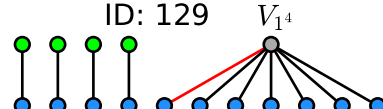
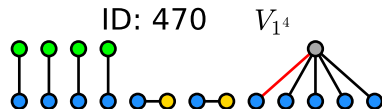
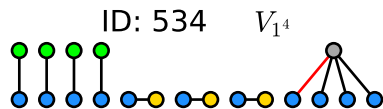
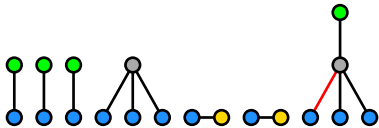


----- g,n: 7,4      graphs: 393      ----- Euler Characteristic (without resolving relations):  
 -----  $-8V_1^4 - 1V_1^3 \boxtimes V_1 + 1V_1^2 \boxtimes V_2 - 1V_1^2 \boxtimes V_1^2 + 4V_1^2 \boxtimes V_1 \boxtimes V_1 - 3V_1 \boxtimes V_1 \boxtimes V_2 - 1V_1 \boxtimes V_1 \boxtimes V_1 \boxtimes V_1$  -----  
                                  edges: 6      graphs: 4      -----  
                                  A3 case      graphs: 4      -----



----- edges: 7      graphs: 38      -----  
 ----- A3 case      graphs: 28      -----

