	3	0100
0						6	110003	4	3000

Correspondence of vertex positions (orbits):

GS. 64	1	2	3	4
GS. 88	3	4	1	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N^r</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS. 64	8	4	3	4	4	3	3	1 ² 3 ²	0.396	0.750	0.250	2.484	p
GS. 88	7	3	4	6	2	4	3	1 ¹ 3 ²	0.484	0	0.143	2.468	bpu

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
GS. 64	<i>Supp_n</i>	38	42	43	
	<i>k.k'(p)</i>	1.4 (-B)	3.4 (-A)	2.3 (-B)	-
	<i>PF_n</i>	1/7	3/7	3/7	
	<i>Sub_n</i>	79	87	97	98
	<i>k.k'(p)</i>	1.2 (C)	2.4 (C)	1.3 (D)	3.3 (D)
GS. 88	<i>Supp_n</i>	55	63	73	74
	<i>k.k'(p)</i>	3.4 (-A)	2.4 (-B)	1.3 (-D)	1.1 (-C)
	<i>PF_n</i>	1/8	1/8	3/8	3/8
	<i>Sub_n</i>	107	111	112	
	<i>k.k'(p)</i>	2.3 (E)	1.2 (F)	1.4 (F)	-

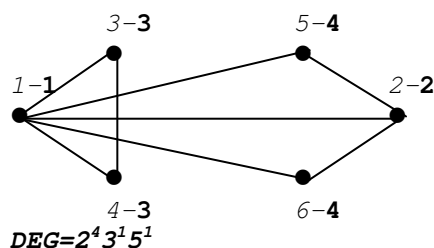
Graph-structures GS.65 (6.8.11) and GS.89 (6.7.11) (by Graph Atlas G144 and G110).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	84

GS.65, its binary signs and semiotic model SM:

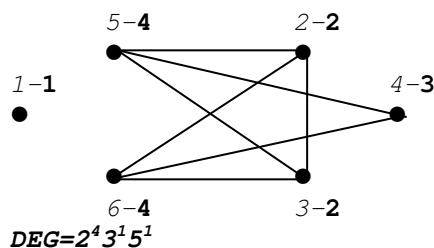
$$A: -2.4.5; B: -2.3.2; C: +2.3.3; D: +2.4.5.$$



1	2	3	3	4	4	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>	1	1234
0	<i>D</i>	<i>C</i>	<i>C</i>	<i>C</i>	<i>C</i>	1	0041	1	0122
0	- <i>B</i>	- <i>B</i>	<i>C</i>	<i>C</i>		2	0221	2	1002
0	<i>C</i>	- <i>B</i>	- <i>B</i>			3	0320	3	1010
0	- <i>B</i>	- <i>B</i>				4	0320	3	1010
0	- <i>A</i>					5	1220	4	1100
0						6	1220	4	1100

GS.89 (complement of GS.65), its binary signs and semiotic model SM:

$$A: -2.5.7; B: -2.4.4; C: -u.2.0; D: +2.3.3; E: +2.4.5; F: +3.5.7.$$



1	2	2	3	4	4	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	<i>ABCDEF</i>	1	1234
0	- <i>C</i>	- <i>C</i>	- <i>C</i>	- <i>C</i>	- <i>C</i>	1	005000	1	0000
0	<i>E</i>	- <i>B</i>	<i>D</i>	<i>D</i>		2	011210	2	0102
0	- <i>B</i>	<i>D</i>	<i>D</i>			3	011210	2	0102
0	<i>F</i>	<i>F</i>				4	021002	3	0002
0	- <i>A</i>					5	101201	4	0210
0						6	101201	4	0210

Correspondence of vertex positions (orbits):

GS. 65	1	2	3	4
GS. 89	1	3	4	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^t</i>	<i>N</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS. 65	8	5	3	4	3	3	2	1 ² 2 ³	0.250	1.000	0	2.477	<i>p</i>
GS. 89	7	3	5	6	3	4	2	1 ¹ 2 ¹ 4 ¹	0.509	0.714	0	2.306	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5
GS. 65	<i>Supp_n</i>	38	47	49		
	<i>k.k' (p)</i>	4.4 (-A)	3.4 (-B)	2.3 (-B)	-	-
	<i>PF_n</i>	1/7	4/7	2/7		
	<i>Sub_n</i>	82	91	93	98	99
	<i>k.k' (p)</i>	2.4 (C)	1.2 (D)	3.3 (C)	1.3 (C)	1.4 (C)
GS. 89	<i>Supp_n</i>	58	67	69	74	75
	<i>k.k' (p)</i>	2.3 (-B)	1.3 (-C)	4.4 (-A)	1.4 (-C)	1.2 (-C)
	<i>PF_n</i>	2/8	1/8	1/8	2/8	2/8
	<i>Sub_n</i>	107	116	118		
	<i>k.k' (p)</i>	2.2 (E)	2.4 (D)	3.4 (F)	-	-
	<i>PF_n</i>	1/7	4/7	2/7		

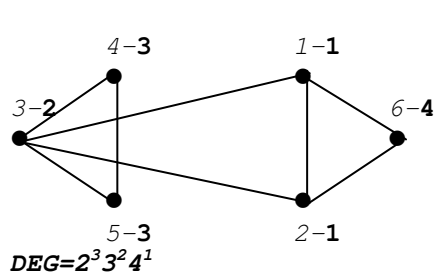
Graph-structures GS.66 (6.8.12) and GS.90 (6.7.12) (by Graph Atlas G150 and G125).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	84

GS.66, its binary signs and semiotic model SM:

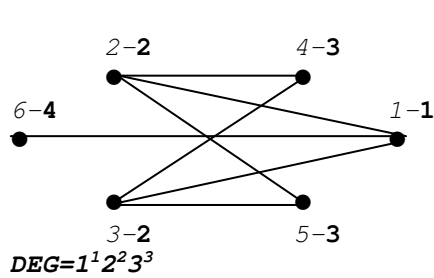
$$A: -3.5.6; B: -2.4.5; C: -2.3.2; D: +2.3.3; E: +2.4.5.$$



1	2	3	3	4					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDE		1234
0	E	D	-C	-C	D	1	00221	1	1101
0	D	-C	-C	D	2	00221	1	1101	
0	D	D	-B	3	01040	2	2020		
0	D	-A	4	10220	3	0110			
0	-A	5	10220	3	0110				
0	6	21020	4	2000					

GS.90 (complement of GS.66), its binary signs and semiotic model SM:

$$A: -3.5.5; B: -2.5.6; C: -2.4.4; D: -2.3.2; E: +1.2.1; F: +3.5.6.$$



1	2	2	3	3	4					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEF		1234	
0	F	F	-C	-C	E	1	002012	1	0201	
0	-B	F	F	-D	2	010103	2	1020		
0	F	F	-D	3	010103	2	1020			
0	C	-A	4	102002	3	0200				
0	-A	5	102002	3	0200					
0	6	200210	4	1000						

