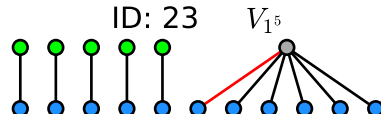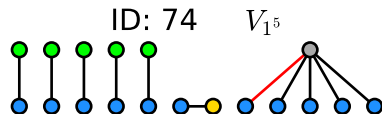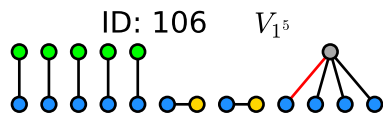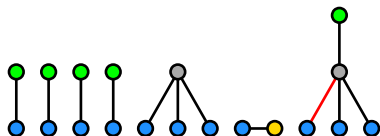---------- g,n: 6,5   graphs: 84   ---------- Euler Characteristic (without resolving relations):

--------- $2V_{1^5} + 4V_{1^4} \boxtimes V_1 - 1V_{1^3} \boxtimes V_2 - 2V_{1^3} \boxtimes V_1 \boxtimes V_1 - 1V_{1^2} \boxtimes V_1 \boxtimes V_2$ ---------

--------- edges: 5   graphs: 3   ---------

------- A3 case   graphs: 3   -------

ID: 106 V_{1^5}

ID: 74 V_{1^5}
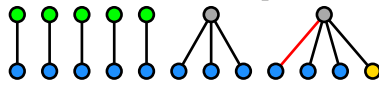
ID: 23 V_{1^5}

---------- edges: 6   graphs: 19   ----------
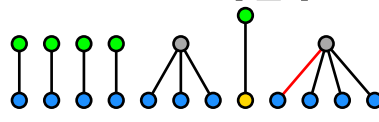------- A3 case   graphs: 12   -------

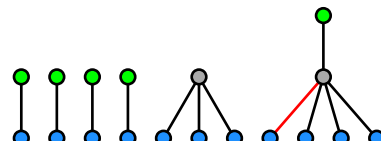ID: 75 $V_{1^4} \boxtimes V_1$

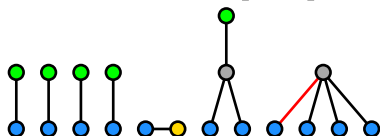ID: 24 V_{1^5}

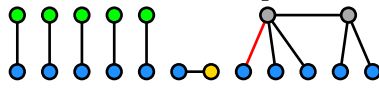ID: 53 $V_{1^4} \boxtimes V_1$
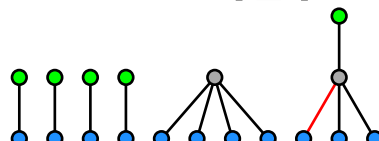
ID: 25 $V_{1^4} \boxtimes V_1$
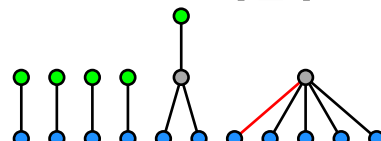
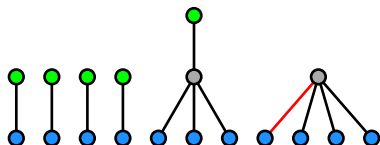ID: 108 $V_{1^4} \boxtimes V_1$

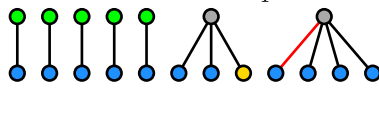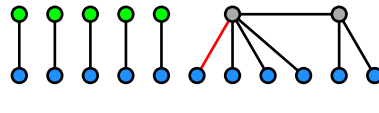ID: 76 V_{1^5}

ID: 83 $V_{1^4} \boxtimes V_1$

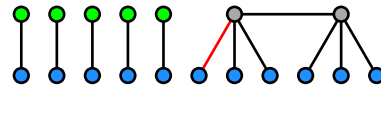ID: 90 $V_{1^4} \boxtimes V_1$
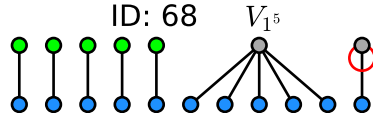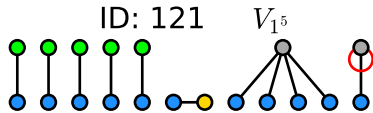
ID: 56 $V_{1^4} \boxtimes V_1$
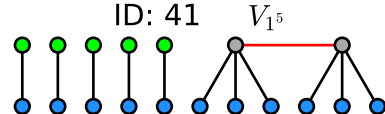
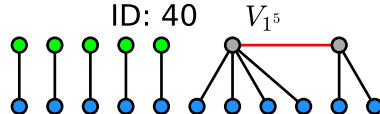ID: 55 V_{1^5}