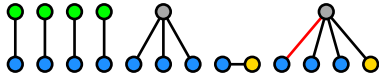
ID: 471  $V_1^3 \boxtimes V_1$



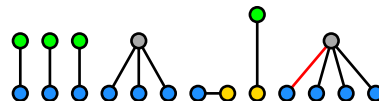
ID: 229  $V_1^4$



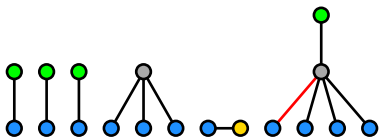
ID: 275  $V_1^4$



ID: 394  $V_1^3 \boxtimes V_1$



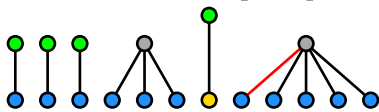
ID: 276  $V_1^3 \boxtimes V_1$



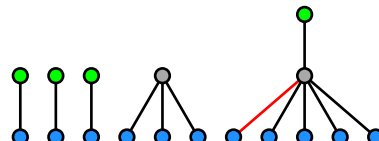
ID: 130  $V_1^4$



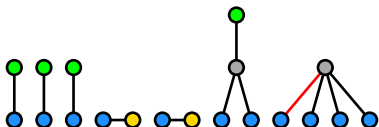
ID: 564  $V_1^3 \boxtimes V_1$



ID: 131  $V_1^3 \boxtimes V_1$



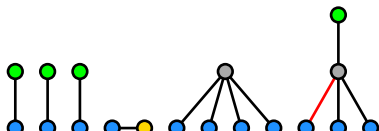
ID: 536  $V_1^3 \boxtimes V_1$



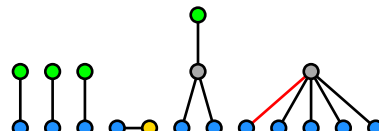
ID: 472  $V_1^4$



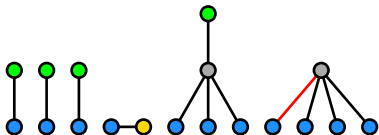
ID: 479  $V_1^3 \boxtimes V_1$



ID: 486  $V_1^3 \boxtimes V_1$



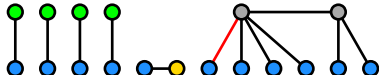
ID: 397  $V_1^3 \boxtimes V_1$



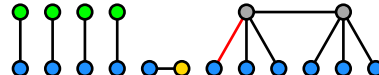
ID: 396  $V_1^4$



ID: 278  $V_1^4$



ID: 279  $V_1^4$



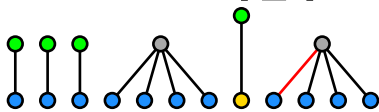
ID: 231  $V_1^4$



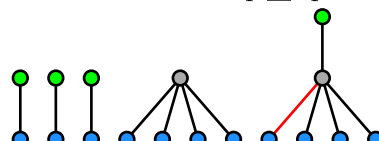
ID: 305  $V_1^4$



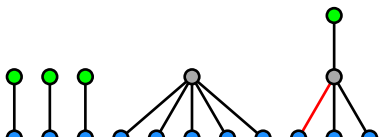
ID: 401  $V_1^3 \boxtimes V_1$



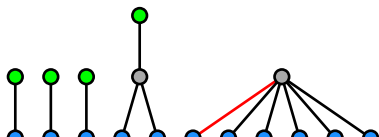
ID: 306  $V_1^3 \boxtimes V_1$



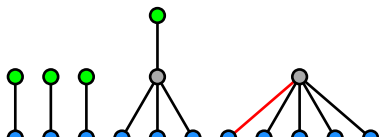