Correspondence of vertex positions (orbits):

GS.66	1	2	3	4
GS.90	3	4	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.66	8	5	3	5	3	3	3	1 ² 2 ³	0.250	1.000	0	2.531	<i>p</i>
GS.90	7	3	5	6	2	4	3	1 ¹ 2 ¹ 4 ¹	0.509	0	0.143	2.503	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5
GS.66	<i>Supp_n</i>	38	45	48		
	<i>k.k'(p)</i>	2.4 (-B)	1.3 (-C)	3.4 (-A)	-	-
	<i>PF_n</i>	1/7	4/7	2/7		
	<i>Sub_n</i>	81	91	92	97	99
	<i>k.k'(p)</i>	1.2 (D)	1.1 (E)	3.3 (D)	2.3 (D)	1.4 (D)
GS.90	<i>Supp_n</i>	57	67	68	73	75
	<i>k.k'(p)</i>	3.4 (-A)	3.3 (-C)	2.2 (-B)	2.4 (-D)	1.3 (-C)
	<i>PF_n</i>	2/8	1/8	1/8	2/8	2/8
	<i>Sub_n</i>	107	114	117		
	<i>k.k'(p)</i>	1.4 (E)	2.3 (F)	1.2 (F)	-	-

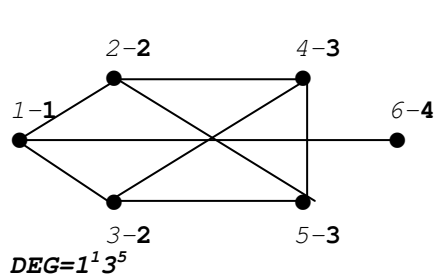
Graph-structures GS.67 (6.8.13) and GS.91 (6.7.13) (by Graph Atlas G143 and G126).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	84

GS.67, its binary signs and semiotic model SM:

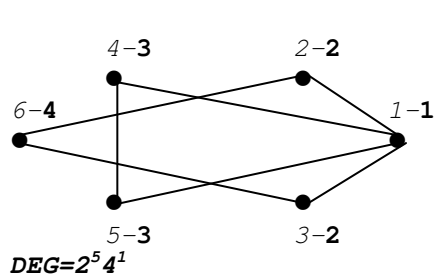
A: -3.5.5; B: -2.5.7; C: -2.4.4; D: -2.3.2;
 E: +1.2.1; F: +2.3.3; G: +2.4.5; H: +3.5.7.



<i>i</i>	<i>ABCDEF</i>	<i>G</i>	<i>H</i>	<i>k</i>
1	00201002	1	0201	1234
2	01010201	2	1020	1020
3	01010201	2	1020	1020
4	10100210	3	0210	0210
5	10100210	3	0210	0210
6	20021000	4	1000	1000

GS.91 (complement of GS.67), its binary signs and semiotic model SM:

A: -3.5.5; B: -2.4.4; C: -2.3.2; D: +2.3.3; E: +3.4.4.



<i>i</i>	<i>ABCDE</i>	<i>k</i>
1	01022	10220
2	01202	21001
3	01202	21001
4	10220	31010
5	10220	31010
6	21002	40200

Correspondence of vertex positions (orbits):

GS. 67	1	2	3	4
GS. 91	4	3	2	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS. 67	8	4	4	8	3	4	3	1 ² 2 ¹ 4 ¹	0.416	0.625	0.125	2.514	p
GS. 91	7	4	4	5	3	4	3	1 ¹ 2 ³	0.305	0.429	0	2.522	ep

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
GS. 67	<i>Supp_n</i>	43	48	51	52
	<i>k.k'(p)</i>	2.2 (-B)	2.4 (-D)	1.3 (-C)	3.4 (-A)
	<i>PF_n</i>	1/7	2/7	2/7	2/7
	<i>Sub_n</i>	89	90	97	102
	<i>k.k'(p)</i>	1.4 (E)	3.3 (G)	1.2 (H)	2.3 (F)
GS. 91	<i>Supp_n</i>	65	66	73	78
	<i>k.k'(p)</i>	1.4 (-B)	2.2 (-B)	3.4 (-A)	2.3 (-C)
	<i>PF_n</i>	1/8	1/8	2/8	4/8
	<i>Sub_n</i>	112	117	120	121
	<i>k.k'(p)</i>	3.3 (D)	1.3 (D)	2.4 (E)	1.2 (E)

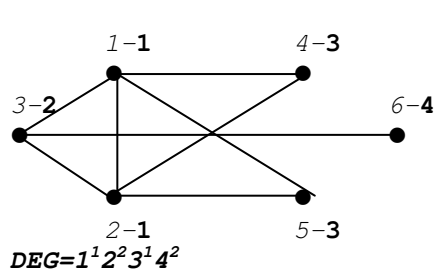
Graph-structures GS.68 (6.8.14) and GS.92 (6.7.14) (by Graph Atlas G138 and G114).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	84

GS.68, its binary signs and semiotic model SM:

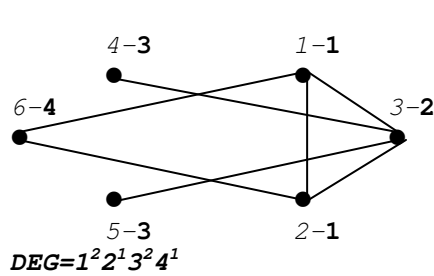
A: -3.5.6; B: -2.4.5; C: -2.3.2; D: +1.2.1; E: +2.3.3; F: +2.5.7.



1	1	2	3	3	4	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEF		1234
0	F	E	E	E	-C	1	001031	1	1120
0	E	E	E	E	-C	2	001031	1	1120
0	-B	-B	D			3	020120	2	2001
0	-B	-A				4	120020	3	2000
0	-A					5	120020	3	2000
0						6	202100	4	0100

GS.92 (complement of GS.68), its binary signs and semiotic model SM:

A: -3.5.6; B: -2.4.5; C: -2.3.2; D: +1.2.1; E: +2.3.3; F: +2.4.5.