ID: 27 V_{1^5}

ID: 28 V_{1^5}

------- B,Birr cases without weight 11 relations   graphs: 7 -------

ID: 113 V_{1^5}

ID: 79 V_{1^5}

ID: 40 V_{1^5}

ID: 41 V_{1^5}

ID: 120 V_{1^5}

ID: 121 V_{1^5}
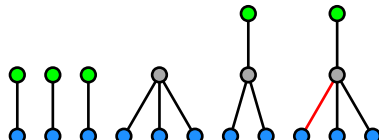
ID: 68 V_{1^5}
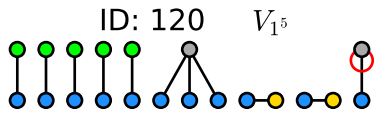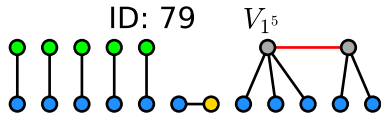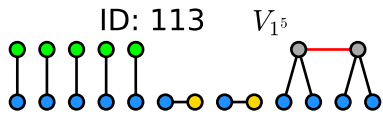
--------- edges: 7 graphs: 40 ---------
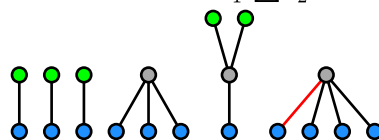------- A3 case graphs: 10 -------
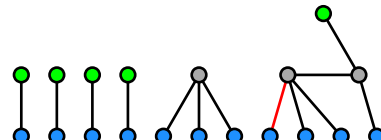
ID: 26 $V_{1^3} \boxtimes V_2$

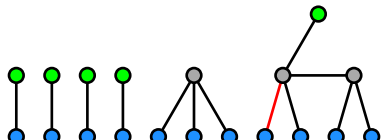ID: 91 $V_{1^3} \boxtimes V_1 \boxtimes V_1$
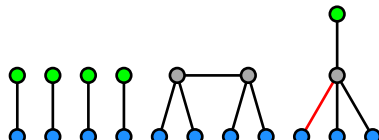
ID: 57 $V_{1^3} \boxtimes V_2$
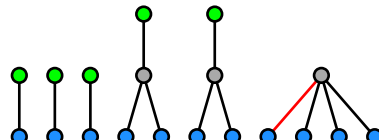
ID: 29 $V_{1^4} \boxtimes V_1$
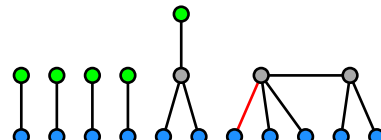
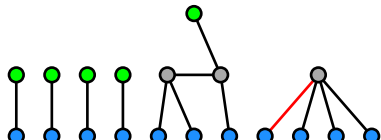ID: 30 $V_{1^4} \boxtimes V_1$

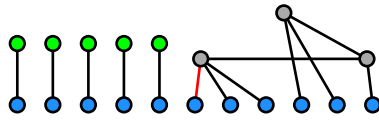ID: 99 $V_{1^4} \boxtimes V_1$

ID: 111 $V_{1^3} \boxtimes V_2$

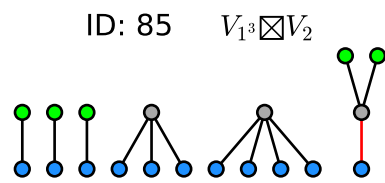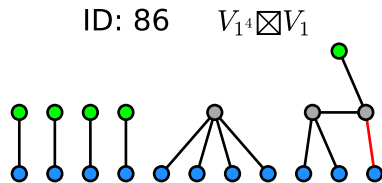ID: 92 $V_{1^4} \boxtimes V_1$
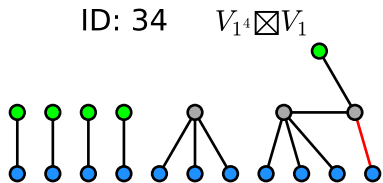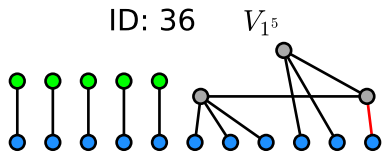
ID: 59 $V_{1^4} \boxtimes V_1$