ID: 572  $V_1^3 \boxtimes V_1$



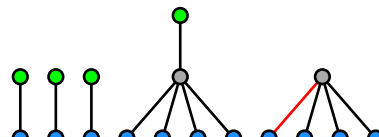
ID: 334  $V_1^3 \boxtimes V_1$



ID: 567  $V_1^3 \boxtimes V_1$



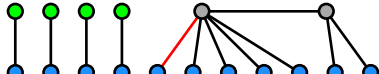
ID: 232  $V_1^3 \boxtimes V_1$



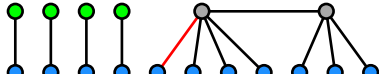
ID: 566  $V_1^4$



ID: 135  $V_1^4$



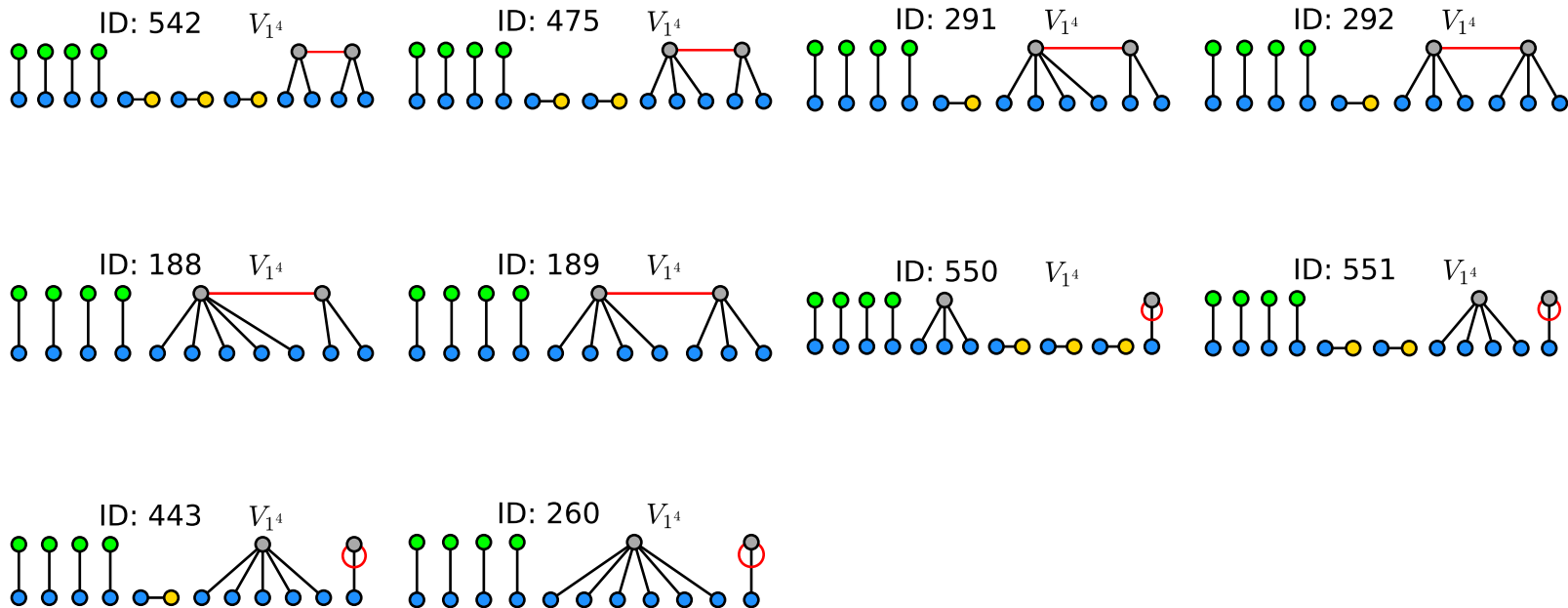
ID: 136  $V_1^4$



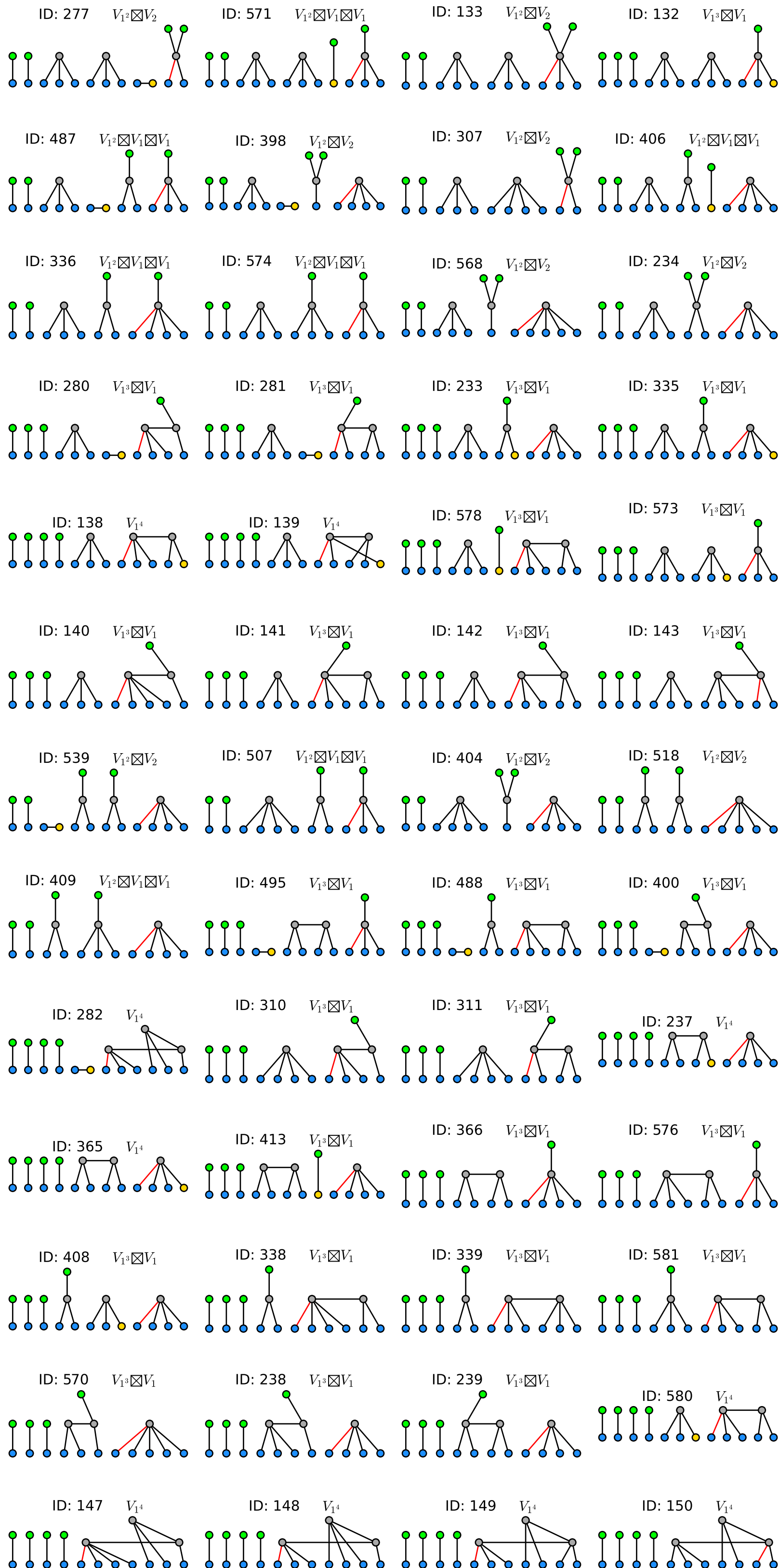
ID: 137  $V_1^4$



----- B,Birr cases without weight 11 relations      graphs: 10 -----

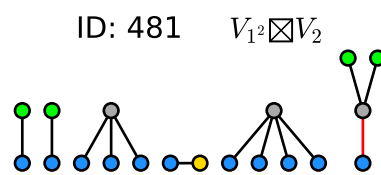
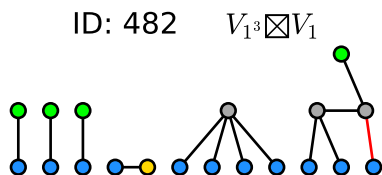
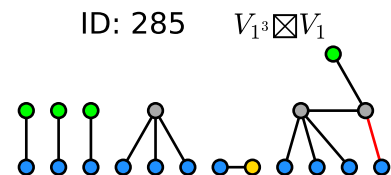
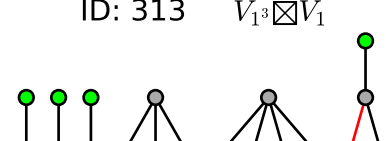
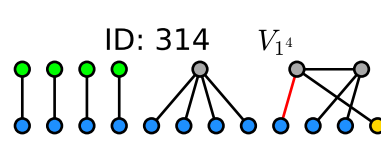
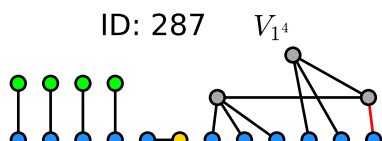
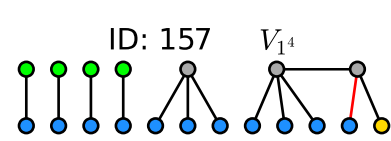
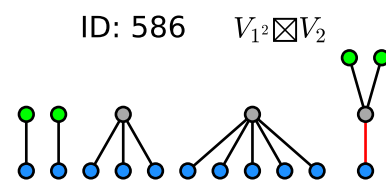
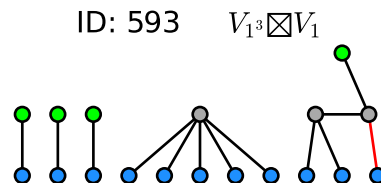
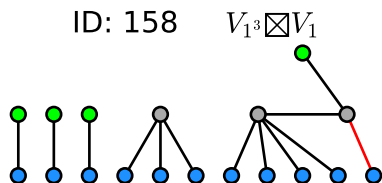
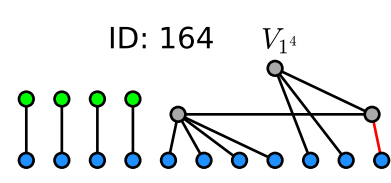
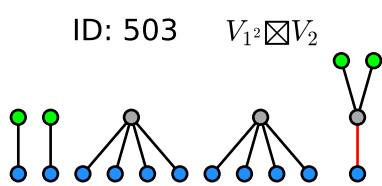
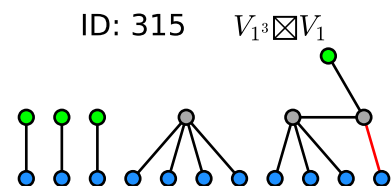
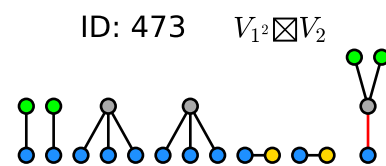
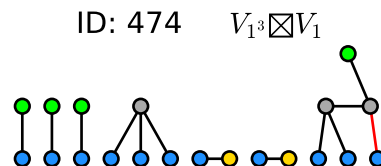
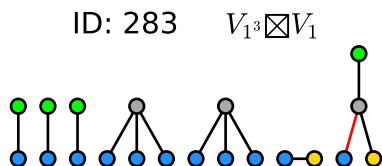
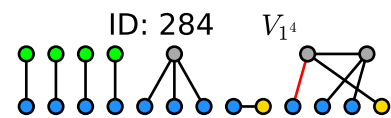


