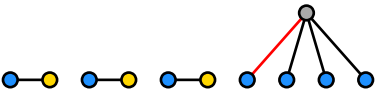
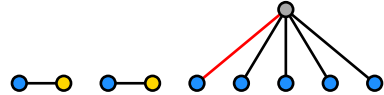


----- excess: 4 (g,n): (1, 13), (3, 10), (5, 7), (7, 4), (9, 1) graphs: 488 -----  
 ----- edges: 10-n graphs: 10 -----  
 --- A3 case graphs: 10 ---

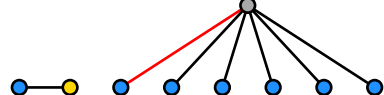
ID: 129  $V_{1^n}$   
n: 4 1



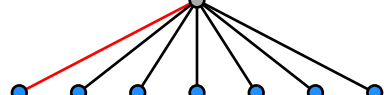
ID: 130  $V_{1^n}$   
n: 4 1



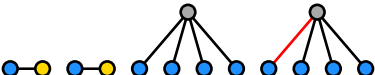
ID: 131  $V_{1^n}$   
n: 4 1



ID: 132  $V_{1^n}$   
n: 4 1



ID: 133  $V_{1^n}$   
n: 1



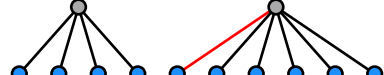
ID: 134  $V_{1^n}$   
n: 1



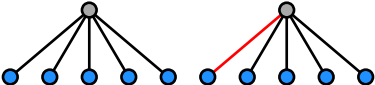
ID: 135  $V_{1^n}$   
n: 1



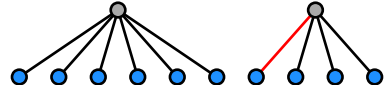
ID: 136  $V_{1^n}$   
n: 1



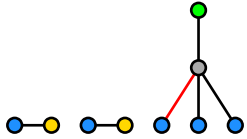
ID: 137  $V_{1^n}$   
n: 1



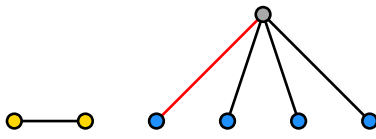
ID: 138  $V_{1^n}$   
n: 1



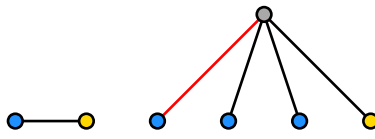
ID: 139  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



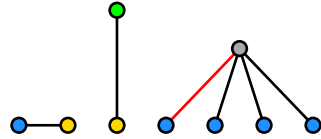
ID: 140  $V_1^n$   
 n: 7 4 1



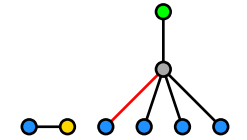
ID: 141  $V_1^n$   
 n: 7 4 1



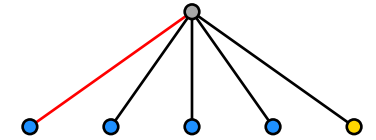
ID: 142  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



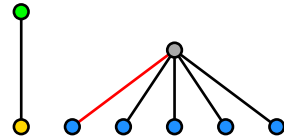
ID: 143  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



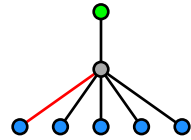
ID: 144  $V_1^n$   
 n: 7 4 1



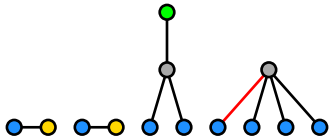
ID: 145  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



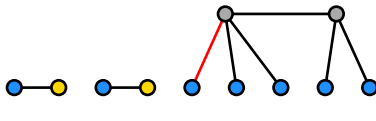
ID: 146  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



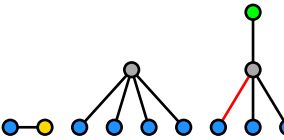
ID: 147  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



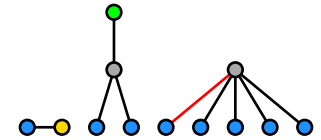
ID: 148  $V_1^n$   
 n: 4 1



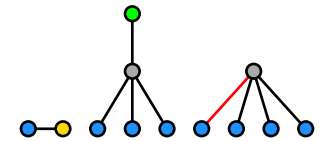
ID: 149  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



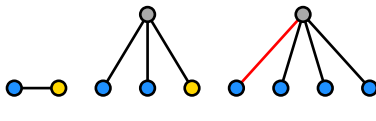
ID: 150  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



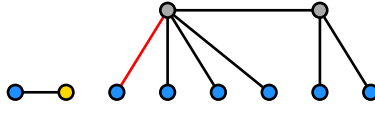
ID: 151  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



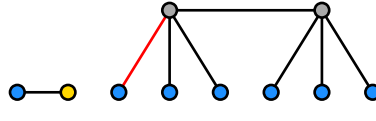
ID: 152  $V_1^n$   
 n: 4 1



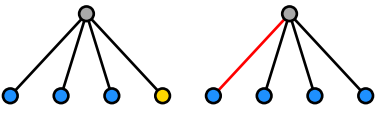
ID: 153  $V_1^n$   
 n: 4 1



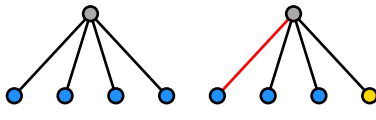
ID: 154  $V_1^n$   
 n: 4 1



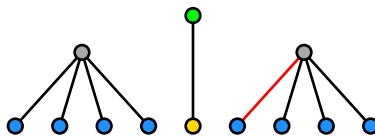
ID: 155  $V_1^n$   
 n: 4 1



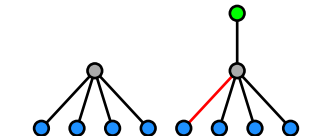
ID: 156  $V_1^n$   
 n: 4 1



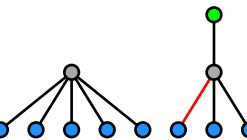
ID: 157  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



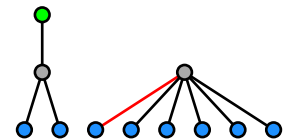
ID: 158  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



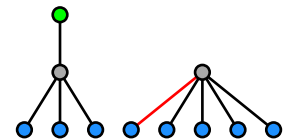
ID: 159  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



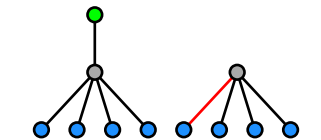
ID: 160  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



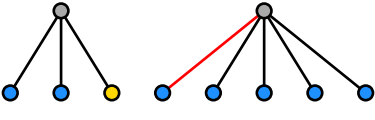
ID: 161  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



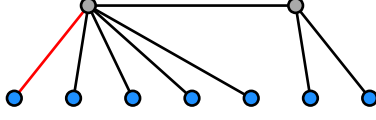
ID: 162  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



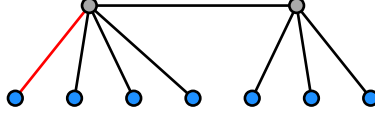
ID: 163  $V_1^n$   
 n: 4 1



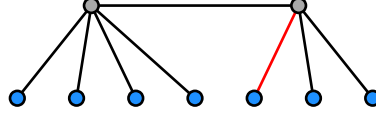
ID: 164  $V_1^n$   
 n: 4 1



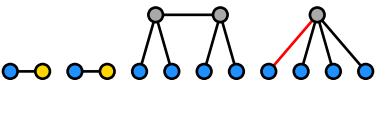
ID: 165  $V_1^n$   
 n: 4 1



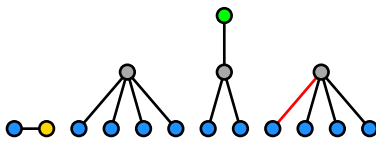
ID: 166  $V_1^n$   
 n: 4 1



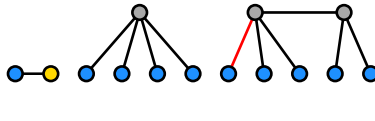
ID: 167  $V_1^n$   
 n: 1



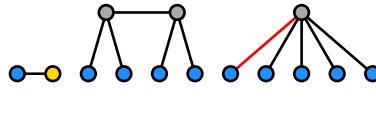
ID: 168  $V_1^{n-1} \boxtimes V_1$   
 n: 1



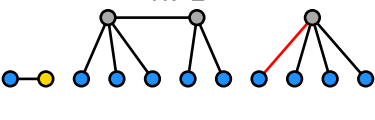
ID: 169  $V_1^n$   
 n: 1



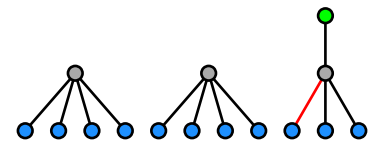
ID: 170  $V_1^n$   
 n: 1



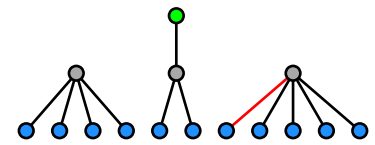
ID: 171  $V_1^n$   
 n: 1



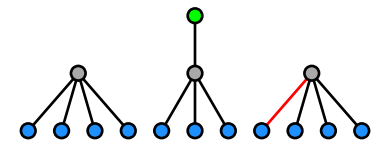
ID: 172  $V_1^{n-1} \boxtimes V_1$   
 n: 1



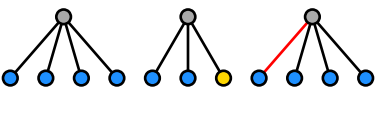
ID: 173  $V_1^{n-1} \boxtimes V_1$   
 n: 1



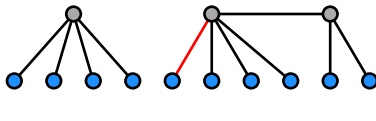
ID: 174  $V_1^{n-1} \boxtimes V_1$   
 n: 1