1	1	2	3	3	4	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEF		1234
0	F	E	-C	-C	E	1	002021	1	1101
0	E	-C	-C	E		2	002021	1	1101
0	D	D	-B			3	010220	2	2020
0	-C	-A				4	103100	3	0100
0	-A					5	103100	3	0100
0						6	210020	4	2000

Correspondence of vertex positions (orbits):

GS. 68	1	2	3	4
GS. 92	3	4	1	2

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS. 68	8	4	4	6	3	3	3	1 ² 2 ¹ 4 ¹	0.416	0.875	0.125	2.453	p
GS. 92	7	4	4	6	3	3	3	1 ¹ 2 ³	0.305	0.714	0.286	2.414	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4
GS. 68	Supp_n	43	44	49	53
	k.k' (p)	3.3 (-B)	3.4 (-A)	1.4 (-C)	2.3 (-B)
	PF_n	1/7	2/7	2/7	2/7
	Sub_n	80	90	98	100
	k.k' (p)	2.4 (D)	1.1 (F)	1.2 (E)	1.3 (E)
GS. 92	Supp_n	56	66	74	76
	k.k' (p)	2.4 (-B)	3.3 (-C)	3.4 (-A)	1.3 (-C)
	PF_n	1/8	1/8	2/8	4/8
	Sub_n	112	113	118	122
	k.k' (p)	1.1 (F)	1.2 (E)	2.3 (D)	1.4 (E)
	PF_n	1/7	2/7	2/7	2/7

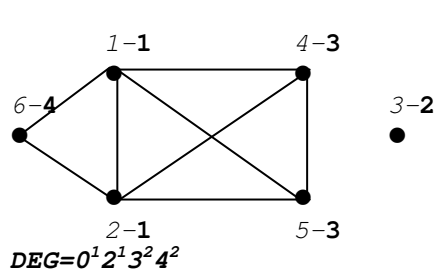
Graph-structures GS.69 (6.8.15) and GS.93 (6.7.15) (by Graph Atlas G131 and G111).

Common invariants and measures of the structure and its complement:

GS	K	N	SVV	SV	SRV	HR	SR	aut	3003PS
Partial	4	8	1 ² 2 ²	0.266	1 ³ 2 ⁴ 4 ¹	2.840	0.273	4	84

GS.69, its binary signs and semiotic model SM:

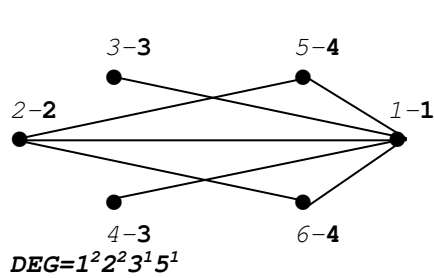
$$A: -2.4.5; B: -u.2.0; C: +2.3.3; D: +2.4.6; E: +2.5.8.$$



1	2	3	3	4	k			
1	2	3	4	5	6	i	ABCDE	1234
0	E	-B	D	D	C	1	01121	1 1021
0	-B	D	D	C	2	01121	1 1021	
0	-B	-B	-B	3	05000	2	0000	
0	D	-A	4	11030	3	2010		
0	-A	5	11030	3	2010			
0	6	21200	4	2000				

GS.93 (complement of GS.69), its binary signs and semiotic model SM:

$$A: -2.4.5; B: -2.3.2; C: +1.2.1; D: +2.3.3; E: +2.4.5.$$



1	2	3	3	4	4	k			
1	2	3	4	5	6	i	ABCDE	1234	
0	E	C	C	D	D	1	00221	1 0122	
0	-B	-B	D	D	2	02021	2 1002		
0	-B	-B	-B	3	04100	3 1000			
0	-B	-B	4	04100	3 1000				
0	-A	5	12020	4 1100					
0	6	12020	4 1100						

Correspondence of vertex positions (orbits):

GS.69	1	2	3	4
GS.93	3	1	4	2

Distinguishing invariants and measures:

GS	E	N ⁺	N ⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.69	8	4	4	5	4	3	2	1 ² 2 ¹ 4 ¹	0.416	1.000	0	2.281	p
GS.93	7	4	4	5	3	3	2	1 ¹ 2 ³	0.305	0.714	0.286	2.353	p

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4
GS.69	Supp _n	39	43	50	53
	k.k'(p)	3.4 (-A)	2.4 (-B)	1.2 (-B)	2.3 (-B)
	PF _n	2/7	1/7	2/7	2/7
	Sub _n	80	87	89	95
	k.k'(p)	3.3 (D)	1.4 (C)	1.1 (E)	1.3 (D)
	PF _n	1/8	2/8	1/8	4/8
GS.93	Supp _n	56	63	65	71
	k.k'(p)	4.4 (-A)	2.3 (-B)	3.3 (-B)	3.4 (-B)
	PF _n	1/8	2/8	1/8	4/8
	Sub _n	108	112	119	122
	k.k'(p)	2.4 (D)	1.2 (E)	1.3 (C)	1.4 (D)
	PF _n	2/7	1/7	2/7	2/7

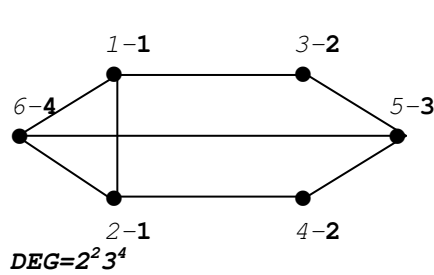
Graph-structures *GS.70* (6.8.16) and *GS.94* (6.7.16) (by Graph Atlas G151 and G127).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	9	$1^2 2^2$	0,266	$1^3 2^6$	3.107	0.205	2	168

GS.70, its binary signs and semiotic model SM:

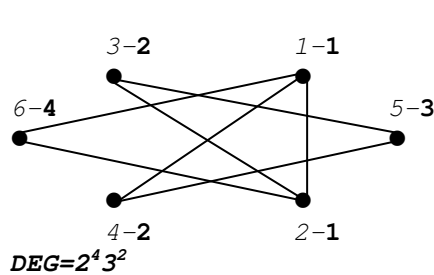
$$A: -2.4.4; B: -2.3.2; C: +2.3.3; D: +3.4.4; E: +3.6.8.$$



$\mathbf{1}$	$\mathbf{1}$	$\mathbf{2}$	$\mathbf{2}$	$\mathbf{3}$	$\mathbf{4}$				\mathbf{k}
$\mathbf{1}$	$\mathbf{2}$	$\mathbf{3}$	$\mathbf{4}$	$\mathbf{5}$	$\mathbf{6}$	\mathbf{i}	\mathbf{ABCDE}		
$\mathbf{0}$	\mathbf{C}	\mathbf{D}	$\mathbf{-B}$	$\mathbf{-A}$	\mathbf{C}	$\mathbf{1}$	$\mathbf{11210}$	$\mathbf{1}$	$\mathbf{1101}$
	$\mathbf{0}$	$\mathbf{-B}$	\mathbf{D}	$\mathbf{-A}$	\mathbf{C}	$\mathbf{2}$	$\mathbf{11210}$	$\mathbf{1}$	$\mathbf{1101}$
		$\mathbf{0}$	$\mathbf{-B}$	\mathbf{D}	$\mathbf{-A}$	$\mathbf{3}$	$\mathbf{12020}$	$\mathbf{2}$	$\mathbf{1010}$
			$\mathbf{0}$	\mathbf{D}	$\mathbf{-A}$	$\mathbf{4}$	$\mathbf{12020}$	$\mathbf{2}$	$\mathbf{1010}$
				$\mathbf{0}$	\mathbf{E}	$\mathbf{5}$	$\mathbf{20021}$	$\mathbf{3}$	$\mathbf{0201}$
					$\mathbf{0}$	$\mathbf{6}$	$\mathbf{20201}$	$\mathbf{4}$	$\mathbf{2010}$