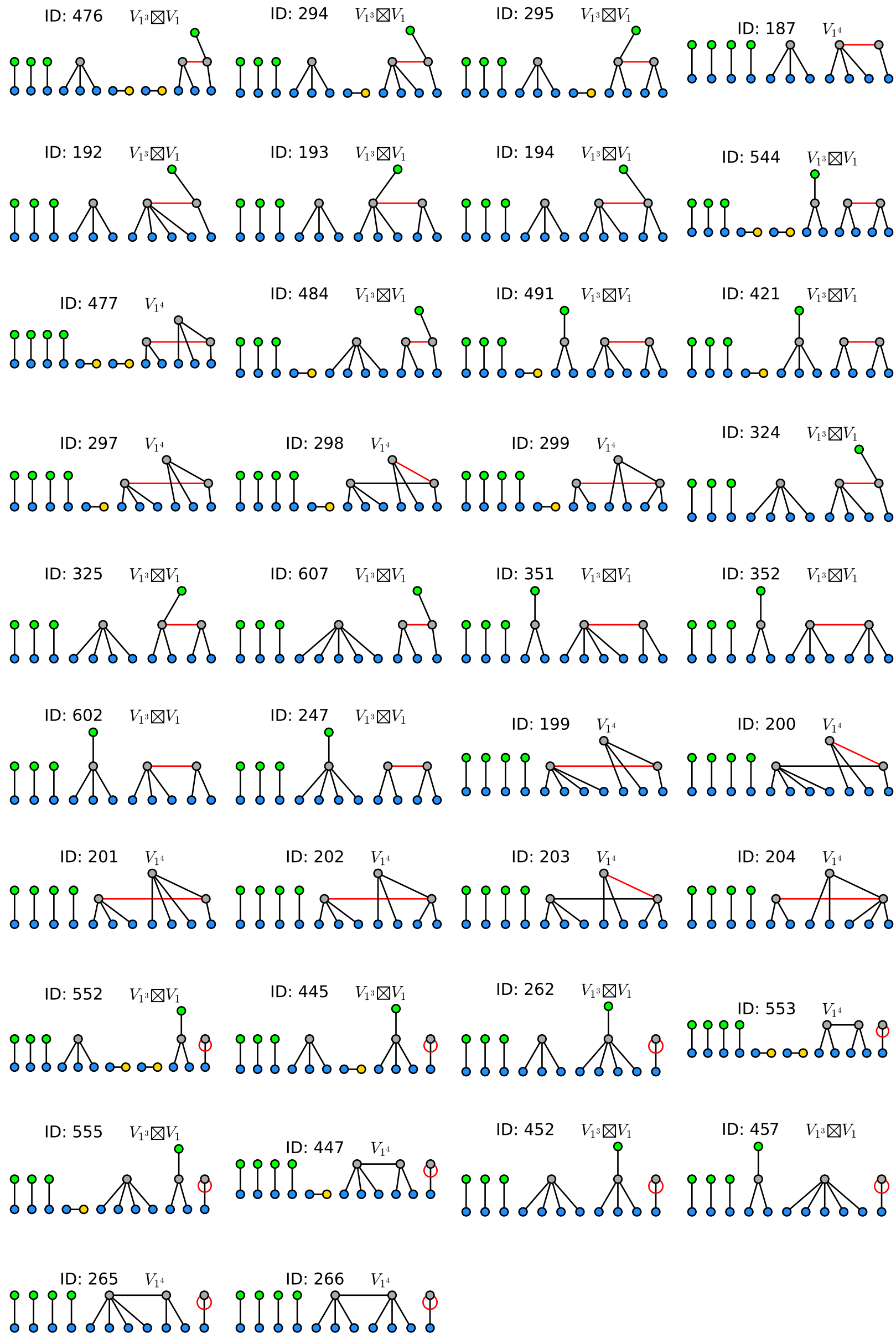
----- edges: 8      graphs: 126      -----  
 ----- A3 case      graphs: 52      -----