ID: 31 V_{1^5}

------- A2 case with weight 13 relations   relation groups: 2 -------
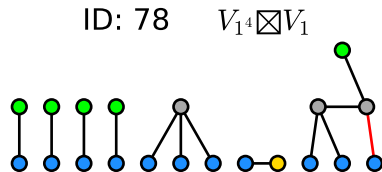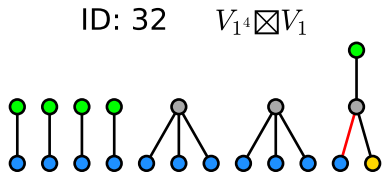
ID: 33 V_{1^5}

ID: 32 $V_{1^4} \boxtimes V_1$

ID: 78 $V_{1^4} \boxtimes V_1$

ID: 77 $V_{1^3} \boxtimes V_2$

ID: 36 V_{1^5}

ID: 34 $V_{1^4} \boxtimes V_1$

ID: 86 $V_{1^4} \boxtimes V_1$

ID: 85 $V_{1^3} \boxtimes V_2$
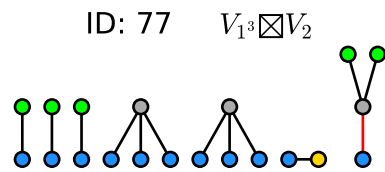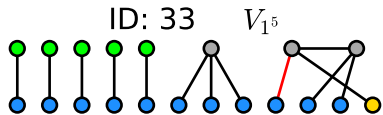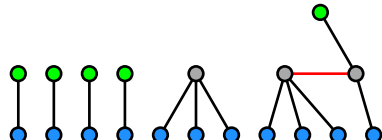
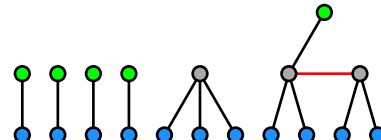------- B,Birr cases without weight 11 relations   graphs: 16 -------
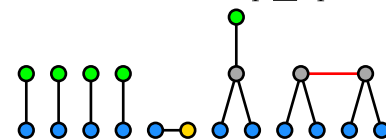
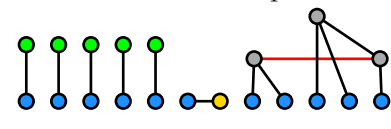ID: 80 $V_{1^4} \boxtimes V_1$
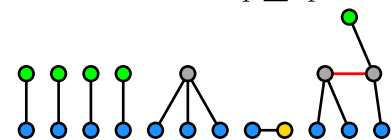
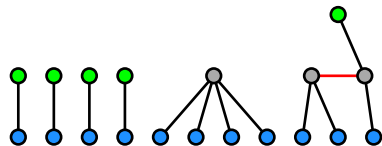ID: 43 $V_{1^4} \boxtimes V_1$

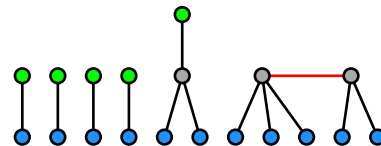ID: 44 $V_{1^4} \boxtimes V_1$

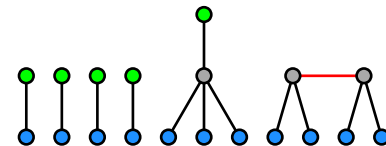ID: 115 $V_{1^4} \boxtimes V_1$
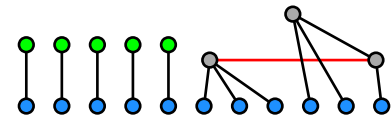
ID: 81 V_{1^5}
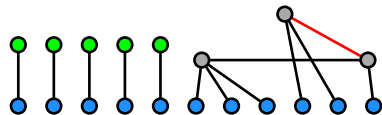
ID: 88 $V_{1^4} \boxtimes V_1$