GS.94 (complement of *GS.70*), its binary signs and semiotic model SM:

$$A: -3.6.7; B: -2.3.2; C: +2.3.3; D: +4.5.5.$$



$\mathbf{1}$	$\mathbf{1}$	$\mathbf{2}$	$\mathbf{2}$	$\mathbf{3}$	$\mathbf{4}$				\mathbf{k}
$\mathbf{1}$	$\mathbf{2}$	$\mathbf{3}$	$\mathbf{4}$	$\mathbf{5}$	$\mathbf{6}$	\mathbf{i}	\mathbf{ABCD}		
$\mathbf{0}$	\mathbf{C}	$\mathbf{-B}$	\mathbf{D}	$\mathbf{-B}$	\mathbf{C}	$\mathbf{1}$	$\mathbf{0221}$	$\mathbf{1}$	$\mathbf{1101}$
	$\mathbf{0}$	\mathbf{D}	$\mathbf{-B}$	$\mathbf{-B}$	\mathbf{C}	$\mathbf{2}$	$\mathbf{0221}$	$\mathbf{1}$	$\mathbf{1101}$
		$\mathbf{0}$	$\mathbf{-B}$	\mathbf{D}	$\mathbf{-B}$	$\mathbf{3}$	$\mathbf{0302}$	$\mathbf{2}$	$\mathbf{1010}$
			$\mathbf{0}$	\mathbf{D}	$\mathbf{-B}$	$\mathbf{4}$	$\mathbf{0302}$	$\mathbf{2}$	$\mathbf{1010}$
				$\mathbf{0}$	$\mathbf{-A}$	$\mathbf{5}$	$\mathbf{1202}$	$\mathbf{3}$	$\mathbf{0200}$
					$\mathbf{0}$	$\mathbf{6}$	$\mathbf{1220}$	$\mathbf{4}$	$\mathbf{2000}$

Correspondence of vertex positions (orbits):

<i>GS. 70</i>	1	2	3	4
<i>GS. 94</i>	2	1	3	4

Distinguishing invariants and measures:

<i>GS</i>	$ E $	N^+	N^-	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS. 70</i>	8	5	4	5	3	4	2	$1^2 2^3$	0.250	0.375	0	2.561	hp
<i>GS. 94</i>	7	4	5	4	3	5	3	$1^1 2^3$	0.305	0.429	0	2.557	hp

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	Adj_n	1	2	3	4	5
<i>GS. 70</i>	$Supp_n$	36	46	52	54	
	$k.k'(p)$	2.2 (-B)	2.4 (-A)	1.2 (-B)	1.3 (-A)	-
	PF_n	1/7	2/7	2/7	2/7	
	Sub_n	83	85	94	96	102
	$k.k'(p)$	1.1 (C)	1.4 (C)	3.4 (E)	2.3 (D)	1.2 (D)
	PF_n	1/8	2/8	1/8	2/8	2/8
<i>GS. 94</i>	$Supp_n$	59	61	70	72	78
	$k.k'(p)$	2.2 (-B)	2.4 (-B)	3.4 (-A)	1.3 (-B)	1.2 (-B)
	PF_n	1/8	2/8	1/8	2/8	2/8
	Sub_n	105	115	121	123	
	$k.k'(p)$	1.1 (C)	1.4 (C)	1.2 (D)	2.3 (D)	-
	PF_n	1/7	2/7	2/7	2/7	

Comments: Complements appear to adjacent structures: a) Complement *GS.94* of structure *GS.70* is also its adjacent substructure $Sub_{n=3}$. b) Complement *GS.70* of structure *GS.94* is also its adjacent superstructure $Supp_{n=3}$.

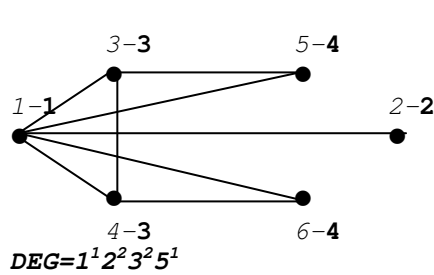
Graph-structures *GS.71* (6.8.17) and *GS.95* (6.7.17) (by Graph Atlas G136 and G109).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	9	1 ² 2 ²	0.266	1 ³ 2 ⁶	3.107	0.205	2	168

GS.71, its binary signs and semiotic model SM:

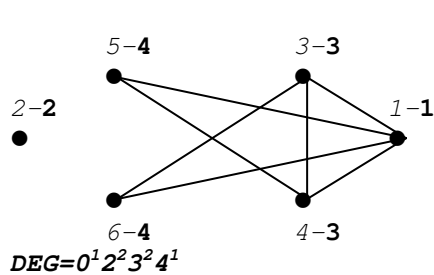
$$A: -2.4.5; B: -2.3.2; C: +1.2.1; D: +2.3.3; E: +2.4.5.$$



1	2	3	3	4	4	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDE	<i>k</i>	1234
0	C	E	E	D	D	1	00122	1	0122
0	-B	-B	-B	-B		2	04100	2	1000
0	D	D	-A			3	11021	3	1011
0	-A	D				4	11021	3	1011
0	-B					5	12020	4	1010
0						6	12020	4	1010

GS.95 (complement of *GS.71*), its binary signs and semiotic model SM:

$$A: -2.4.5; B: -2.3.2; C: -u.2.0; D: +2.3.3; E: +2.4.5.$$



1	2	3	3	4	4	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDE		1234
0	-C	E	E	D	D	1	00122	1	0022
0	-C	-C	-C	-C		2	00500	2	0000
0	D	-A	D			3	10121	3	1011
0	D	-A				4	10121	3	1011
0	-B					5	11120	4	1010
0						6	11120	4	1010

Correspondence of vertex positions (orbits):

<i>GS. 71</i>	1	2	3	4
<i>GS. 95</i>	2	1	4	3

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS. 71</i>	8	5	4	5	3	3	2	1 ² 2 ³	0.250	0.875	0.125	2.430	<i>p</i>
<i>GS. 95</i>	7	4	5	5	3	3	2	1 ¹ 2 ³	0.305	1.000	0	2.271	<i>p</i>

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5
<i>GS. 71</i>	<i>Supp_n</i>	40	47	49	50	
	<i>k . k' (p)</i>	4.4 (-B)	2.4 (-B)	2.3 (-B)	3.4 (-A)	-
	<i>PF_n</i>	1/7	2/7	2/7	2/7	
	<i>Sub_n</i>	82	93	95	100	101
	<i>k . k' (p)</i>	3.3 (D)	3.4 (D)	1.2 (C)	1.4 (D)	1.3 (E)
	<i>PF_n</i>	1/8	2/8	1/8	2/8	2/8
<i>GS. 95</i>	<i>Supp_n</i>	58	69	71	76	78
	<i>k . k' (p)</i>	4.4 (-B)	3.4 (-A)	1.2 (-C)	2.3 (-C)	2.4 (-C)
	<i>PF_n</i>	1/8	2/8	1/8	2/8	2/8
	<i>Sub_n</i>	109	116	118	119	
	<i>k . k' (p)</i>	3.3 (D)	1.3 (E)	1.4 (D)	3.4 (D)	-
	<i>PF_n</i>	1/7	2/7	2/7	2/7	

Comments: Complements appear to adjacent structures: a) Complement *GS.95* of structure *GS.71* is also its adjacent substructure $Sub_{n=3}$. b) Complement *GS.71* of structure *GS.95* is also its adjacent superstructure $Supp_{n=3}$.