----- A2 case with weight 13 relations

relation groups: 4 -----



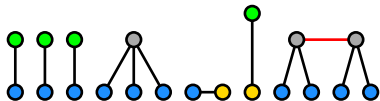


----- B,Birr cases with weight 11 relations

relation groups: 5 -----

ID: 418

$V_1^3 \boxtimes V_1$



ID: 244

$V_1^4$



ID: 293

$V_1^4$



ID: 420

$V_1^4$



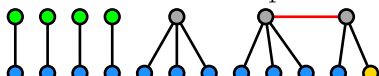
ID: 599

$V_1^3 \boxtimes V_1$



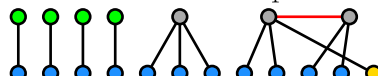
ID: 190

$V_1^4$



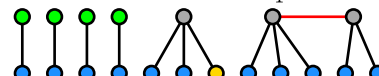
ID: 191

$V_1^4$



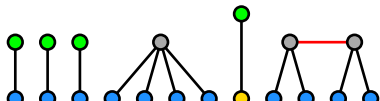
ID: 601

$V_1^4$



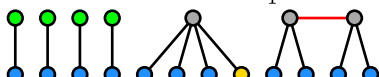
ID: 425

$V_1^3 \boxtimes V_1$



ID: 246

$V_1^4$



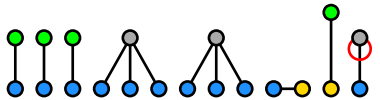
ID: 323

$V_1^4$



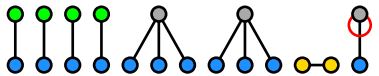
ID: 442

$V_1^3 \boxtimes V_1$



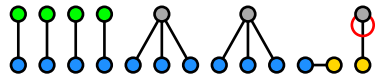
ID: 259

$V_1^4$



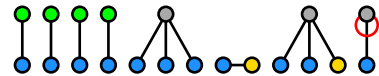
ID: 303

$V_1^4$



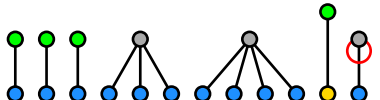
ID: 444

$V_1^4$



ID: 449

$V_1^3 \boxtimes V_1$



ID: 261

$V_1^4$



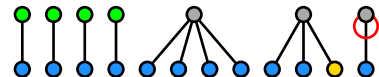
ID: 333

$V_1^4$



ID: 451

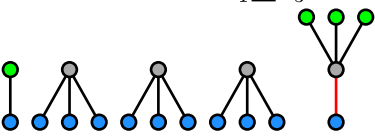
$V_1^4$



----- edges: 9      graphs: 153      -----  
 ----- A3 case      graphs: 31      -----