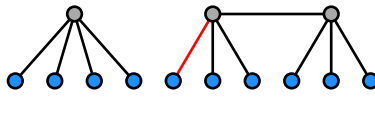
ID: 175  $V_1^n$   
 n: 1



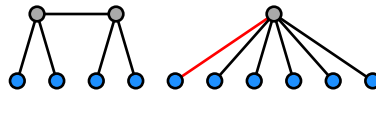
ID: 176  $V_1^n$   
 n: 1



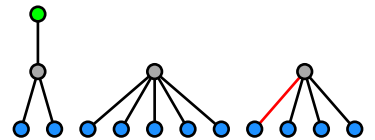
ID: 177  $V_1^n$   
 n: 1



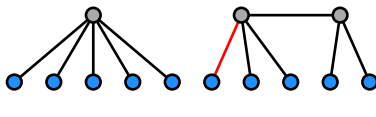
ID: 178  $V_1^n$   
 n: 1



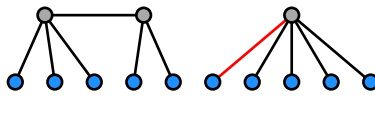
ID: 179  $V_1^{n-1} \boxtimes V_1$   
 n: 1



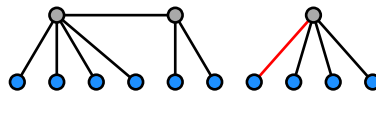
ID: 180  $V_1^n$   
 n: 1



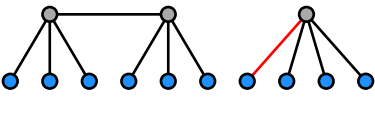
ID: 181  $V_1^n$   
 n: 1



ID: 182  $V_1^n$   
 n: 1

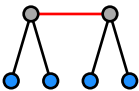


ID: 183  $V_1^n$   
 n: 1



--- B,Birr cases without weight 11 relations      graphs: 19 ---

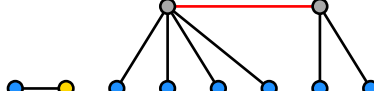
ID: 184  $V_1^n$   
n: 4 1



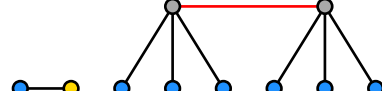
ID: 185  $V_1^n$   
n: 4 1



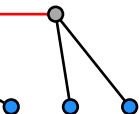
ID: 186  $V_1^n$   
n: 4 1



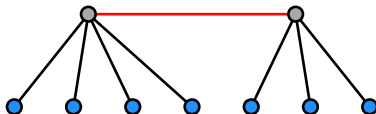
ID: 187  $V_1^n$   
n: 4 1



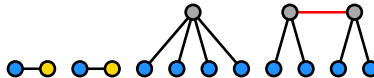
ID: 188  $V_1^n$   
n: 4 1



ID: 189  $V_1^n$   
n: 4 1



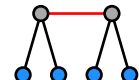
ID: 190  $V_1^n$   
n: 1



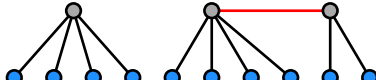
ID: 193  $V_1^n$   
n: 1



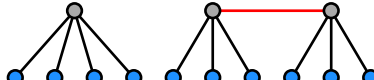
ID: 191  $V_1^n$   
n: 1



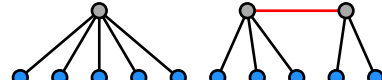
ID: 195  $V_1^n$   
n: 1



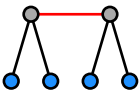
ID: 196  $V_1^n$   
n: 1



ID: 194  $V_1^n$   
n: 1



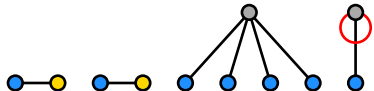
ID: 192  $V_1^n$   
n: 1



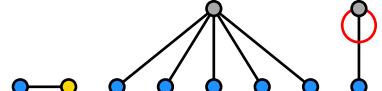
ID: 197  $V_1^n$   
n: 7 4 1



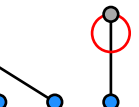
ID: 198  $V_1^n$   
n: 4 1



ID: 199  $V_1^n$   
n: 4 1



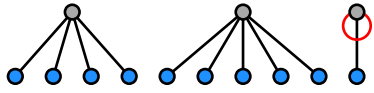
ID: 200  $V_1^n$   
n: 4 1



ID: 201  $V_1^n$   
n: 1

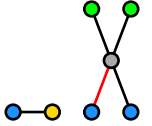


ID: 202  $V_1^n$   
n: 1

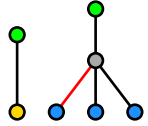


----- edges: 12-n      graphs: 165  
 --- A3 case      graphs: 66

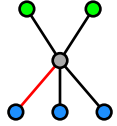
ID: 203  $V_1^{n-2} \boxtimes V_2$   
 n: 10 7 4



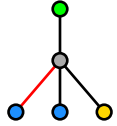
ID: 204  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
 n: 10 7 4



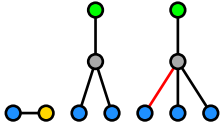
ID: 205  $V_1^{n-2} \boxtimes V_2$   
 n: 10 7 4



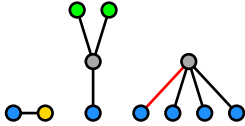
ID: 206  $V_1^{n-1} \boxtimes V_1$   
 n: 10 7 4 1



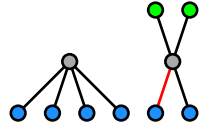
ID: 207  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
 n: 7 4



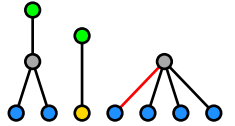
ID: 208  $V_1^{n-2} \boxtimes V_2$   
 n: 7 4



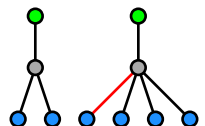
ID: 209  $V_1^{n-2} \boxtimes V_2$   
 n: 7 4



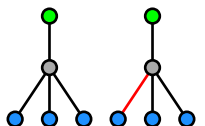
ID: 210  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
 n: 7 4



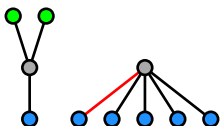
ID: 211  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
 n: 7 4



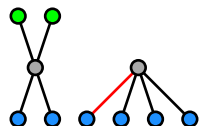
ID: 212  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
 n: 7 4



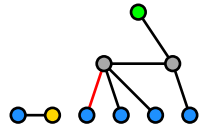
ID: 213  $V_1^{n-2} \boxtimes V_2$   
 n: 7 4



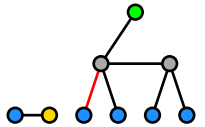
ID: 214  $V_1^{n-2} \boxtimes V_2$   
 n: 7 4



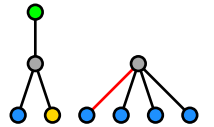
ID: 215  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



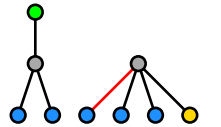
ID: 216  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



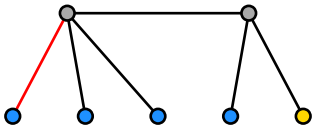
ID: 217  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



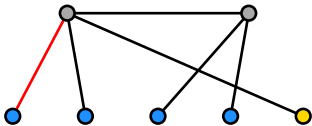
ID: 218  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



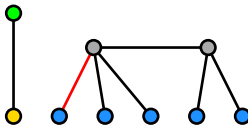
ID: 219  $V_1^n$   
 n: 7 4 1



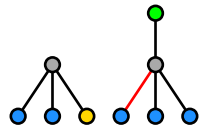
ID: 220  $V_1^n$   
 n: 7 4 1



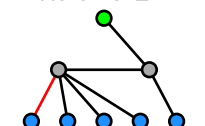
ID: 221  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



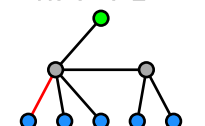
ID: 222  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



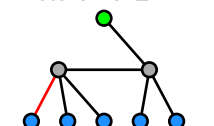
ID: 223  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



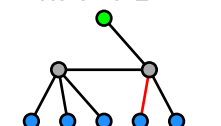
ID: 224  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



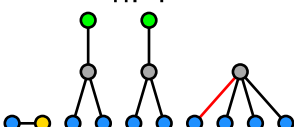
ID: 225  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



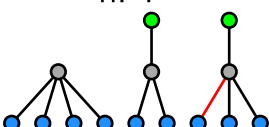
ID: 226  $V_1^{n-1} \boxtimes V_1$   
 n: 7 4 1



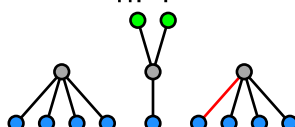
ID: 227  $V_1^{n-2} \boxtimes V_2$   
 n: 4



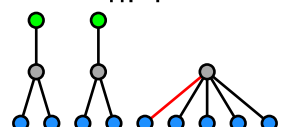
ID: 228  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
 n: 4



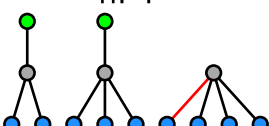
ID: 229  $V_1^{n-2} \boxtimes V_2$   
 n: 4



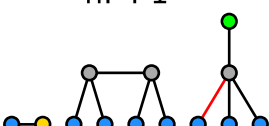
ID: 230  $V_1^{n-2} \boxtimes V_2$   
 n: 4



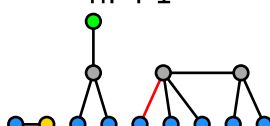
ID: 231  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
 n: 4



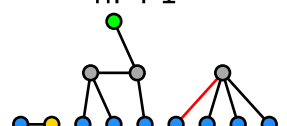
ID: 232  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



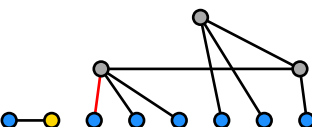
ID: 233  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



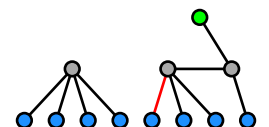
ID: 234  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



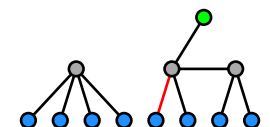
ID: 235  $V_1^n$   
 n: 4 1



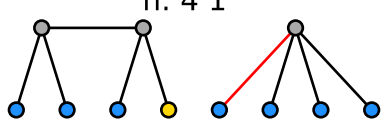
ID: 236  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



