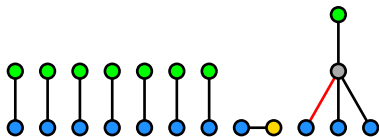
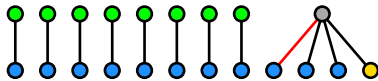


----- g,n: 4,8 ----- graphs: 40 ----- Euler Characteristic (without resolving relations):
 ----- $-2V_{1^8}-4V_{1^7} \boxtimes V_1+1V_{1^6} \boxtimes V_2+2V_{1^6} \boxtimes V_1 \boxtimes V_1+1V_{1^5} \boxtimes V_1 \boxtimes V_2$ -----
 ----- edges: 3 ----- graphs: 5 -----
 ----- A3 case ----- graphs: 4 -----

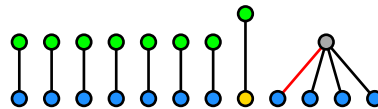
ID: 29 $V_{1^7} \boxtimes V_1$
 \mapsto ID 78



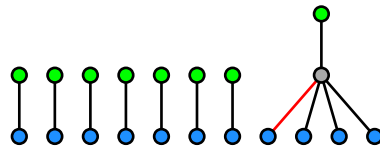
ID: 30 V_{1^8}
 \mapsto ID 73



ID: 31 $V_{1^7} \boxtimes V_1$
 \mapsto ID 77

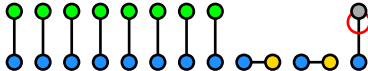


ID: 32 $V_{1^7} \boxtimes V_1$
 \mapsto ID 61



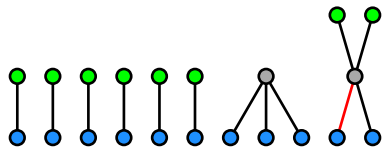
----- B,Birr cases without weight 11 relations graphs: 1 -----

ID: 53 V_1^8
 \mapsto ID 100

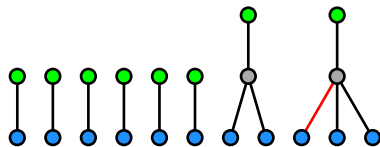


----- edges: 4 graphs: 21 -----
 ----- A3 case graphs: 5 -----

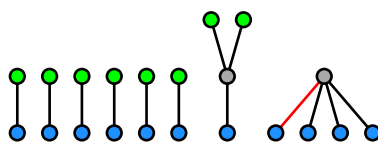
ID: 57 $V_{1^6} \boxtimes V_2$
 \mapsto ID 113



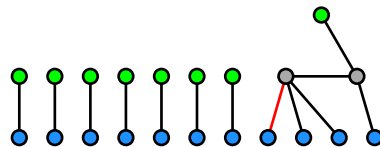
ID: 58 $V_{1^6} \boxtimes V_1 \boxtimes V_1$
 \mapsto ID 115



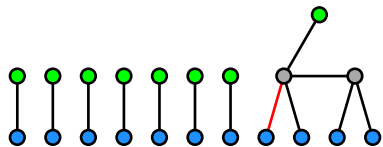
ID: 59 $V_{1^6} \boxtimes V_2$
 \mapsto ID 114



ID: 60 $V_{1^7} \boxtimes V_1$
 \mapsto ID 110



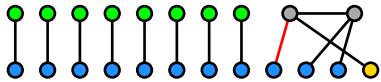
ID: 61 $V_{1^7} \boxtimes V_1$
 \leftarrow ID 32