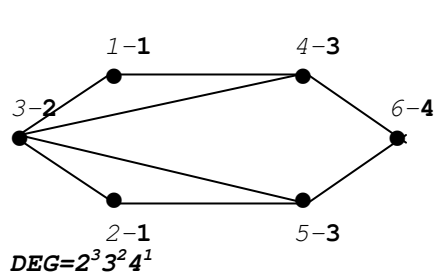
Graph-structures GS.72 (6.8.18) and GS.96 (6.7.18) (by Graph Atlas G148 and G124).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	4	9	1 ² 2 ²	0.266	1 ³ 2 ⁶	3.107	0.205	2	168

GS.72, its binary signs and semiotic model SM:

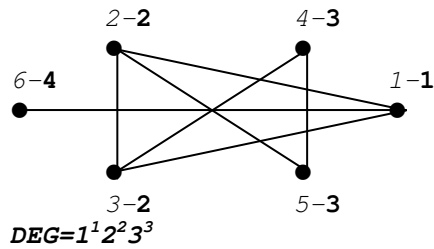
$$A: -2.4.4; B: -2.3.2; C: +2.3.3; D: +3.4.4.$$



1	2	3	4	5	6	<i>i</i>	<i>ABCD</i>	<i>k</i>	1234
1	2	3	4	5	6	1	0320	1	0110
0	-B	C	C	-B	-B	2	0320	1	0110
0	C	-B	C	-B		3	1040	2	2020
0	C	C	-A			4	1121	3	1101
0	-A	D				5	1121	3	1101
0	D					6	1202	4	0020

GS.96 (complement of GS.72), its binary signs and semiotic model SM:

$$A: -3.4.3; B: -2.4.4; C: -2.3.2; D: +1.2.1; E: +2.3.3; F: +3.4.4.$$



1	2	3	4	5	6	<i>i</i>	<i>ABCDEF</i>	<i>k</i>	1234
1	2	3	4	5	6	1	002120	1	0201
0	E	E	-C	-C	D	2	011021	2	1110
0	E	-B	F	-C		3	011021	2	1110
0	F	-B	-C			4	111002	3	0110
0	F	-A				5	111002	3	0110
0	-A					6	202100	4	1000

Correspondence of vertex positions (orbits):

GS. 72	1	2	3	4
GS. 96	2	4	3	1

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS. 72	8	4	5	4	3	4	2	2 ⁴	0.333	0.750	0	2.531	hp
GS. 96	7	5	4	6	3	4	3	1 ³ 2 ²	0.204	0.429	0.143	2.503	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5
GS. 72	<i>Supp_n</i>	37	46	47	48	54
	<i>k.k' (p)</i>	3.3 (-A)	1.1 (-B)	2.4 (-A)	1.4 (-B)	1.3 (-B)
	<i>PF_n</i>	1/7	1/7	1/7	2/7	2/7
	<i>Sub_n</i>	94	99	101	102	
	<i>k.k' (p)</i>	2.3 (C)	3.4 (D)	1.3 (C)	1.2 (C)	-
GS. 96	<i>Supp_n</i>	70	75	77	78	
	<i>k.k' (p)</i>	3.4 (-A)	1.3 (-C)	2.3 (-B)	2.4 (-C)	-
	<i>PF_n</i>	2/8	2/8	2/8	2/8	
	<i>Sub_n</i>	106	115	116	117	123
	<i>k.k' (p)</i>	3.3 (F)	2.2 (E)	1.4 (D)	1.2 (E)	2.3 (F)

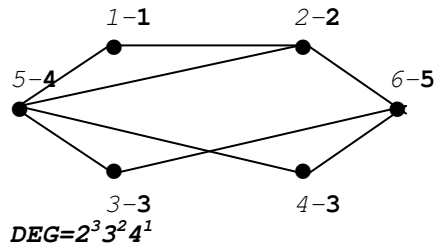
Graph-structures GS.73 (6.8.19) and GS.97 (6.7.19) (by Graph Atlas G149 and G123).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	168

GS.73, its binary signs and semiotic model SM:

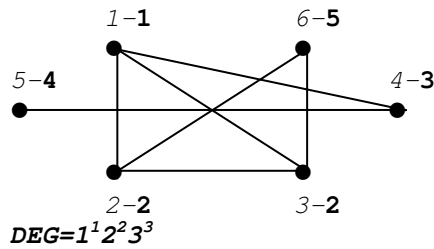
A: -2.5.6; B: -2.4.4; C: -2.3.2; D: +2.3.3; E: +3.5.6.



1	2	3	3	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDE		12345
0	D	-C	-C	D	-C	1	00320	1	01010
0	-B	-B	D	E		2	02021	2	10011
0	-B	E	E			3	02102	3	00011
0	E	E				4	02102	3	00011
0	-A					5	10022	4	11200
0						6	10103	5	01200

GS.97 (complement of GS.73), its binary signs and semiotic model SM:

A: -4.6.7; B: -3.5.6; C: -3.4.3; D: -2.4.5; E: -2.3.2;
F: +1.2.1; G: +2.3.3; H: +2.4.5.



1	2	2	3	4	5	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEFGH		12345
0	G	G	F	-E	-D	1	00011120	1	02100
0	H	-E	-C	G		2	00101021	2	11001
0	-E	-C	G			3	00101021	2	11001
0	F	-B				4	01002200	3	10010
0	-A					5	10201100	4	00100
0						6	11010020	5	02000

Correspondence of vertex positions (orbits):

GS.73	1	2	3	4	5
GS.97	1	5	2	4	3

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N^f</i>	<i>N^r</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
GS.73	8	6	5	8	3	4	2	1 ⁴ 2 ²	0.167	0.375	0	2.531	p
GS.97	7	5	6	6	3	3	4	1 ³ 2 ²	0.204	0.714	0.286	2.503	p