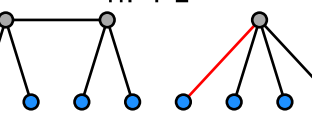
ID: 237  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



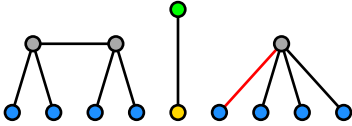
ID: 238  $V_1^n$   
 n: 4 1



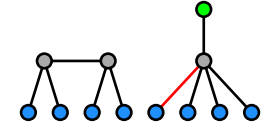
ID: 239  $V_1^n$   
 n: 4 1



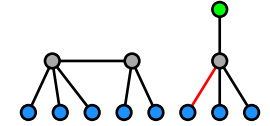
ID: 240  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



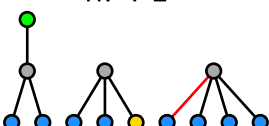
ID: 241  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



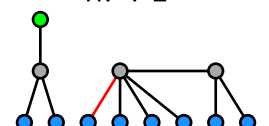
ID: 242  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



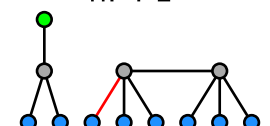
ID: 243  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



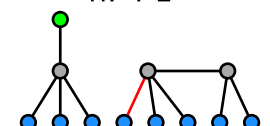
ID: 244  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



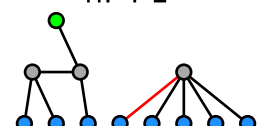
ID: 245  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



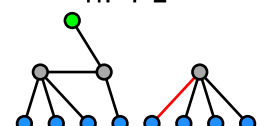
ID: 246  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



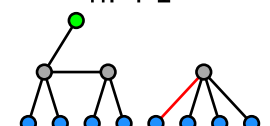
ID: 247  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



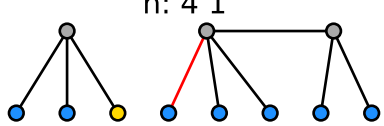
ID: 248  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



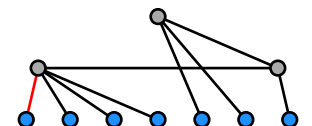
ID: 249  $V_1^{n-1} \boxtimes V_1$   
 n: 4 1



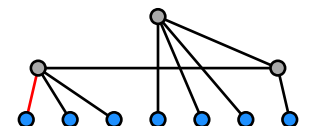
ID: 250  $V_1^n$   
 n: 4 1



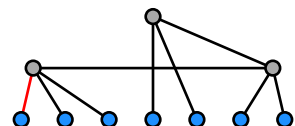
ID: 251  $V_1^n$   
 n: 4 1



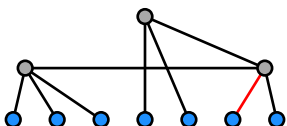
ID: 252  $V_1^n$   
 n: 4 1



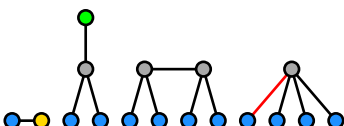
ID: 253  $V_1^n$   
 n: 4 1



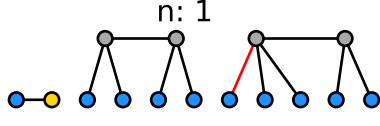
ID: 254  $V_1^n$   
 n: 4 1



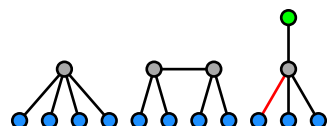
ID: 255  $V_1^{n-1} \boxtimes V_1$   
 n: 1



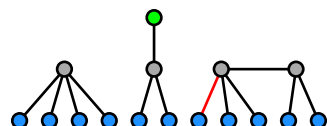
ID: 256  $V_1^n$   
 n: 1



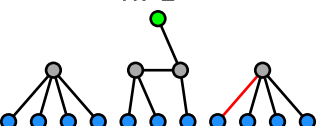
ID: 257  $V_1^{n-1} \boxtimes V_1$   
 n: 1



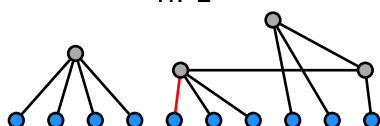
ID: 258  $V_1^{n-1} \boxtimes V_1$   
 n: 1



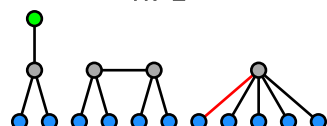
ID: 259  $V_1^{n-1} \boxtimes V_1$   
 n: 1



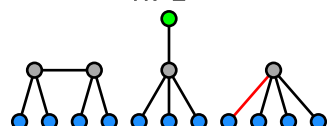
ID: 260  $V_1^n$   
 n: 1



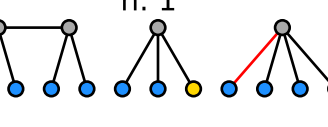
ID: 261  $V_1^{n-1} \boxtimes V_1$   
 n: 1



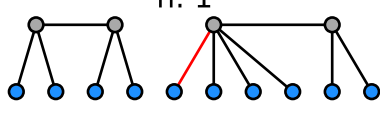
ID: 262  $V_1^{n-1} \boxtimes V_1$   
 n: 1



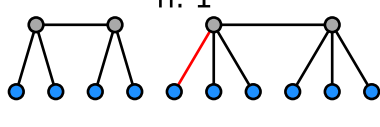
ID: 263  $V_1^n$   
 n: 1



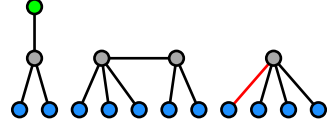
ID: 264  $V_1^n$   
 n: 1



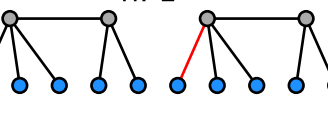
ID: 265  $V_1^n$   
 n: 1



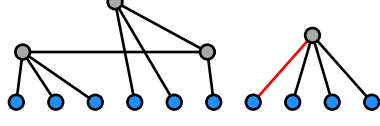
ID: 266  $V_1^{n-1} \boxtimes V_1$   
 n: 1



ID: 267  $V_1^n$   
 n: 1

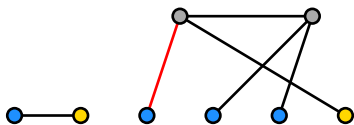


ID: 268  $V_1^n$   
 n: 1

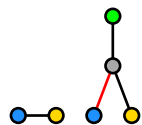


--- A2 case with weight 13 relations      relation groups: 4 ---

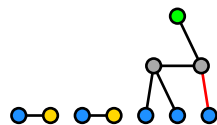
ID: 274  $V_1^n$   
n: 7 4 1



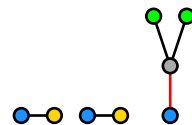
ID: 270  $V_1^{n-1} \boxtimes V_1$   
n: 10 7 4 1



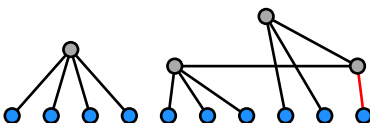
ID: 273  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



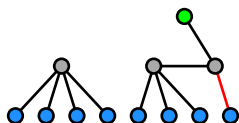
ID: 269  $V_1^{n-2} \boxtimes V_2$   
n: 10 7 4



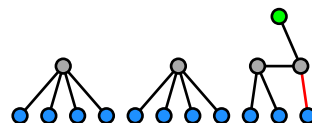
ID: 287  $V_1^n$   
n: 1



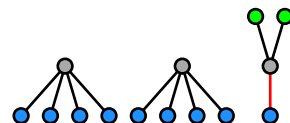
ID: 283  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



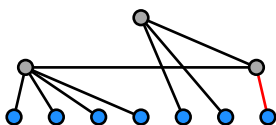
ID: 286  $V_1^{n-1} \boxtimes V_1$   
n: 1



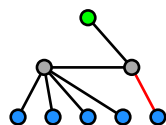
ID: 279  $V_1^{n-2} \boxtimes V_2$   
n: 4



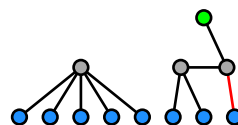
ID: 285  $V_1^n$   
n: 4 1



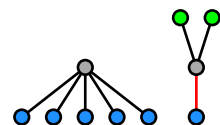
ID: 278  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



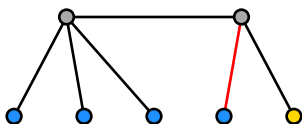
ID: 284  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



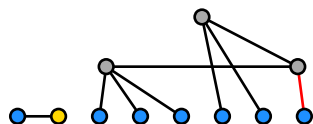
ID: 272  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



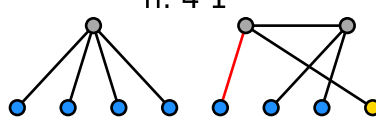
ID: 277  $V_1^n$   
n: 7 4 1



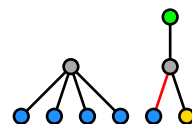
ID: 281  $V_1^n$   
n: 4 1



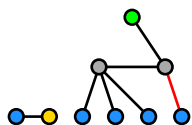
ID: 282  $V_1^n$   
n: 4 1



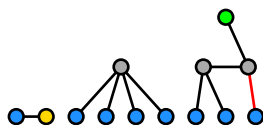
ID: 276  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



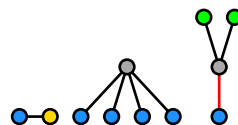
ID: 275  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



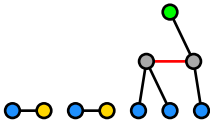
ID: 280  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



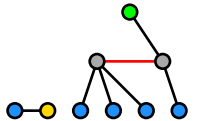
ID: 271  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



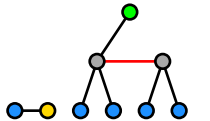
ID: 291  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