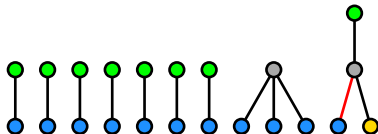
----- A2 case with weight 13 relations

relation groups: 2 -----

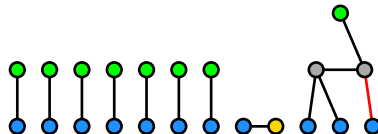
ID: 73 V_{18}
 \leftarrow ID 30



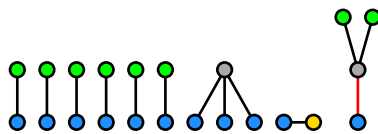
ID: 70 $V_{17} \boxtimes V_1$



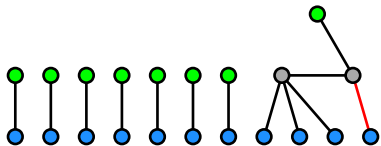
ID: 71 $V_{17} \boxtimes V_1$
redundant



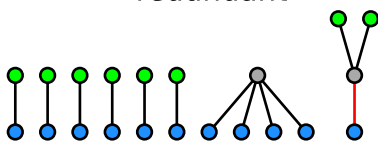
ID: 69 $V_{16} \boxtimes V_2$
redundant



ID: 74 $V_{17} \boxtimes V_1$
 \mapsto ID 109

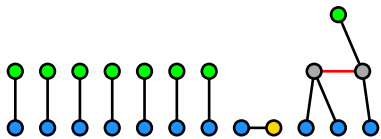


ID: 72 $V_{16} \boxtimes V_2$
redundant

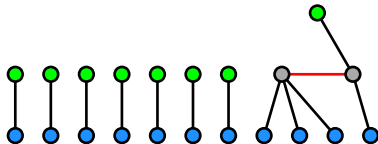


----- B,Birr cases without weight 11 relations graphs: 5 -----

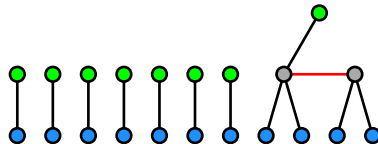
ID: 78 $V_{1^7} \boxtimes V_1$
 \leftrightarrow ID 29



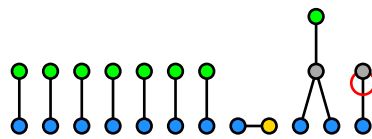
ID: 80 $V_{1^7} \boxtimes V_1$
 \mapsto ID 116



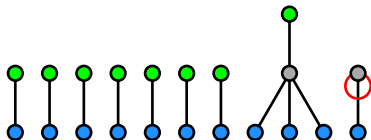
ID: 81 $V_{1^7} \boxtimes V_1$
 \mapsto ID 117



ID: 98 $V_{1^7} \boxtimes V_1$



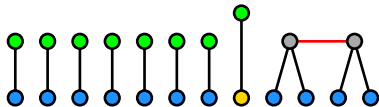
ID: 99 $V_{1^7} \boxtimes V_1$
 \mapsto ID 127



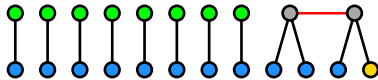
----- B,Birr cases with weight 11 relations

relation groups: 2 -----

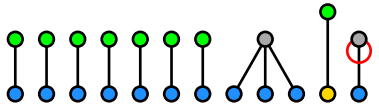
ID: 77 $V_1^7 \boxtimes V_1$
← ID 31



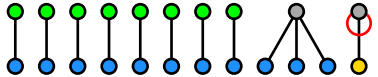
ID: 79 V_1^8
redundant



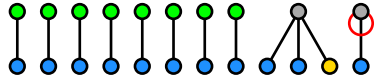
ID: 97 $V_1^7 \boxtimes V_1$



ID: 96 V_1^8
redundant

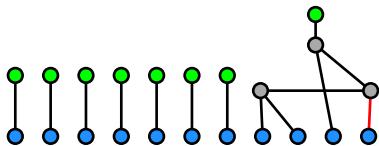


ID: 100 V_1^8
← ID 53

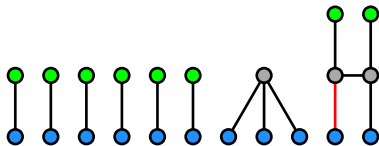


----- edges: 5 graphs: 14 -----
 ----- A2 case with weight 13 relations relation groups: 2 -----