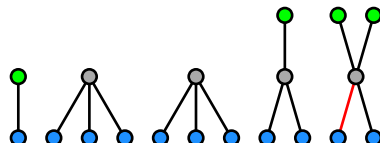
ID: 134

$V_1 \boxtimes V_3$



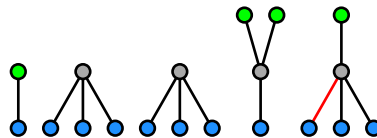
ID: 337

$V_1 \boxtimes V_1 \boxtimes V_2$



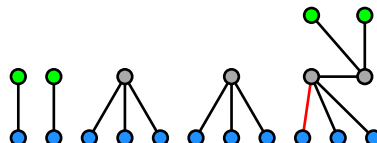
ID: 575

$V_1 \boxtimes V_2 \boxtimes V_1$



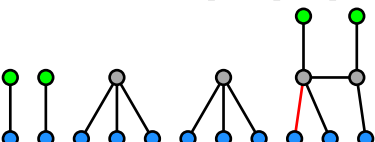
ID: 144

$V_1^2 \boxtimes V_2$



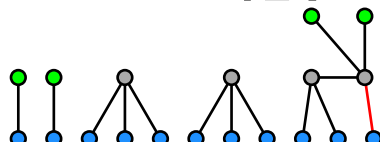
ID: 145

$V_1^2 \boxtimes V_1 \boxtimes V_1$



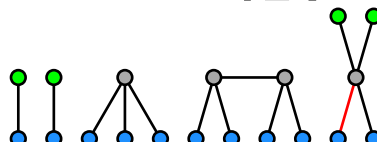
ID: 146

$V_1^2 \boxtimes V_2$



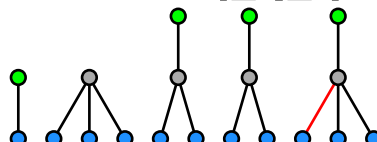
ID: 367

$V_1^2 \boxtimes V_2$



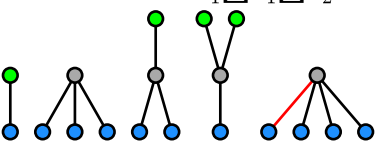
ID: 519

$V_1 \boxtimes V_2 \boxtimes V_1$



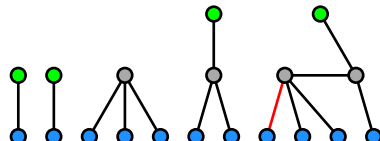
ID: 410

$V_1 \boxtimes V_1 \boxtimes V_2$



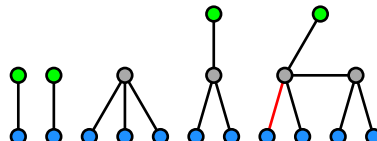
ID: 340

$V_1^2 \boxtimes V_1 \boxtimes V_1$



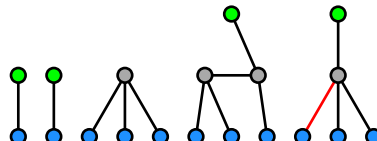
ID: 341

$V_1^2 \boxtimes V_1 \boxtimes V_1$



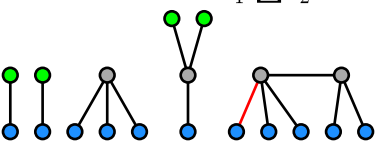
ID: 577

$V_1^2 \boxtimes V_1 \boxtimes V_1$



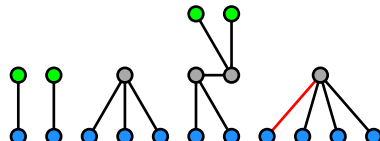
ID: 582

$V_1^2 \boxtimes V_2$



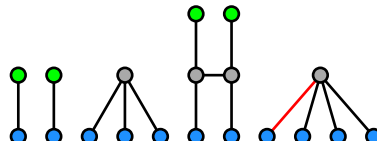
ID: 240

$V_1^2 \boxtimes V_2$



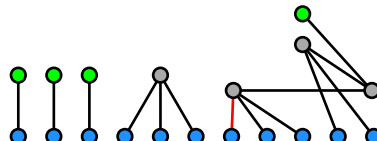
ID: 241

$V_1^2 \boxtimes V_2$



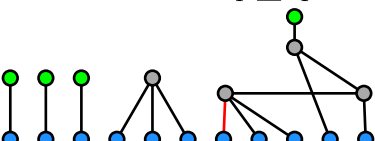
ID: 151

$V_1^3 \boxtimes V_1$



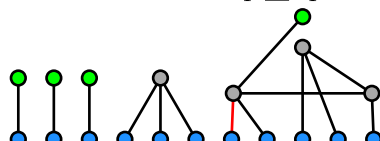
ID: 152

$V_1^3 \boxtimes V_1$



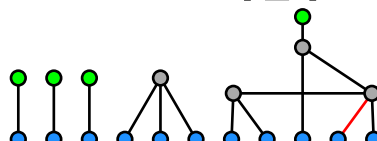
ID: 153