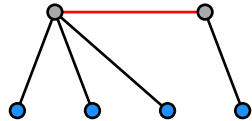
ID: 293  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



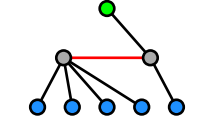
ID: 294  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



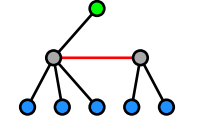
ID: 295  $V_1^n$   
n: 7 4 1



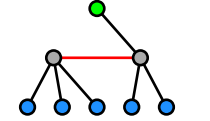
ID: 298  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



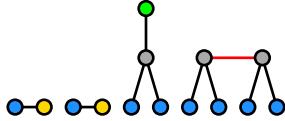
ID: 299  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



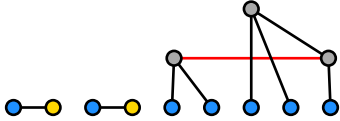
ID: 300  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



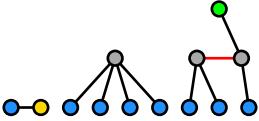
ID: 301  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



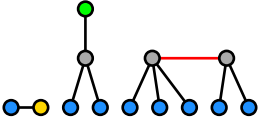
ID: 310  $V_1^n$   
n: 4 1



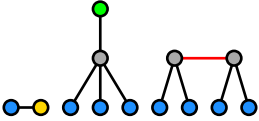
ID: 311  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



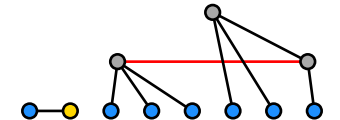
ID: 307  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



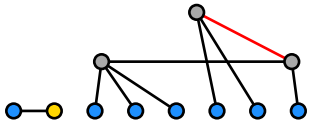
ID: 302  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



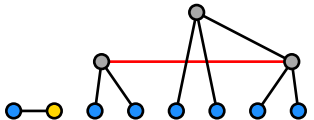
ID: 315  $V_1^n$   
n: 4 1



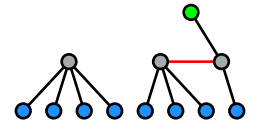
ID: 317  $V_1^n$   
n: 4 1



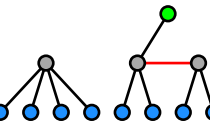
ID: 316  $V_1^n$   
n: 4 1



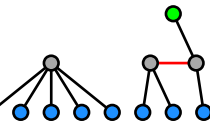
ID: 319  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



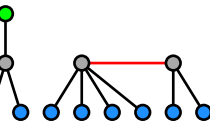
ID: 320  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



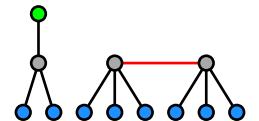
ID: 312  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



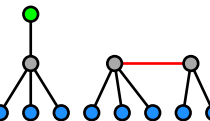
ID: 313  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



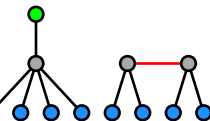
ID: 314  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



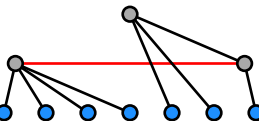
ID: 308  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



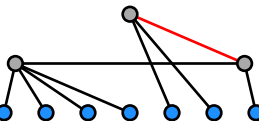
ID: 306  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



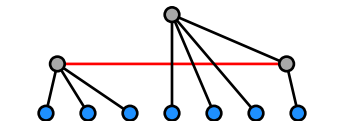
ID: 321  $V_1^n$   
n: 4 1



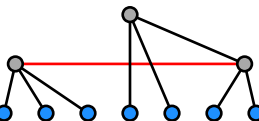
ID: 324  $V_1^n$   
n: 4 1



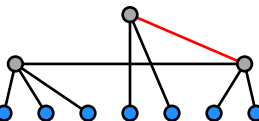
ID: 325  $V_1^n$   
n: 4 1



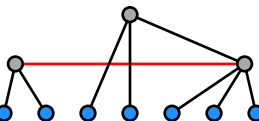
ID: 322  $V_1^n$   
n: 4 1



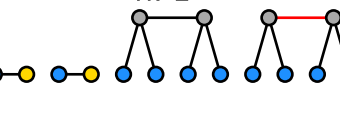
ID: 326  $V_1^n$   
n: 4 1



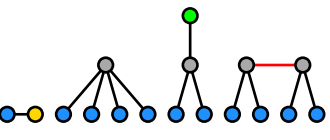
ID: 323  $V_1^n$   
n: 4 1



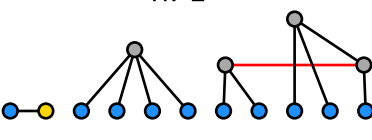
ID: 327  $V_1^n$   
n: 1



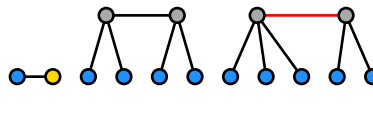
ID: 328  $V_1^{n-1} \boxtimes V_1$   
n: 1



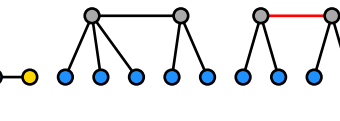
ID: 338  $V_1^n$   
n: 1



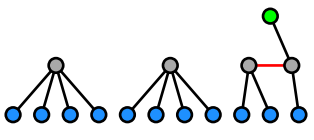
ID: 335  $V_1^n$   
n: 1



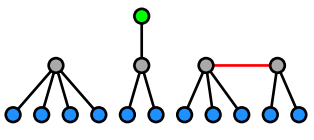
ID: 329  $V_1^n$   
n: 1



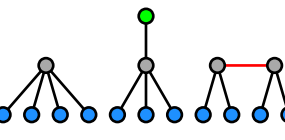
ID: 340  $V_1^{n-1} \boxtimes V_1$   
n: 1



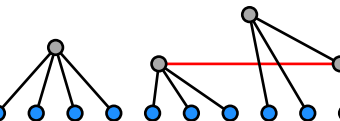
ID: 336  $V_1^{n-1} \boxtimes V_1$   
n: 1



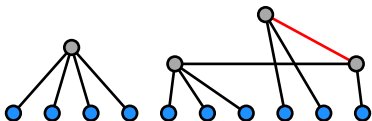
ID: 330  $V_1^{n-1} \boxtimes V_1$   
n: 1



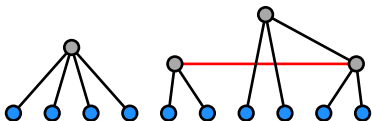
ID: 343  $V_1^n$   
n: 1



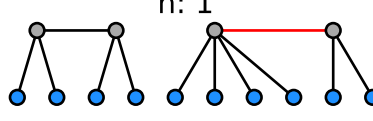
ID: 345  $V_1^n$   
n: 1



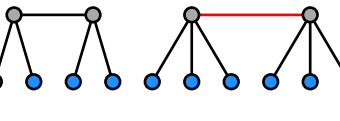
ID: 344  $V_1^n$   
n: 1



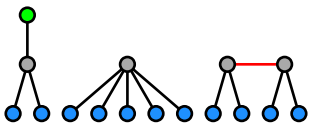
ID: 341  $V_1^n$   
n: 1



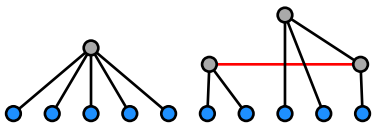
ID: 342  $V_1^n$   
n: 1



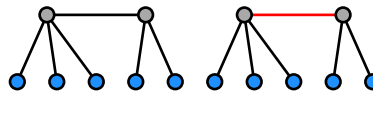
ID: 332  $V_1^{n-1} \boxtimes V_1$   
n: 1



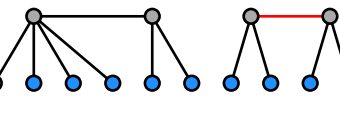
ID: 339  $V_1^n$   
n: 1



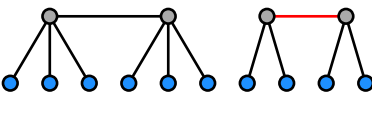
ID: 337  $V_1^n$   
n: 1



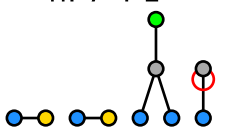
ID: 333  $V_1^n$   
n: 1



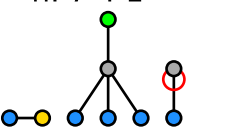
ID: 334  $V_1^n$   
n: 1



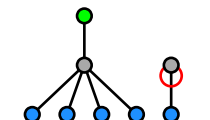
ID: 349  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



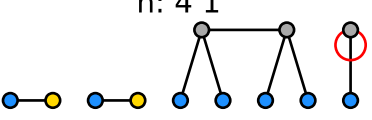
ID: 350  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



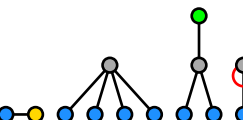
ID: 355  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



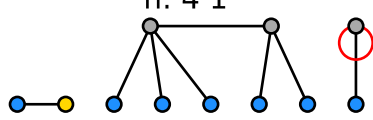
ID: 356  $V_1^n$   
n: 4 1



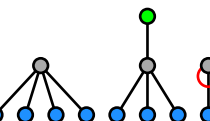
ID: 357  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



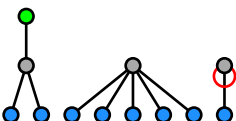
ID: 358  $V_1^n$   
n: 4 1



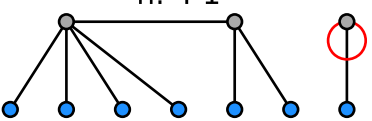
ID: 359  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



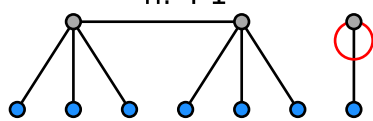
ID: 361  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