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>Adj_n</i>	1	2	3	4	5	6
GS.73	<i>Supp_n</i>	41	48	49	52	54	
	<i>k.k' (p)</i>	1.5 (-C)	3.3 (-B)	4.5 (-A)	1.3 (-C)	2.3 (-B)	-
	<i>PF_n</i>	1/7	1/7	1/7	2/7	2/7	
	<i>Sub_n</i>	85	88	90	91	101	102
	<i>k.k' (p)</i>	2.4 (D)	1.2 (D)	1.4 (D)	2.5 (E)	3.5 (E)	3.4 (E)
	<i>PF_n</i>	1/8	1/8	1/8	1/8	2/8	2/8
GS.97	<i>Supp_n</i>	61	64	66	67	77	78
	<i>k.k' (p)</i>	4.5 (-A)	1.5 (-D)	1.4 (-E)	3.5 (-B)	2.3 (-E)	2.4 (-C)
	<i>PF_n</i>	1/8	1/8	1/8	1/8	2/8	2/8
	<i>Sub_n</i>	110	117	118	121	123	
	<i>k.k' (p)</i>	1.3 (F)	2.2 (H)	3.4 (F)	1.2 (G)	2.5 (G)	-
	<i>PF_n</i>	1/7	1/7	1/7	2/7	2/7	

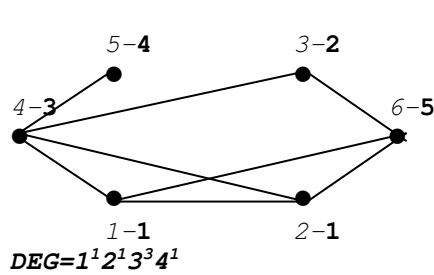
Graph-structures GS.74 (6.8.20) and GS.98 (6.7.20) (by Graph Atlas G141 and G120).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	168

GS.74, its binary signs and semiotic model SM:

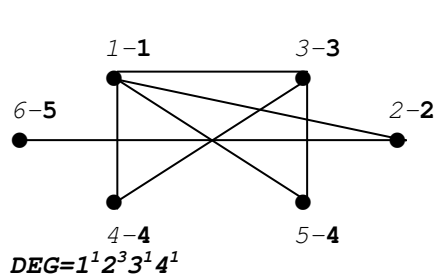
A: -3.6.8; B: -2.5.7; C: -2.4.4; D: -2.3.2;
E: +1.2.1; F: +2.3.3; G: +2.4.5; H: +3.5.7.



1	2	3	4	5	6	<i>i</i>	ABCDEFGH	<i>k</i>	12345
1	2	3	4	5	6	1	00110210	1	10101
0	G	-C	F	-D	F	2	00110210	1	10101
0	-C	F	-D	F		3	00210002	2	00101
0	H	-D	H			4	01001201	3	21010
0	E	-B				5	10031000	4	00100
0	-A					6	11000201	5	21000

GS.98 (complement of GS.74), its binary signs and semiotic model SM:

A: -3.4.3; B: -2.4.5; C: -2.3.2; D: +1.2.1; E: +2.3.3; F: +2.4.5.



1	2	3	4	5	6	<i>i</i>	ABCDEF	<i>k</i>	12345
1	2	3	4	5	6	1	001121	1	01120
0	D	F	E	E	-C	2	003200	2	10001
0	-C	-C	-C	D		3	101021	3	10020
0	E	E	-A			4	111020	4	10100
0	B	-A				5	111020	4	10100
0	-A					6	301100	5	01000

Correspondence of vertex positions (orbits):

GS.74	1	2	3	4	5
GS.98	4	3	5	1	2

Distinguishing invariants and measures:

GS	E	N ^t	N ⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.74	8	6	5	8	3	4	3	1 ⁴ 2 ²	0.167	0.625	0.125	2.484	p
GS.98	7	5	6	6	3	3	3	1 ³ 2 ²	0.204	0.714	0.286	2.468	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

GS	Adj _n	1	2	3	4	5	6
GS.74	Supp _n	41	48	50	51	54	
	$k.k'(p)$	4.5 (-A)	2.4 (-D)	3.5 (-B)	1.2 (-C)	1.4 (-D)	-
	PF _n	1/7	1/7	1/7	2/7	2/7	
	Sub _n	84	88	89	92	101	102
	$k.k'(p)$	2.3 (H)	1.1 (G)	3.4 (E)	2.5 (H)	1.5 (F)	1.3 (F)
GS.98	Supp _n	60	64	65	68	77	78
	$k.k'(p)$	3.5 (-A)	4.4 (-B)	1.5 (-C)	2.3 (-C)	2.4 (-C)	4.5
	PF _n	1/8	1/8	1/8	1/8	2/8	2/8
	Sub _n	110	117	119	120	123	
	$k.k'(p)$	1.2 (D)	1.3 (F)	2.5 (D)	3.4 (E)	1.4 (E)	-
	PF _n	1/7	1/7	1/7	2/7	2/7	

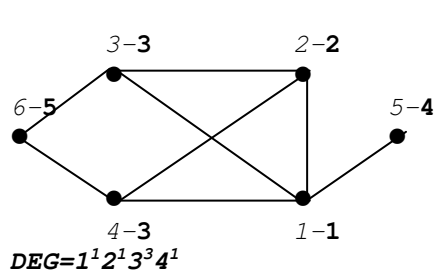
Graph-structures GS.75 (6.8.21) and GS.99 (6.7.21) (by Graph Atlas G140 and G119).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
Partial	5	11	1 ⁴ 2 ¹	0.129	1 ⁷ 2 ⁴	3.374	0.137	2	168

GS.75, its binary signs and semiotic model SM:

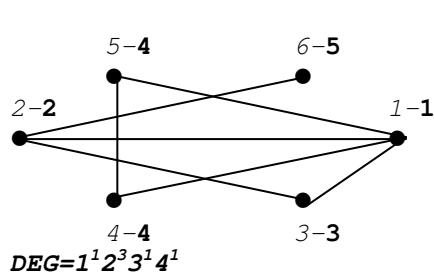
A: -3.5.5; B: -2.5.7; C: -2.4.4; D: -2.3.2;
E: +1.2.1; F: +2.3.3; G: +2.4.5; H: +3.5.7.



1	2	3	3	4	5					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCDEFGH			12345
0	G	F	F	E	-C	1	00101210	1	01210	
0	F	F	-D	-C		2	00110210	2	10200	
0	-B	-D	H			3	01010201	3	11001	
0	-D	H				4	01010201	3	11001	
0	-A					5	10031000	4	10000	
0						6	10200002	5	00200	

GS GS.99 (GS.75 complement of), its binary signs and semiotic model SM:

A: -3.4.3; B: -2.3.2; C: +1.2.1; D: +2.3.3.