$V_1^3 \boxtimes V_1$



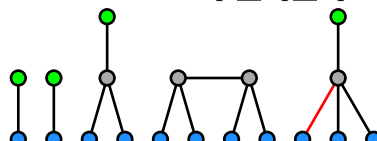
ID: 154

$V_1^3 \boxtimes V_1$



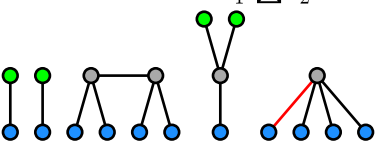
ID: 527

$V_1^2 \boxtimes V_1 \boxtimes V_1$



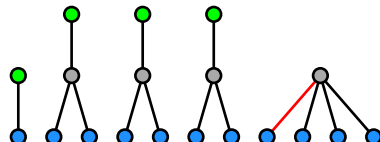
ID: 416

$V_1^2 \boxtimes V_2$



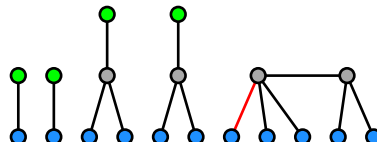
ID: 541

$V_1 \boxtimes V_3$



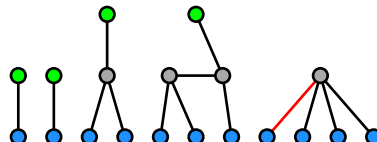
ID: 520

$V_1^2 \boxtimes V_2$



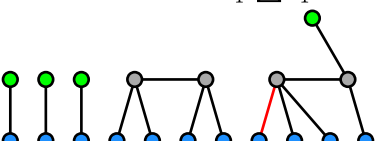
ID: 412

$V_1^2 \boxtimes V_1 \boxtimes V_1$



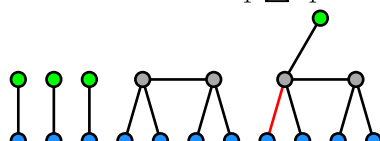
ID: 370

$V_1^3 \boxtimes V_1$



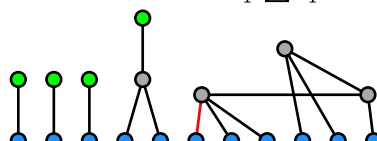
ID: 371

$V_1^3 \boxtimes V_1$



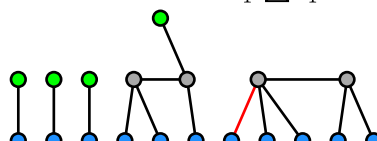
ID: 342

$V_1^3 \boxtimes V_1$



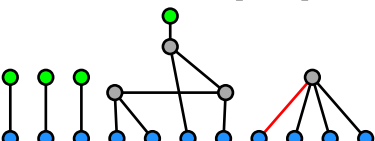
ID: 584

$V_1^3 \boxtimes V_1$



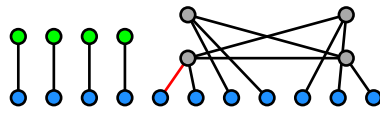
ID: 243

$V_1^3 \boxtimes V_1$



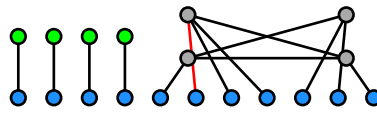
ID: 155

$V_1^4$



ID: 156

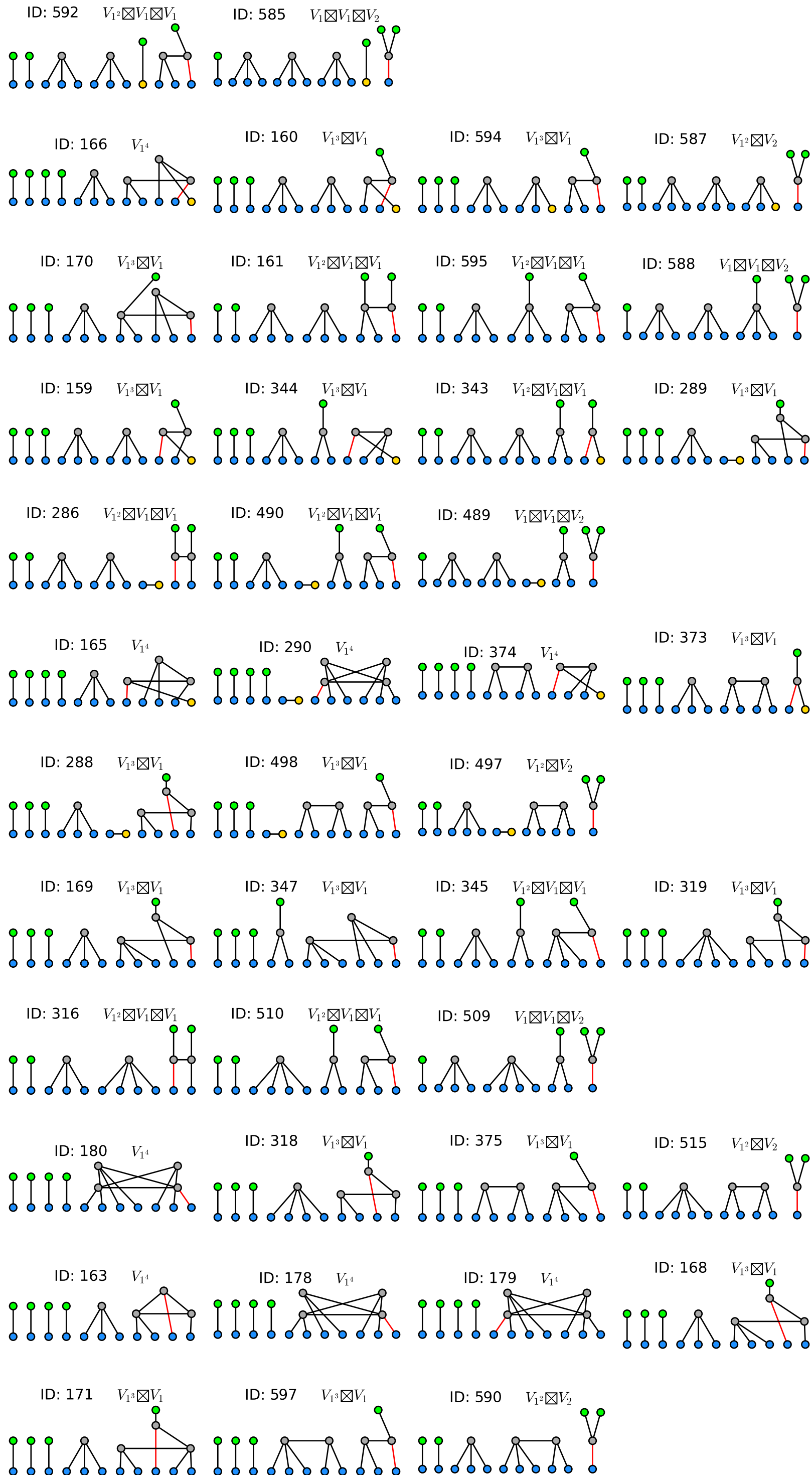
$V_1^4$

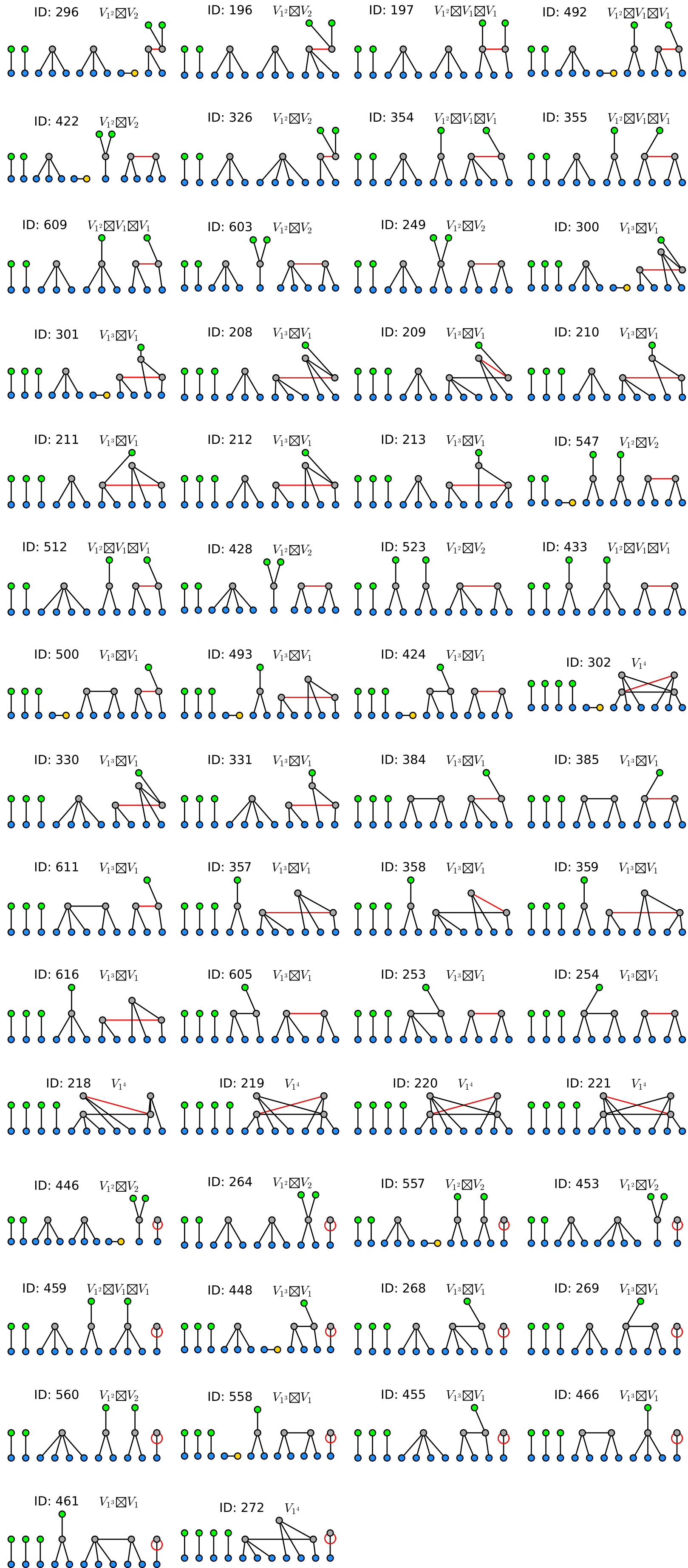




----- A2 case with weight 13 relations

relation groups: 8 -----

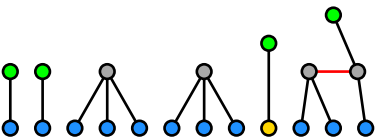




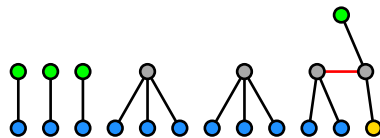
----- B,Birr cases with weight 11 relations

relation groups: 6 -----

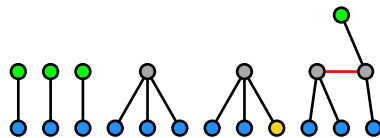
ID: 606  $V_1^2 \boxtimes V_1 \boxtimes V_1$



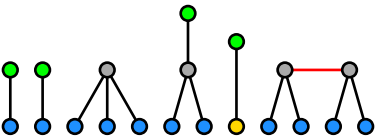
ID: 195  $V_1^3 \boxtimes V_1$