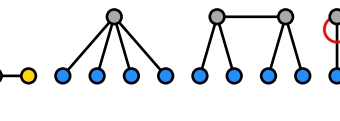
ID: 362  $V_1^n$   
n: 4 1



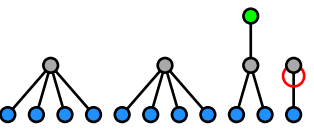
ID: 363  $V_1^n$   
n: 4 1



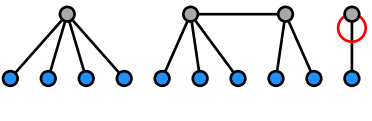
ID: 364  $V_1^n$   
n: 1



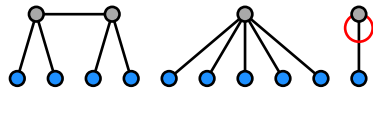
ID: 365  $V_1^{n-1} \boxtimes V_1$   
n: 1



ID: 366  $V_1^n$   
n: 1

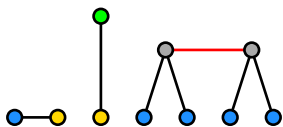


ID: 367  $V_1^n$   
n: 1

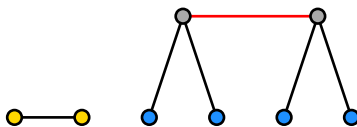


--- B,Birr cases with weight 11 relations      relation groups: 5 ---

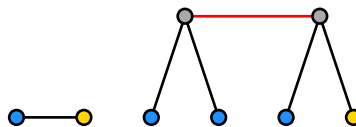
ID: 289  $V_{1^{n-1}} \boxtimes V_1$   
n: 7 4 1



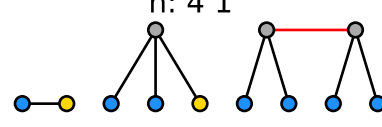
ID: 288  $V_{1^n}$   
n: 7 4 1



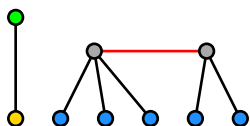
ID: 292  $V_{1^n}$   
n: 7 4 1



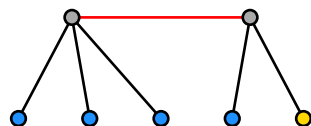
ID: 303  $V_{1^n}$   
n: 4 1



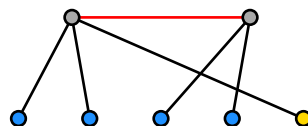
ID: 290  $V_{1^{n-1}} \boxtimes V_1$   
n: 7 4 1



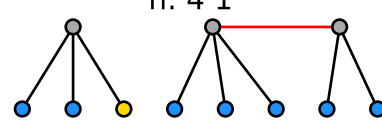
ID: 296  $V_{1^n}$   
n: 7 4 1



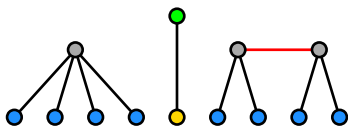
ID: 297  $V_{1^n}$   
n: 7 4 1



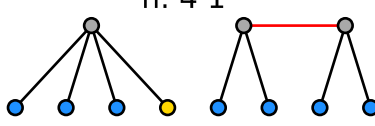
ID: 309  $V_{1^n}$   
n: 4 1



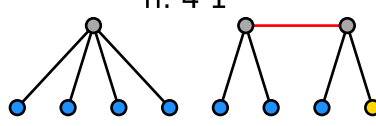
ID: 305  $V_{1^{n-1}} \boxtimes V_1$   
n: 4 1



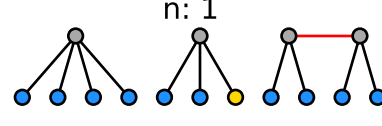
ID: 304  $V_{1^n}$   
n: 4 1



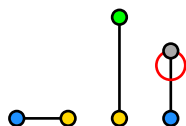
ID: 318  $V_{1^n}$   
n: 4 1



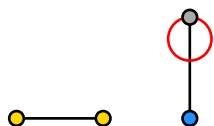
ID: 331  $V_{1^n}$   
n: 1



ID: 348  $V_{1^{n-1}} \boxtimes V_1$   
n: 10 7 4 1



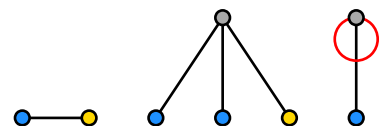
ID: 346  $V_{1^n}$   
n: 10 7 4 1



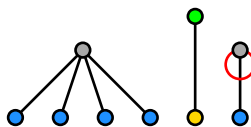
ID: 347  $V_{1^n}$   
n: 10 7 4 1



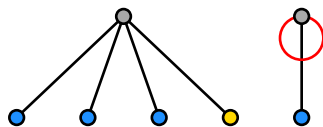
ID: 351  $V_{1^n}$   
n: 7 4 1



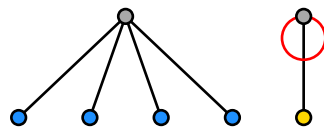
ID: 354  $V_{1^{n-1}} \boxtimes V_1$   
n: 7 4 1



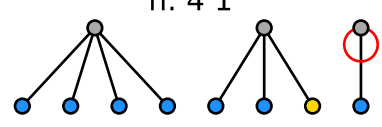
ID: 352  $V_{1^n}$   
n: 7 4 1



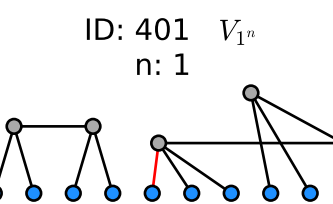
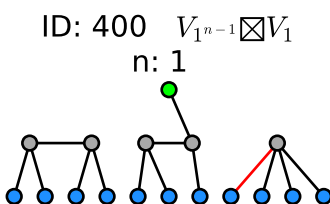
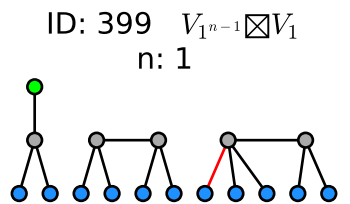
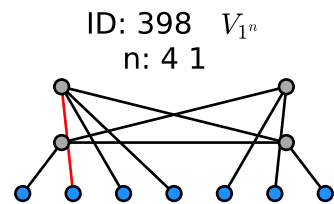
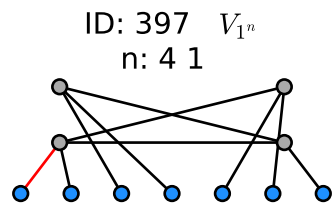
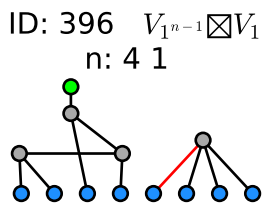
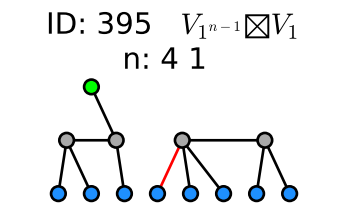
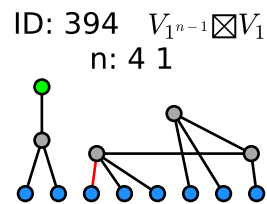
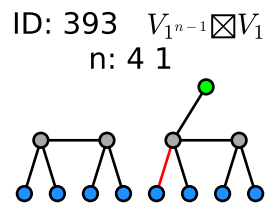
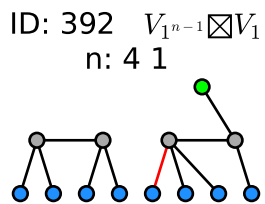
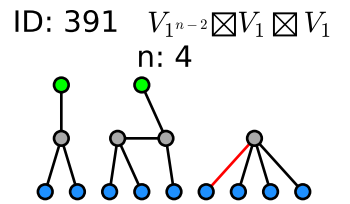
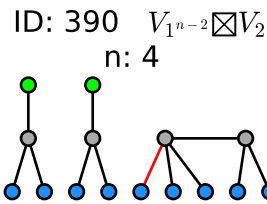
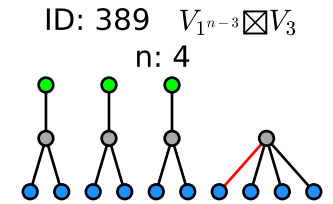
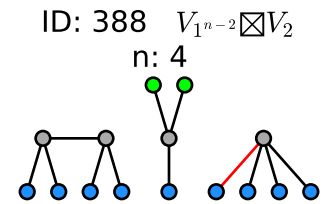
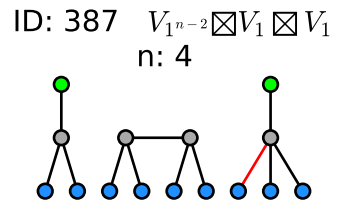
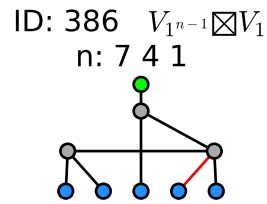
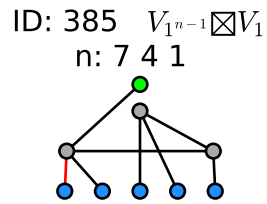
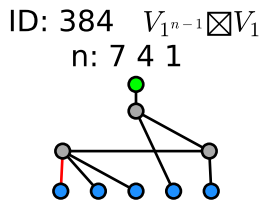
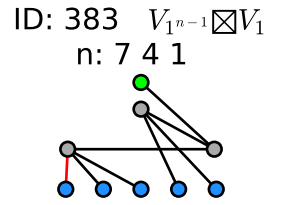
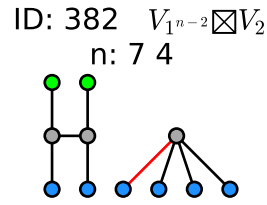
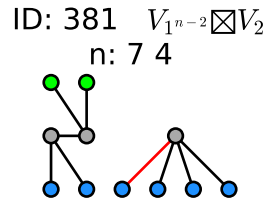
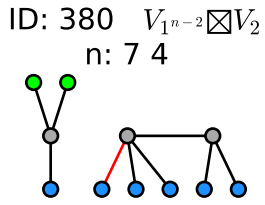
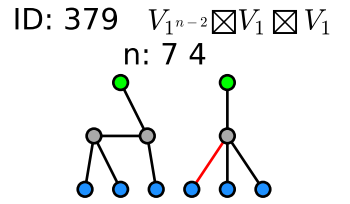
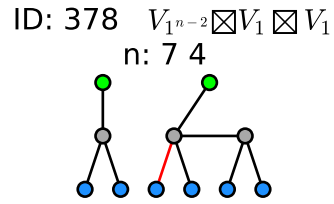
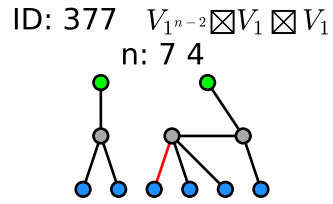
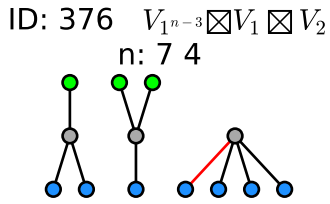
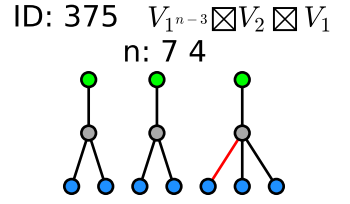
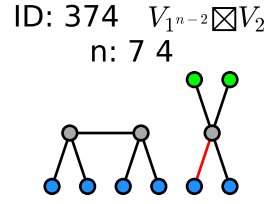
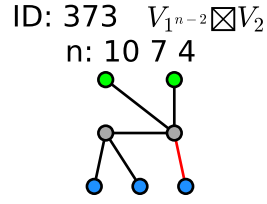
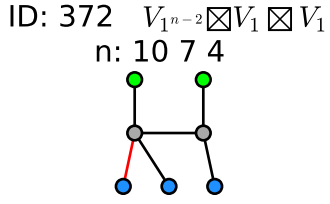
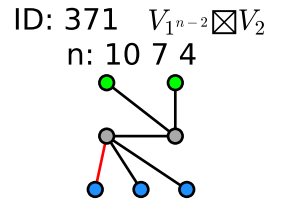
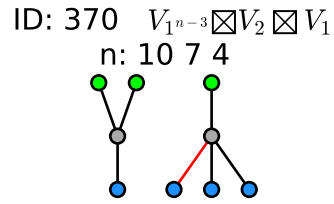
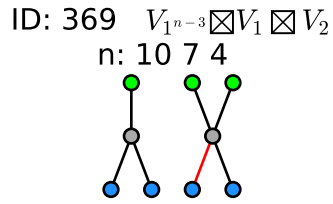
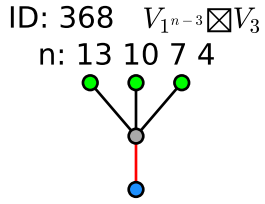
ID: 353  $V_{1^n}$   
n: 7 4 1