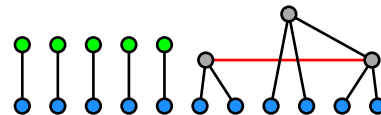ID: 95 $V_{1^4} \boxtimes V_1$
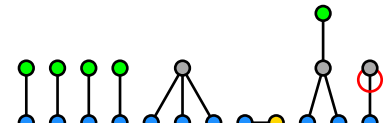
ID: 63 $V_{1^4} \boxtimes V_1$
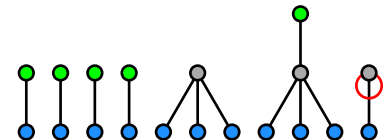
ID: 46 V_{1^5}

ID: 47 V_{1^5}
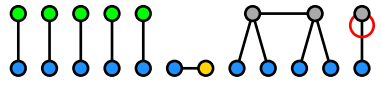
ID: 48 V_{1^5}

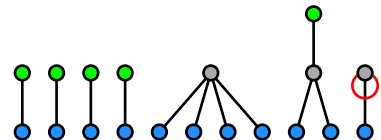ID: 122 $V_{1^4} \boxtimes V_1$

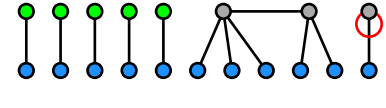ID: 70 $V_{1^4} \boxtimes V_1$

ID: 123 V_{1^5}

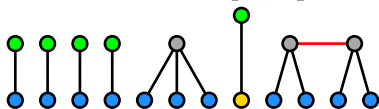ID: 125 $V_{1^4} \boxtimes V_1$

ID: 72 V_{1^5}

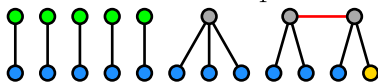------- B,Birr cases with weight 11 relations   relation groups: 2 -------
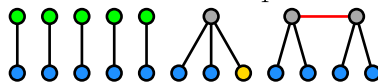
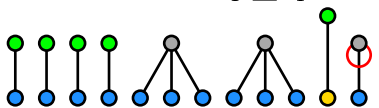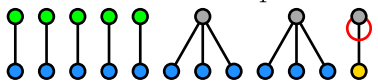ID: 60 $V_1{}^4 \boxtimes V_1$

ID: 42 $V_1{}^5$

ID: 62 $V_1{}^5$

ID: 67 $V_1{}^4 \boxtimes V_1$

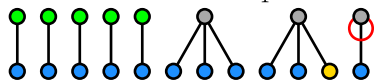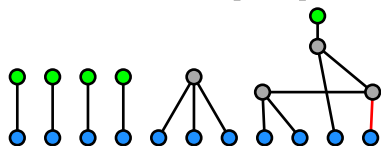ID: 52 $V_1{}^5$

ID: 69 $V_1{}^5$

--------- edges: 8   graphs: 22   ---------
------- A2 case with weight 13 relations   relation groups: 2 -------
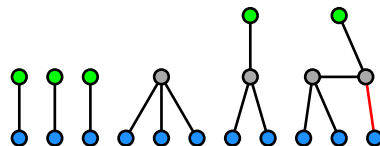
ID: 38 $V_{1^4} \boxtimes V_1$

ID: 35 $V_{1^3} \boxtimes V_1 \boxtimes V_1$
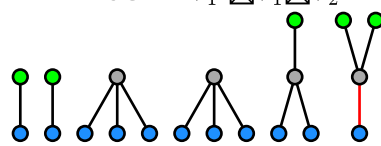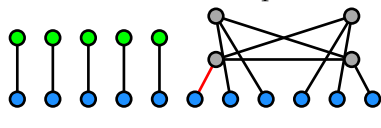
ID: 94 $V_{1^3} \boxtimes V_1 \boxtimes V_1$