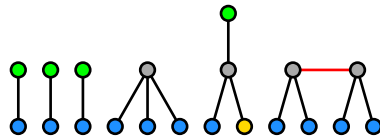
ID: 608  $V_1^3 \boxtimes V_1$



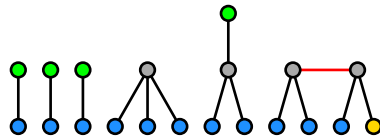
ID: 430  $V_1^2 \boxtimes V_1 \boxtimes V_1$



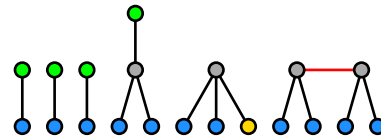
ID: 248  $V_1^3 \boxtimes V_1$



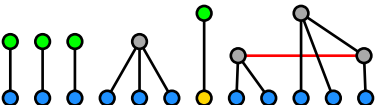
ID: 353  $V_1^3 \boxtimes V_1$



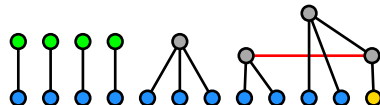
ID: 432  $V_1^3 \boxtimes V_1$



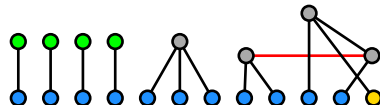
ID: 613  $V_1^3 \boxtimes V_1$



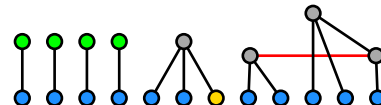
ID: 205  $V_1^4$



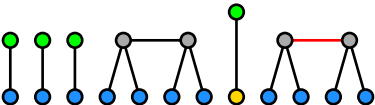
ID: 206  $V_1^4$



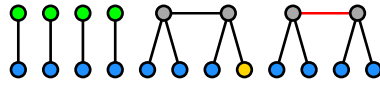
ID: 615  $V_1^4$



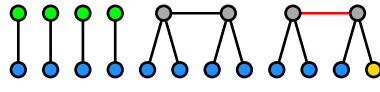
ID: 437  $V_1^3 \boxtimes V_1$



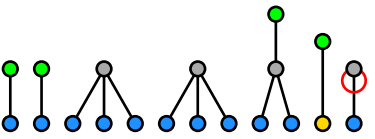
ID: 252  $V_1^4$



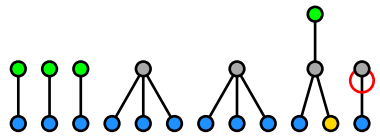
ID: 383  $V_1^4$



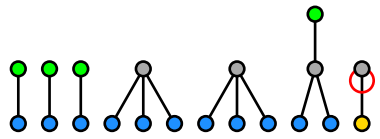
ID: 456  $V_1^2 \boxtimes V_1 \boxtimes V_1$



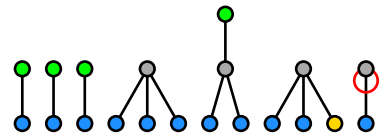
ID: 263  $V_1^3 \boxtimes V_1$



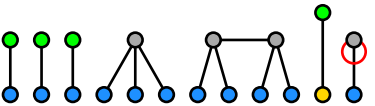
ID: 363  $V_1^3 \boxtimes V_1$



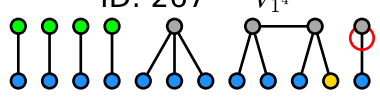
ID: 458  $V_1^3 \boxtimes V_1$



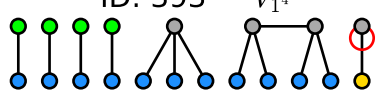
ID: 463  $V_1^3 \boxtimes V_1$



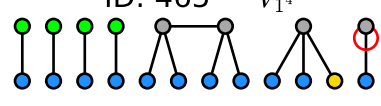
ID: 267  $V_1^4$



ID: 393  $V_1^4$



ID: 465  $V_1^4$



----- edges: 10    graphs: 72    -----  
 ----- A2 case with weight 13 relations    relation groups: 6 -----

