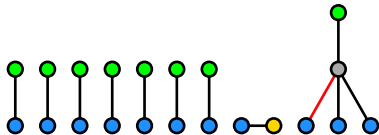
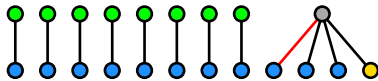


----- g,n: 4,8 graphs: 40 eliminated: 34 ----- Euler Characteristic (without resolving relations):
 ----- $-2V_1^8 - 4V_1^7 \boxtimes V_1 + 1V_1^6 \boxtimes V_2 + 2V_1^6 \boxtimes V_1 \boxtimes V_1 + 1V_1^5 \boxtimes V_1 \boxtimes V_2$ -----
 ----- edges: 3 graphs: 5 -----
 ----- A3 case graphs: 4 -----

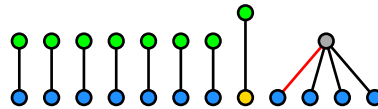
ID: 29 $V_1^7 \boxtimes V_1$
 \mapsto ID 78



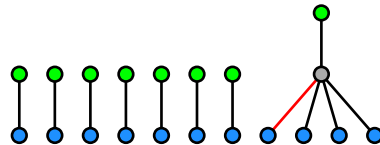
ID: 30 V_1^8
 \mapsto ID 73



ID: 31 $V_1^7 \boxtimes V_1$
 \mapsto ID 77

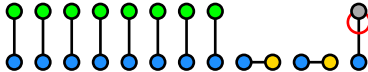


ID: 32 $V_1^7 \boxtimes V_1$
 \mapsto ID 61



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

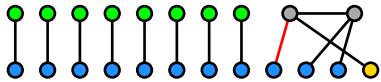
ID: 53 V_1^8
 \mapsto ID 100



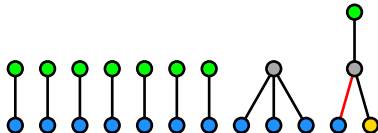
----- A2 case with weight 13 relations

relation groups: 2 -----

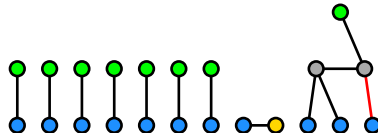
ID: 73 V_{1^8}
 \leftarrow ID 30



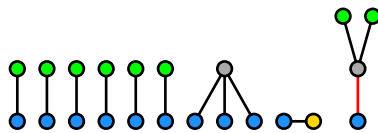
ID: 70 $V_{1^7} \boxtimes V_1$



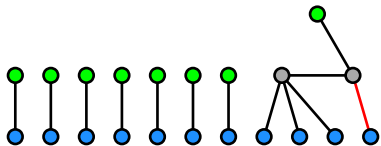
ID: 71 $V_{1^7} \boxtimes V_1$
Redundant



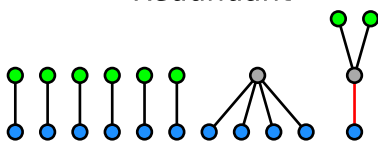
ID: 69 $V_{1^6} \boxtimes V_2$
Redundant



ID: 74 $V_{1^7} \boxtimes V_1$
 \mapsto ID 109

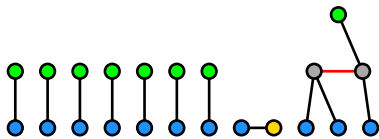


ID: 72 $V_{1^6} \boxtimes V_2$
Redundant

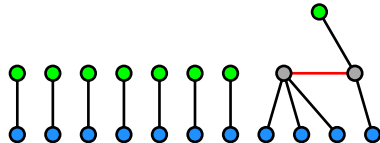


----- B,Birr cases without weight 11 relations graphs: 5 -----

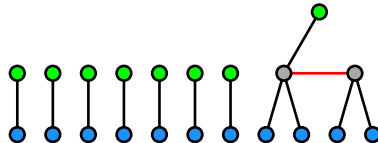
ID: 78 $V_{1^7} \boxtimes V_1$
 \leftarrow ID 29



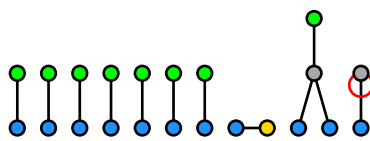
ID: 80 $V_{1^7} \boxtimes V_1$
 \mapsto ID 116



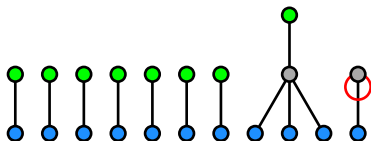
ID: 81 $V_{1^7} \boxtimes V_1$
 \mapsto ID 117