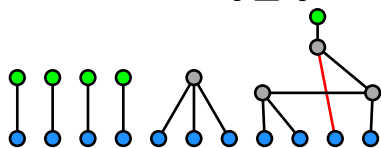ID: 93 $V_{1^2} \boxtimes V_1 \boxtimes V_2$
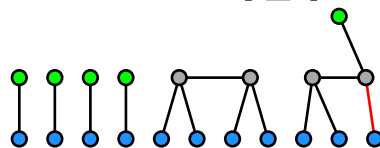
ID: 39 V_{1^5}

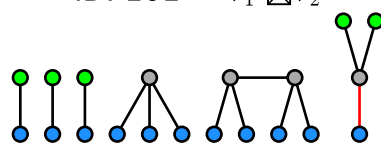ID: 37 $V_{1^4} \boxtimes V_1$

ID: 102 $V_{1^4} \boxtimes V_1$
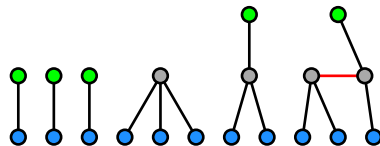
ID: 101 $V_{1^3} \boxtimes V_2$

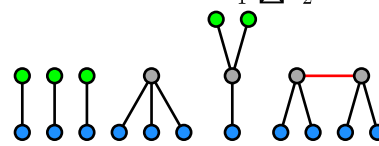------- B,Birr cases without weight 11 relations   graphs: 14 -------

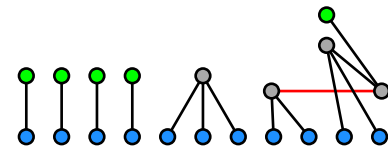ID: 45 $V_{1^3} \boxtimes V_2$

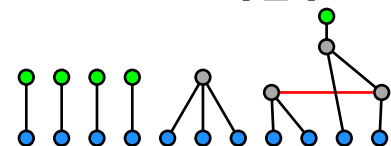ID: 96 $V_{1^3} \boxtimes V_1 \boxtimes V_1$
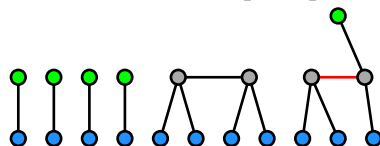
ID: 64 $V_{1^3} \boxtimes V_2$

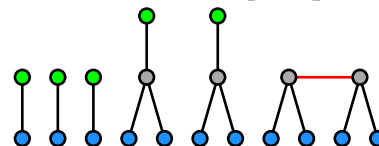ID: 49 $V_{1^4} \boxtimes V_1$

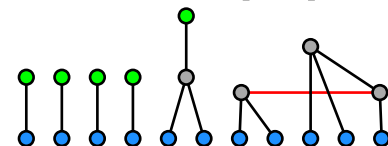ID: 50 $V_{1^4} \boxtimes V_1$

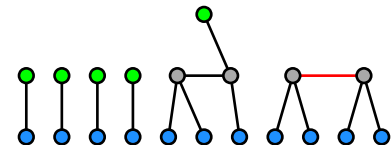ID: 104 $V_{1^4} \boxtimes V_1$
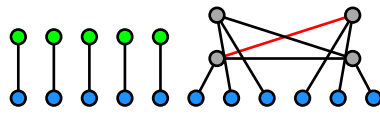
ID: 118 $V_{1^3} \boxtimes V_2$
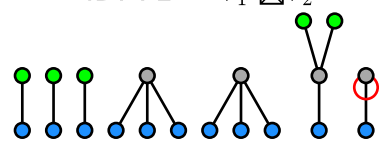
ID: 97 $V_{1^4} \boxtimes V_1$
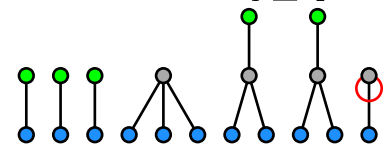
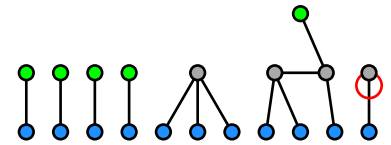ID: 66 $V_{1^4} \boxtimes V_1$

ID: 51 V_{1^5}

ID: 71 $V_{1^3} \boxtimes V_2$

ID: 127 $V_{1^3} \boxtimes V_2$

ID: 73 $V_{1^4} \boxtimes V_1$

ID: 128 $V_{1^4} \boxtimes V_1$