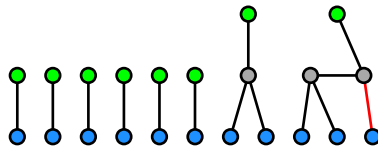
ID: 110 $V_1^7 \boxtimes V_1$
 \leftrightarrow ID 60



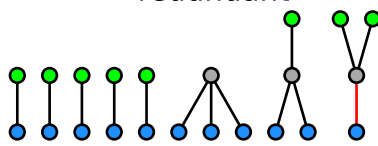
ID: 106 $V_1^6 \boxtimes V_1 \boxtimes V_1$



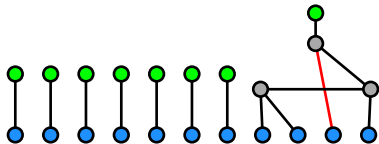
ID: 108 $V_1^6 \boxtimes V_1 \boxtimes V_1$
 redundant



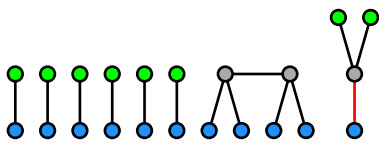
ID: 105 $V_1^5 \boxtimes V_1 \boxtimes V_2$
 redundant



ID: 109 $V_1^7 \boxtimes V_1$
 \leftrightarrow ID 74

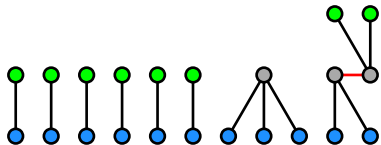


ID: 107 $V_1^6 \boxtimes V_2$
 redundant

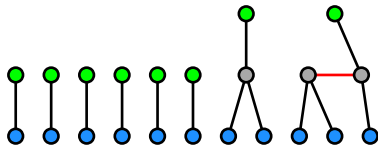


----- B,Birr cases without weight 11 relations graphs: 8 -----

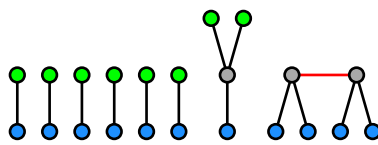
ID: 113 $V_{1^6} \boxtimes V_2$
 \leftarrow ID 57



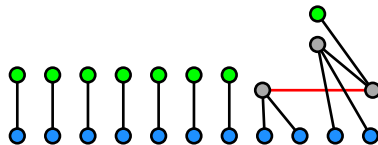
ID: 115 $V_{1^6} \boxtimes V_1 \boxtimes V_1$
 \leftarrow ID 58



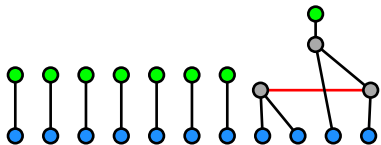
ID: 114 $V_{1^6} \boxtimes V_2$
 \leftarrow ID 59



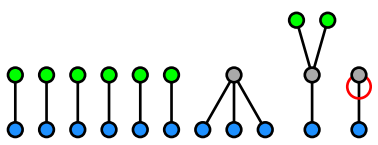
ID: 116 $V_{1^7} \boxtimes V_1$
 \leftarrow ID 80



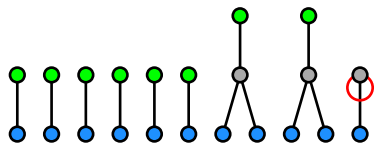
ID: 117 $V_{1^7} \boxtimes V_1$
 \leftarrow ID 81



ID: 125 $V_{1^6} \boxtimes V_2$



ID: 126 $V_{1^6} \boxtimes V_2$



ID: 127 $V_{1^7} \boxtimes V_1$
 \leftarrow ID 99