1	2	3	4	4	5					<i>k</i>
1	2	3	4	5	6	<i>i</i>	ABCD			12345
0	D	D	D	D	-B	1	0104	1	01120	
0	D	-B	-B	C		2	0212	2	10101	
0	-B	-B	-B			3	0302	3	11000	
0	D	-A				4	1202	4	10010	
0	-A					5	1202	4	10010	
0						6	2210	5	01000	

Correspondence of vertex positions (orbits):

GS.75	1	2	3	4	5
GS.99	3	5	4	1	2

Distinguishing invariants and measures:

GS	E	N ^t	N	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.75	8	5	6	8	3	4	3	1 ² 2 ³	0.250	0.625	0.125	2.484	p
GS.99	7	6	5	4	3	3	3	1 ⁵ 2 ¹	0.102	0.857	0.143	2.468	p

Identifiers of adjacent structures and characteristics of morphisms F_n:

GS	Adj _n	1	2	3	4	5	6
GS.75	Supp _n	40	44	51	52	53	54
	k.k' (p)	1.5 (-C)	2.4 (-D)	2.5 (-C)	4.5 (-A)	3.3 (-B)	3.4 (-D)
	PF _n	1/7	1/7	1/7	1/7	1/7	2/7
	Sub _n	89	90	96	100	101	
	k.k' (p)	1.4 (E)	1.2 (G)	1.3 (F)	3.5 (H)	2.3 (F)	-
	PF _n	1/8	1/8	2/8	2/8	2/8	
GS.99	Supp _n	65	66	72	76	77	
	k.k' (p)	1.5 (-B)	3.5 (-B)	4.5 (-A)	2.4 (-B)	3.4 (-B)	-
	PF _n	1/8	1/8	2/8	2/8	2/8	
	Sub _n	109	113	120	121	122	123
	k.k' (p)	2.5 (C)	1.3 (D)	2.3 (D)	1.2 (D)	4.4 (D)	1.4 (D)
	PF _n	1/7	1/7	1/7	1/7	1/7	2/7

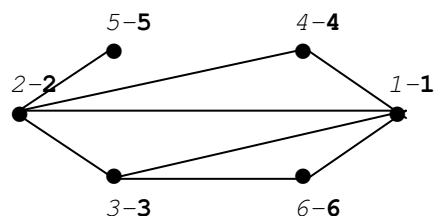
Graph-structures *GS.76* (6.8.22) and *GS.100* (6.7.22) (by Graph Atlas G137 and G113).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
0-symmetry	6	15	1 ⁶	0	1 ¹⁵	3.907	0	1	336

GS.76, its binary signs and semiotic model SM:

A: -3.5.6; B: -2.4.5; C: -2.3.2; D: +1.2.1; E: +2.3.3; F: +2.4.5.

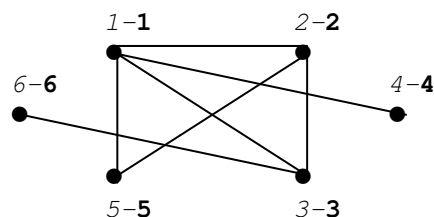


DEG=1¹2²3¹4²

1	2	3	4	5	6	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEF		123456
0	F	F	E	-C	E	1	001022	1	011101
0	E	E	D	-B		2	010121	2	101110
0	-B	-C	E			3	011021	3	110001
0	-C	-C				4	012020	4	110000
0	-A					5	103100	5	010000
0						6	111020	6	101000

GS.100 (complement of *GS.76*), its binary signs and semiotic model SM:

A: -3.5.6; B: -3.4.3; C: -2.4.5; D: -2.3.2; E: +1.2.1; F: +2.3.3; G: +2.4.5.



DEG=1²2¹3²4¹

1	2	3	4	5	6	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEFG		123456
0	G	F	E	F	-D	1	0001121	1	011110
0	F	-D	F	-D		2	0002021	2	101010
0	-D	-C	E			3	0011120	3	110001
0	-D	B				4	0103100	4	100000
0	-A					5	1011020	5	110000
0						6	1102100	6	001000

Correspondence of vertex positions (orbits):

<i>GS.76</i>	1	2	3	4	5	6
<i>GS.100</i>	4	6	5	2	1	3

Distinguishing invariants and measures:

<i>GS</i>	<i> E </i>	<i>N⁺</i>	<i>N⁻</i>	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.76</i>	8	8	7	6	3	3	3	1 ⁸	0	0.875	0.125	2.453	p
<i>GS.100</i>	7	7	8	7	3	3	3	1 ⁷	0	0.714	0.286	2.414	p

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

<i>GS</i>	<i>GS</i>	1	2	3	4	5	6	7	8
<i>GS.76</i>	<i>Supp_n</i>	37	45	49	50	51	53	54	-
	<i>k.k'</i>	3.5	4.5	1.5	2.6	4.6	3.4	5.6	-
	<i>PF_n</i>	1/7	1/7	1/7	1/7	1/7	1/7	1/7	-
	<i>Sub_n</i>	86	92	95	99	100	100	101	102
	<i>k.k'</i>	3.6	1.4	2.5	2.3	1.6	2.4	1.3	1.2
<i>GS.100</i>	<i>Supp_n</i>	62	68	71	75	76	76	77	78
	<i>k.k'</i>	3.5	2.4	1.6	5.6	2.6	3.4	4.5	4.6
	<i>PF_n</i>	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8
	<i>Sub_n</i>	106	114	118	119	120	122	123	
	<i>k.k'</i>	1.5	1.2	1.4	3.6	2.3	2.5	1.3	
	<i>PF_n</i>	1/7	1/7	1/7	1/7	1/7	1/7	1/7	

Comments: a) In the case of 0-symmetry can be happen that the number of adjacent structures is less than the number of binary positions. So induces here the adjacent substructure *GS.100* of *GS.76* by two binary positions. 1.6 and 2.4. and the adjacent superstructure *GS.76* of *GS.100* by binary positions 2.6 and 3.4. b) It is also third case in the system $\mathbb{G}^{|\mathbb{V}|=6}$, where the complements are also their adjacent structures.

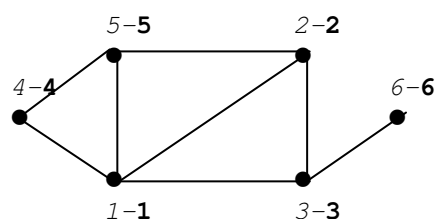
Graph-structures *GS.77* (6.8.23) and *GS.101* (6.7.23) (by Graph Atlas G139 and G118).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
0-symmetry	6	15	1 ⁶	0	1 ¹⁵	3.907	0	1	336

GS.77, its binary signs and semiotic model SM:

A:-3.5.6; B:-3.4.3; C:-2.4.5; D:-2.3.2; E:+1.2.1; F:+2.3.3; G:+2.4.5.

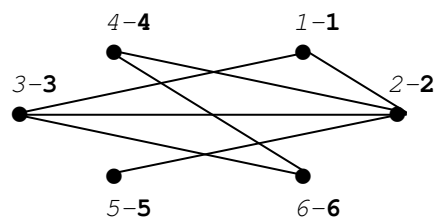


$DEG=1^1 2^2 3^3 4^1$

1	2	3	4	5	6						<i>k</i>	
1	2	3	4	5	6	<i>i</i>	ABCDEFG					123456
0	G	F	F	G	-D	1	0001022	1	011110			
0	F	-C	F	-D		2	0011021	2	101010			
0	-D	-C	E			3	0011120	3	110001			
0	F	-B				4	0111020	4	100010			
0	-A					5	1010021	5	110100			
0						6	1102100	6	001000			

GS.101 (complement of *GS.77*), its binary signs and semiotic model SM:

A:-3.5.5; B:-2.4.4; C:-2.3.2; D:+1.2.1; E:+2.3.3; F:+3.4.4.