ID: 360  $V_{1^n}$   
n: 4 1

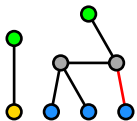


----- edges: 13-n      graphs: 176      -----  
 --- A3 case      graphs: 34 ---

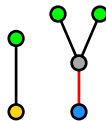




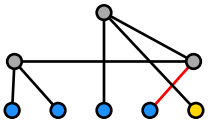
ID: 407  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 10 7 4



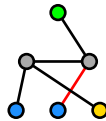
ID: 402  $V_1^{n-3} \boxtimes V_1 \boxtimes V_2$   
n: 13 10 7 4



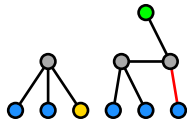
ID: 425  $V_1^n$   
n: 7 4 1



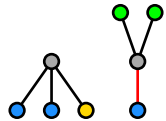
ID: 411  $V_1^{n-1} \boxtimes V_1$   
n: 10 7 4 1



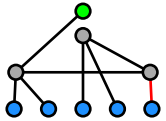
ID: 426  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



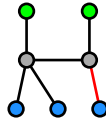
ID: 408  $V_1^{n-2} \boxtimes V_2$   
n: 10 7 4



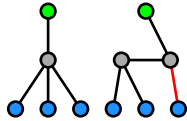
ID: 429  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



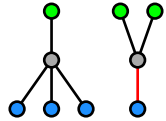
ID: 409  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 10 7 4



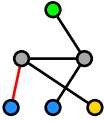
ID: 418  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



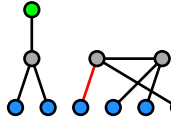
ID: 406  $V_1^{n-3} \boxtimes V_1 \boxtimes V_2$   
n: 10 7 4



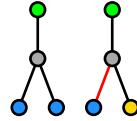
ID: 410  $V_1^{n-1} \boxtimes V_1$   
n: 10 7 4 1



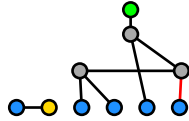
ID: 422  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



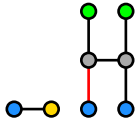
ID: 405  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 10 7 4



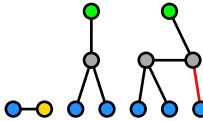
ID: 420  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



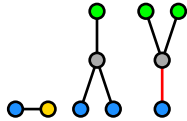
ID: 404  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 10 7 4



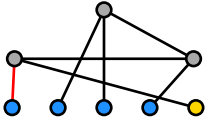
ID: 413  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



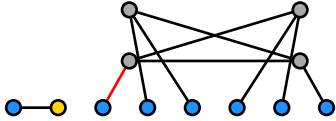
ID: 403  $V_1^{n-3} \boxtimes V_1 \boxtimes V_2$   
n: 10 7 4



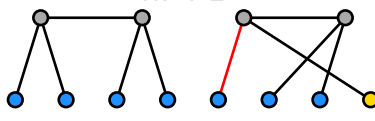
ID: 424  $V_1^n$   
n: 7 4 1



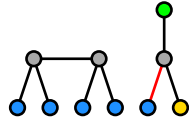
ID: 434  $V_1^n$   
n: 4 1



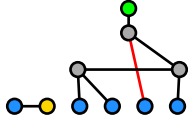
ID: 437  $V_1^n$   
n: 4 1



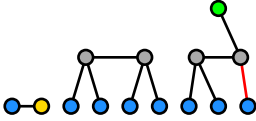
ID: 421  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



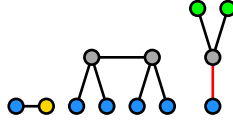
ID: 419  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



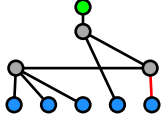
ID: 433  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



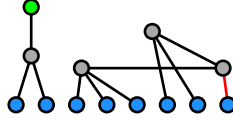
ID: 412  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



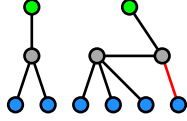
ID: 428  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



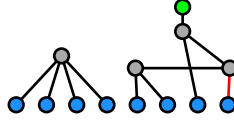
ID: 440  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



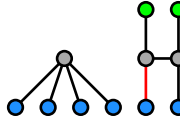
ID: 417  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



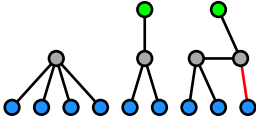
ID: 436  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



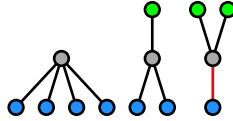
ID: 415  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



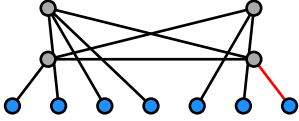
ID: 432  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 4



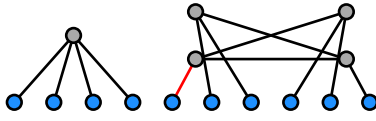
ID: 414  $V_1^{n-3} \boxtimes V_1 \boxtimes V_2$   
n: 7 4



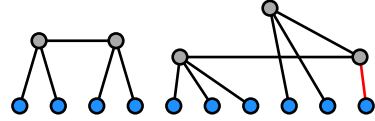
ID: 443  $V_1^n$   
n: 4 1



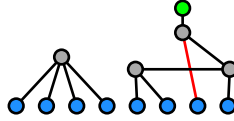
ID: 445  $V_1^n$   
n: 1



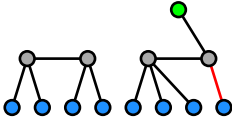
ID: 446  $V_1^n$   
n: 1



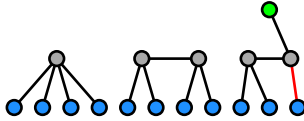
ID: 435  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



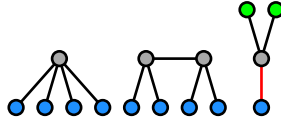
ID: 438  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



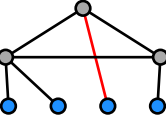
ID: 444  $V_1^{n-1} \boxtimes V_1$   
n: 1



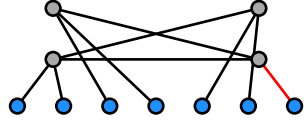
ID: 431  $V_1^{n-2} \boxtimes V_2$   
n: 4



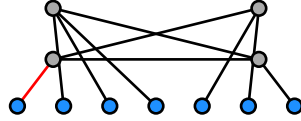
ID: 423  $V_1^n$   
n: 7 4 1



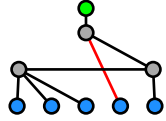
ID: 441  $V_1^n$   
n: 4 1



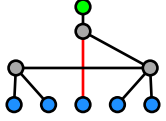
ID: 442  $V_1^n$   
n: 4 1



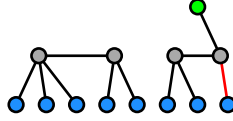
ID: 427  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



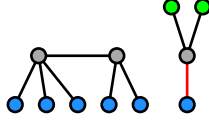
ID: 430  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



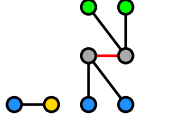
ID: 439  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



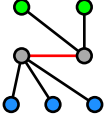
ID: 416  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



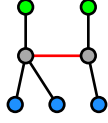
ID: 448  $V_1^{n-2} \boxtimes V_2$   
n: 10 7 4



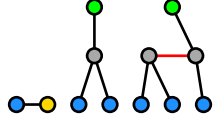
ID: 449  $V_1^{n-2} \boxtimes V_2$   
n: 10 7 4