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



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

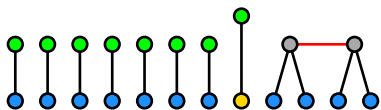


----- B,Birr cases with weight 11 relations

relation groups: 2 -----

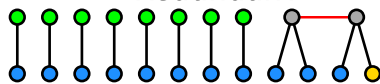
ID: 77 $V_1^7 \boxtimes V_1$

← ID 31

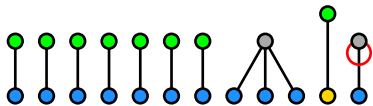


ID: 79 V_1^8

Redundant

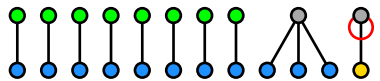


ID: 97 $V_1^7 \boxtimes V_1$



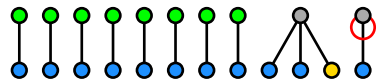
ID: 96 V_1^8

Redundant



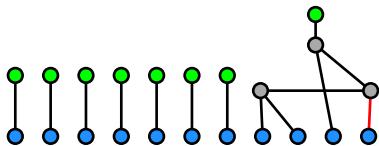
ID: 100 V_1^8

← ID 53

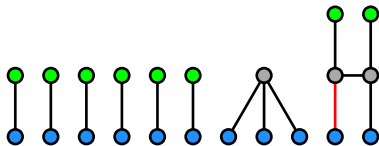


----- edges: 5 graphs: 14 -----
 ----- A2 case with weight 13 relations relation groups: 2 -----

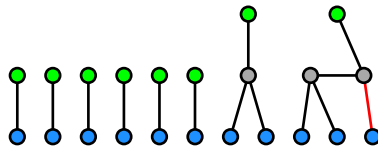
ID: 110 $V_{1^7} \boxtimes V_1$
 \leftrightarrow ID 60



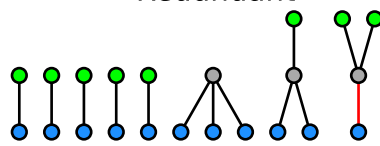
ID: 106 $V_{1^6} \boxtimes V_1 \boxtimes V_1$



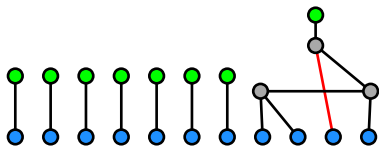
ID: 108 $V_{1^6} \boxtimes V_1 \boxtimes V_1$
 Redundant



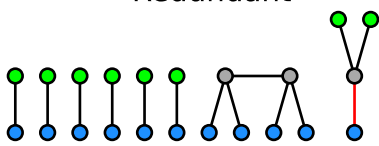
ID: 105 $V_{1^5} \boxtimes V_1 \boxtimes V_2$
 Redundant



ID: 109 $V_{1^7} \boxtimes V_1$
 \leftrightarrow ID 74

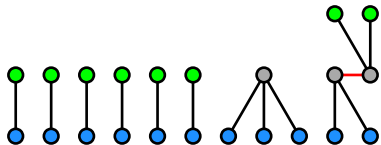


ID: 107 $V_{1^6} \boxtimes V_2$
 Redundant

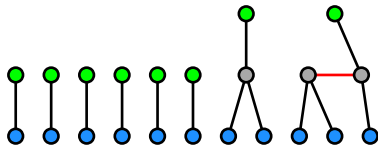


----- B,Birr cases without weight 11 relations graphs: 8 -----

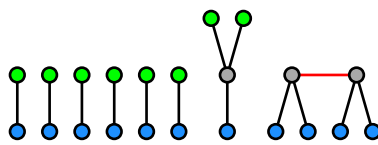
ID: 113 $V_{1^6} \boxtimes V_2$
 \leftarrow ID 57



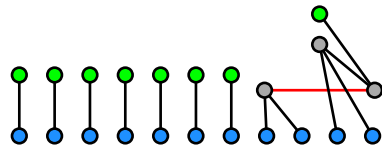
ID: 115 $V_{1^6} \boxtimes V_1 \boxtimes V_1$
 \leftarrow ID 58



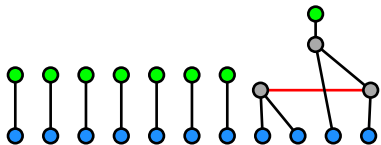
ID: 114 $V_{1^6} \boxtimes V_2$
 \leftarrow ID 59



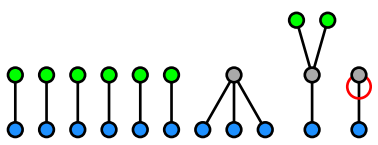
ID: 116 $V_{1^7} \boxtimes V_1$
 \leftarrow ID 80



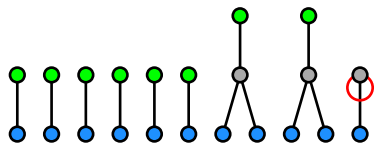
ID: 117 $V_{1^7} \boxtimes V_1$
 \leftarrow ID 81



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