$DEG=1^1 2^3 3^1 4^1$

1	2	3	4	5	6						<i>k</i>	
1	2	3	4	5	6	<i>i</i>	ABCDEF					123456
0	E	E	-C	-C	-C	1	003020	1	011000			
0	E	F	D	-B		2	010121	2	101110			
0	-B	-C	F			3	011021	3	110001			
0	-C	F				4	012002	4	010001			
0	-A					5	103100	5	010000			
0						6	111002	6	001100			

Correspondence of vertex positions (orbits):

<i>GS.77</i>	1	2	3	4	5	6
<i>GS.101</i>	5	1	6	3	4	2

Distinguishing invariants and measures:

<i>GS</i>	$ E $	N^+	N^-	<i>P</i>	<i>CL</i>	<i>G</i>	<i>DM</i>	<i>SEV</i>	<i>SE</i>	<i>TRA</i>	<i>BRA</i>	<i>HE</i>	<i>type</i>
<i>GS.77</i>	8	8	7	7	3	3	3	1 ⁸	0	0.875	0.125	2.484	p
<i>GS.101</i>	7	7	8	6	3	4	3	1 ⁷	0	0.429	0.143	2.468	p

Identifiers of adjacent structures and characteristics of morphisms F_n :

<i>GS</i>	<i>GS</i>	1	2	3	4	5	6	7	8
<i>GS.77</i>	<i>Supp_n</i>	43	45	46	47	51	53	54	-
	$k.k'$	2.4	2.6	4.6	1.6	3.4	3.5	5.6	-
	<i>PF_n</i>	1/7	1/7	1/7	1/7	1/7	1/7	1/7	-
	<i>Sub_n</i>	84	95	96	97	98	99	100	102
	$k.k'$	1.4	3.6	1.5	1.3	2.3	2.5	4.5	1.2
<i>GS.101</i>	<i>Supp_n</i>	60	71	72	73	74	75	76	78
	$k.k'$	3.5	2.6	4.5	5.6	1.6	1.4	3.4	1.5
	<i>PF_n</i>	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8
	<i>Sub_n</i>	112	114	115	116	120	122	123	-
	$k.k'$	1.3	1.2	2.3	2.5	3.6	4.6	2.4	-
	<i>PF_n</i>	1/7	1/7	1/7	1/7	1/7	1/7	1/7	-

Comments: a) *GS.77* and *GS.101* are the 0-symmetric structures in $\mathcal{G}^{V=6}$, where the 15 binary positions correspond to the 15 adjacent structures *Adj_n*. b) In the case of 0-symmetric structure form its s-vectors a custom adjacent matrix *E*.

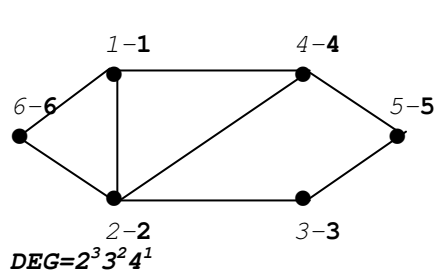
Graph-structures GS.78 (6.8.24) and GS.102 (6.7.24) (by Graph Atlas G147 and G122).

Common invariants and measures of the structure and its complement:

<i>Symmetry</i>	<i>K</i>	<i>N</i>	<i>SVV</i>	<i>SV</i>	<i>SRV</i>	<i>HR</i>	<i>SR</i>	<i>aut</i>	<i>3003PS</i>
0-symmetry	6	15	1 ⁶	0	1 ¹⁵	3.907	0	1	336

GS.78, its binary signs and semiotic model SM:

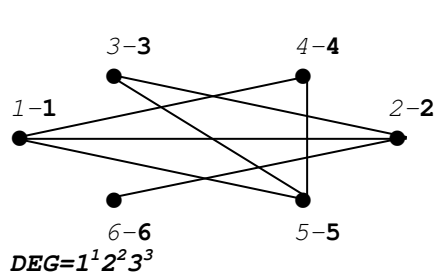
A:-3.6.8; B:-2.4.5; C:-2.4.4; D:-2.3.2; E:+2.3.3; F:+2.4.5; G:+3.4.4.



1	2	3	4	5	6	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEFG	FG	123456
0	F	-D	E	-D	E	1	0002210	1	010101
0	G	E	-C	E	2	0010211	2	101101	
0	-C	G	-D	E	3	0012002	3	010010	
0	G	-B	E	4	0110201	4	110010		
0	-A	E	5	1011002	5	001100			
0	6	1101200	6	110000					

GS.102 (complement of GS.78), its binary signs and semiotic model SM:

A:-3.5.5; B:-3.4.3; C:-2.4.4; D:-2.3.2; E:+1.2.1; F:+2.3.3; G:+3.4.4.



1	2	3	4	5	6	<i>k</i>			
1	2	3	4	5	6	<i>i</i>	ABCDEFG	FG	123456
0	G	-C	F	F	-D	1	0011021	1	010110
0	G	-D	-C	E	2	0011102	2	101001	
0	-D	G	-D	E	3	0012002	3	010010	
0	F	-B	E	4	0102020	4	100010		
0	-A	E	5	1010021	5	101100			
0	6	1102100	6	100000					

Correspondence of vertex positions (orbits):

GS.77	1	2	3	4	5	6
GS.101	5	1	6	3	4	2

Distinguishing invariants and measures:

GS	E	N ⁺	N ⁻	P	CL	G	DM	SEV	SE	TRA	BRA	HE	type
GS.78	8	8	7	7	3	4	3	1 ⁸	0	0.625	0	2.531	hp
GS.102	7	7	8	7	3	4	3	1 ⁷	0	0.429	0.143	2.503	p

Identifiers of adjacent structures and characteristics of morphisms *F_n*:

GS	Adj _n	1	2	3	4	5	6	7	8
GS.78	Supp _n	42	44	45	46	47	52	54	
	<i>k.k'</i>	4.6	1.3	3.4	3.6	2.5	5.6	1.5	-
	PF _n	1/7	1/7	1/7	1/7	1/7	1/7	1/7	
	Sub _n	83	91	94	96	97	98	100	101
	<i>k.k'</i>	1.2	1.4	2.4	2.6	2.3	4.5	3.5	1.6
GS.102	Supp _n	59	67	70	72	73	74	76	77
	<i>k.k'</i>	3.6	3.4	4.6	1.6	5.6	2.4	2.5	1.3
	PF _n	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8
	Sub _n	111	113	114	115	116	121	123	
	<i>k.k'</i>	1.4	3.5	4.5	1.5	2.6	1.2	2.3	-
	PF _n	1/7	1/7	1/7	1/7	1/7	1/7	1/7	

Comment: GS.78 and GS.102 are the fourth and last 0-symmetric structures in $\mathcal{G}^{VI=6}$, where to 15 binary positions correspond 15 adjacent structures Adj_n.