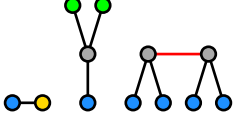
ID: 450  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 10 7 4



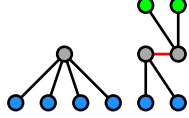
ID: 456  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



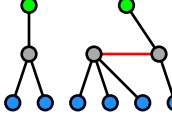
ID: 452  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



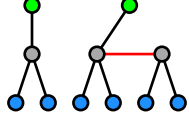
ID: 460  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



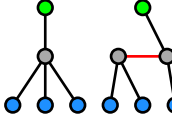
ID: 458  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



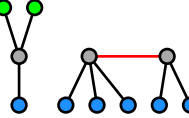
ID: 459  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



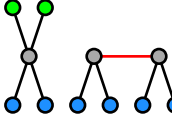
ID: 457  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



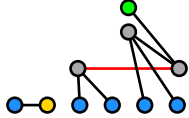
ID: 455  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



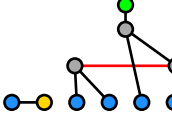
ID: 454  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



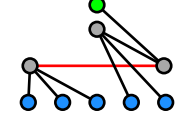
ID: 465  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



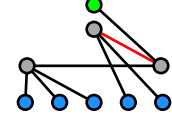
ID: 466  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



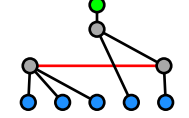
ID: 469  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



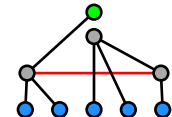
ID: 472  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



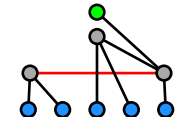
ID: 473  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



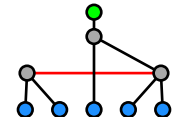
ID: 470  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



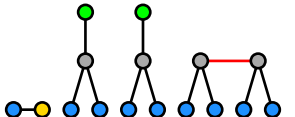
ID: 471  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



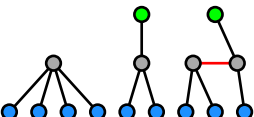
ID: 474  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



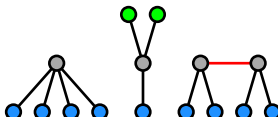
ID: 475  $V_1^{n-2} \boxtimes V_2$   
n: 4



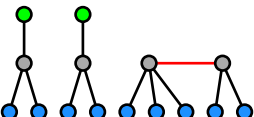
ID: 479  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 4



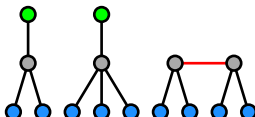
ID: 476  $V_1^{n-2} \boxtimes V_2$   
n: 4



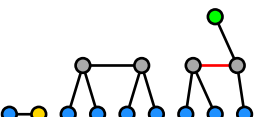
ID: 478  $V_1^{n-2} \boxtimes V_2$   
n: 4



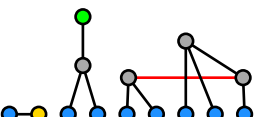
ID: 477  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 4



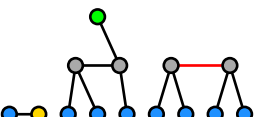
ID: 490  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



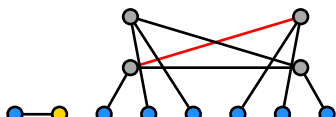
ID: 487  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



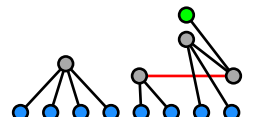
ID: 480  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



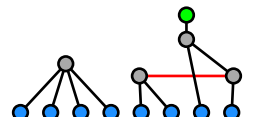
ID: 495  $V_1^n$   
n: 4 1



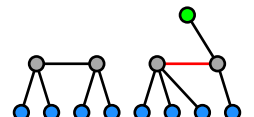
ID: 499  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



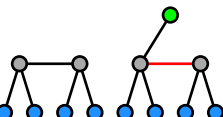
ID: 500  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



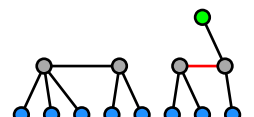
ID: 497  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



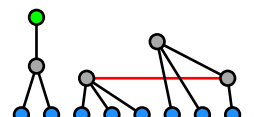
ID: 498  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



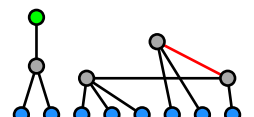
ID: 491  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



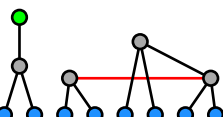
ID: 492  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



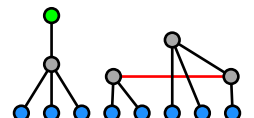
ID: 494  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



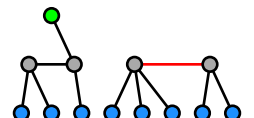
ID: 493  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



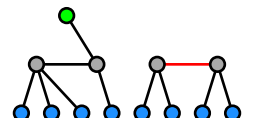
ID: 488  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



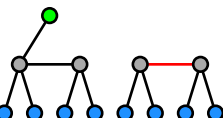
ID: 486  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



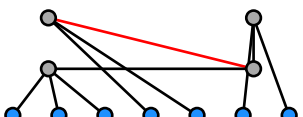
ID: 484  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



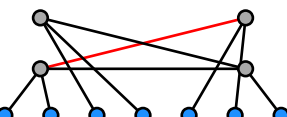
ID: 485  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



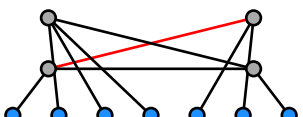
ID: 501  $V_1^n$   
n: 4 1



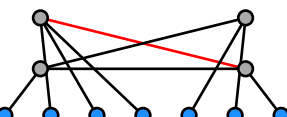
ID: 502  $V_1^n$   
n: 4 1



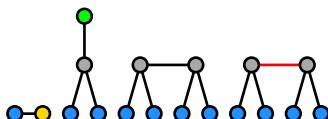
ID: 504  $V_1^n$   
n: 4 1



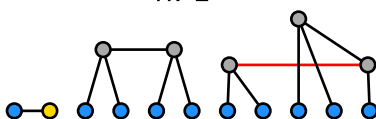
ID: 503  $V_1^n$   
n: 4 1



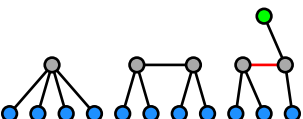
ID: 505  $V_1^{n-1} \boxtimes V_1$   
n: 1



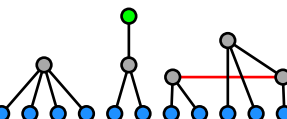
ID: 512  $V_1^n$   
n: 1



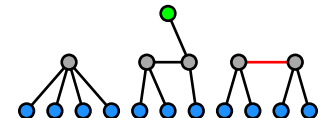
ID: 515  $V_1^{n-1} \boxtimes V_1$   
n: 1



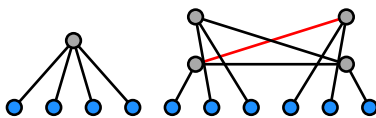
ID: 513  $V_1^{n-1} \boxtimes V_1$   
n: 1



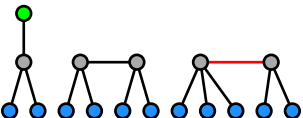
ID: 506  $V_1^{n-1} \boxtimes V_1$   
n: 1



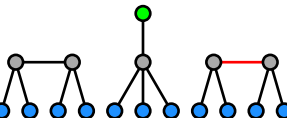
ID: 519  $V_1^n$   
n: 1



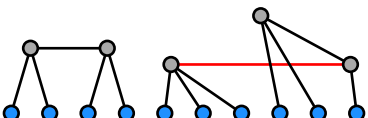
ID: 511  $V_1^{n-1} \boxtimes V_1$   
n: 1



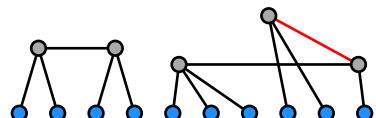
ID: 507  $V_1^{n-1} \boxtimes V_1$   
n: 1



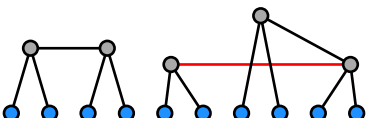
ID: 516  $V_1^n$   
n: 1



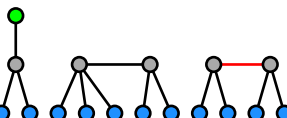
ID: 518  $V_1^n$   
n: 1



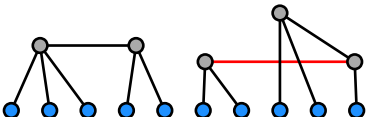
ID: 517  $V_1^n$   
n: 1



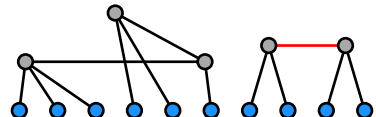
ID: 509  $V_1^{n-1} \boxtimes V_1$   
n: 1



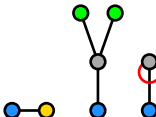
ID: 514  $V_1^n$   
n: 1



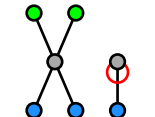
ID: 510  $V_1^n$   
n: 1



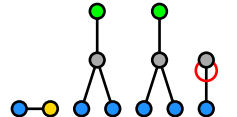
ID: 520  $V_1^{n-2} \boxtimes V_2$   
n: 10 7 4



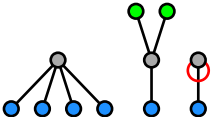
ID: 522  $V_1^{n-2} \boxtimes V_2$   
n: 10 7 4



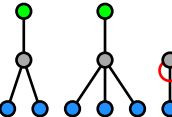
ID: 525  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



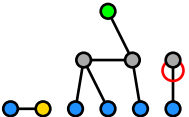
ID: 526  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



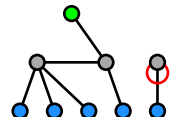
ID: 527  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



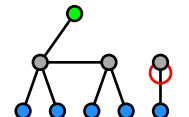
ID: 528  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



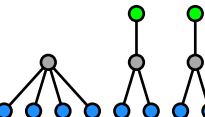
ID: 533  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



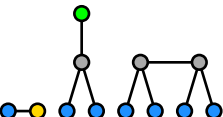
ID: 534  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



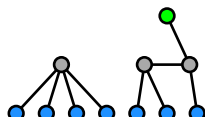
ID: 535  $V_1^{n-2} \boxtimes V_2$   
n: 4



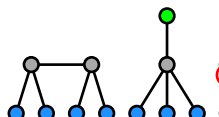
ID: 536  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



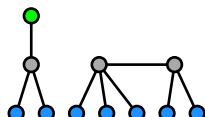
ID: 537  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



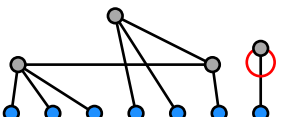
ID: 538  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



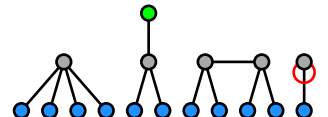
ID: 540  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



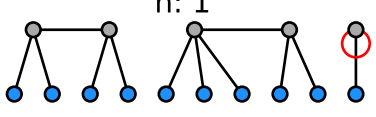
ID: 541  $V_1^n$   
n: 4 1



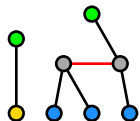
ID: 542  $V_1^{n-1} \boxtimes V_1$   
n: 1



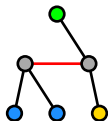
ID: 543  $V_1^n$   
n: 1



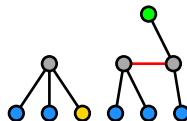
ID: 447  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 10 7 4



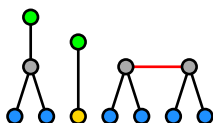
ID: 451  $V_1^{n-1} \boxtimes V_1$   
n: 10 7 4 1



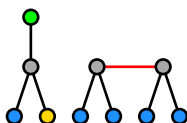
ID: 463  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



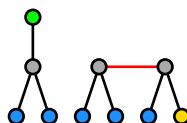
ID: 453  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



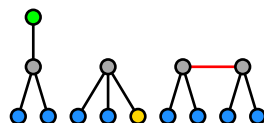
ID: 461  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



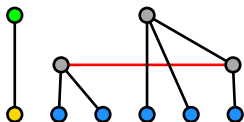
ID: 464  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



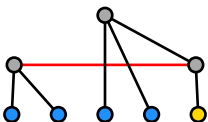
ID: 483  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



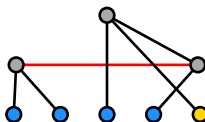
ID: 462  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



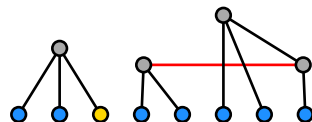
ID: 467  $V_1^n$   
n: 7 4 1



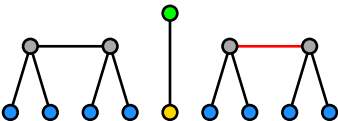
ID: 468  $V_1^n$   
n: 7 4 1



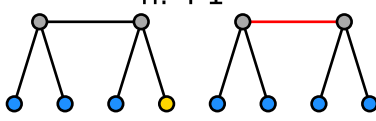
ID: 489  $V_1^n$   
n: 4 1



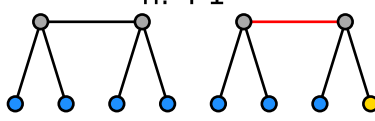
ID: 482  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



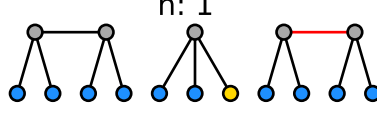
ID: 481  $V_1^n$   
n: 4 1



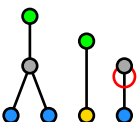
ID: 496  $V_1^n$   
n: 4 1



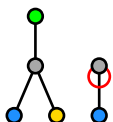
ID: 508  $V_1^n$   
n: 1



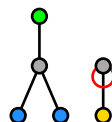
ID: 521  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 10 7 4



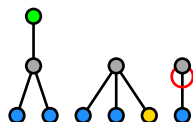
ID: 523  $V_1^{n-1} \boxtimes V_1$   
n: 10 7 4 1



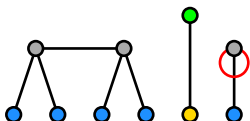
ID: 524  $V_1^{n-1} \boxtimes V_1$   
n: 10 7 4 1



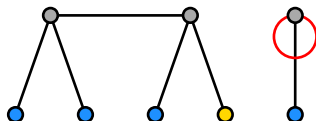
ID: 532  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



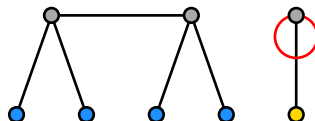
ID: 531  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



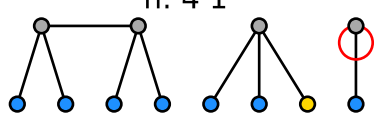
ID: 529  $V_1^n$   
n: 7 4 1



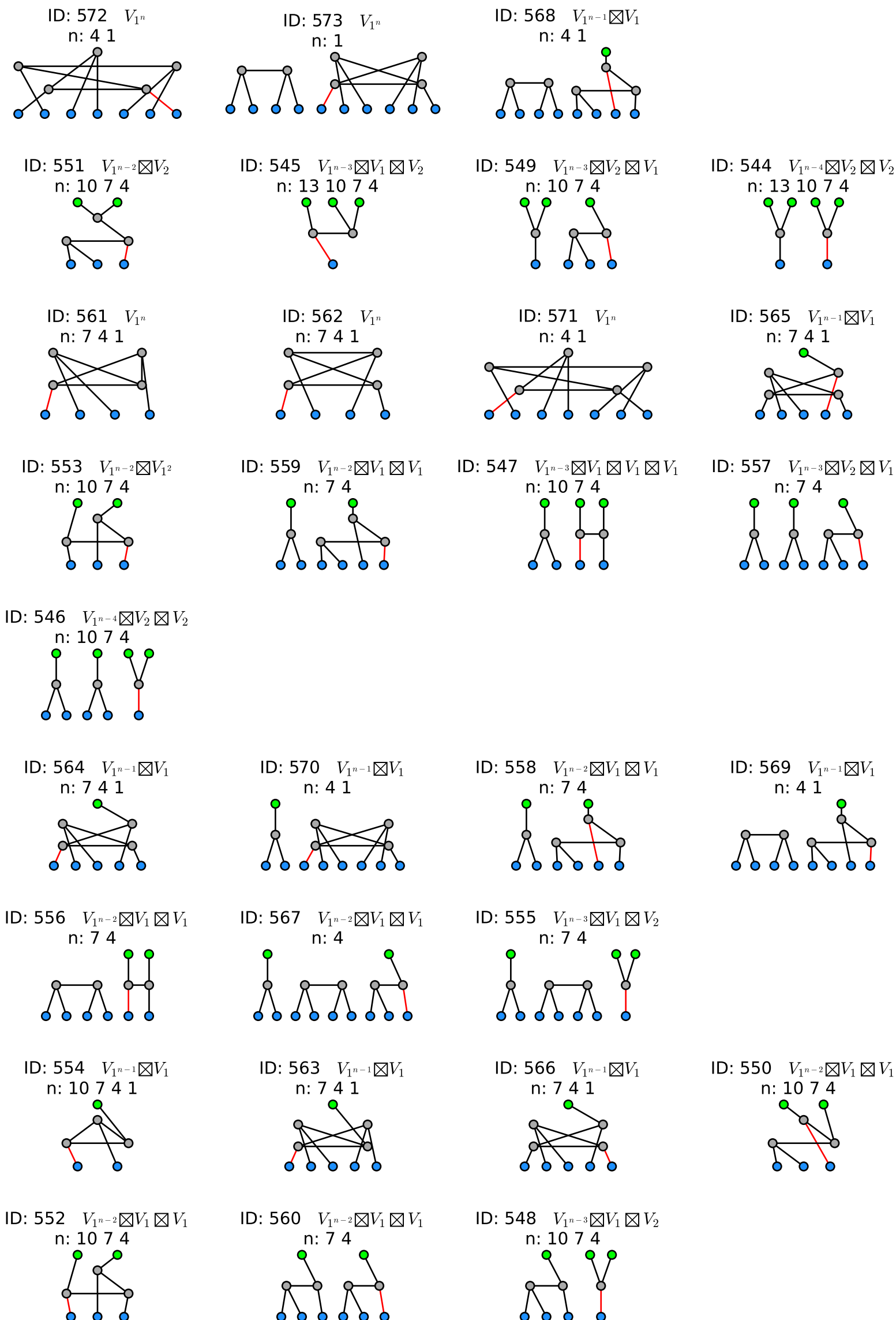
ID: 530  $V_1^n$   
n: 7 4 1



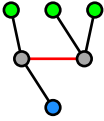
ID: 539  $V_1^n$   
n: 4 1



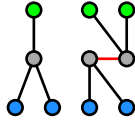
----- edges: 14-n    graphs: 73    -----  
 --- A2 case with weight 13 relations    relation groups: 6 ---



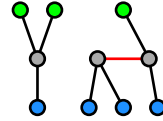
ID: 574  $V_1^{n-3} \boxtimes V_1 \boxtimes V_2$   
n: 13 10 7 4



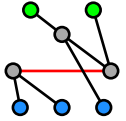
ID: 576  $V_1^{n-3} \boxtimes V_1 \boxtimes V_2$   
n: 10 7 4



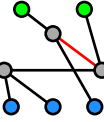
ID: 575  $V_1^{n-3} \boxtimes V_2 \boxtimes V_1$   
n: 10 7 4



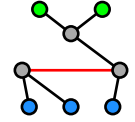
ID: 577  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 10 7 4



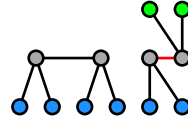
ID: 578  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 10 7 4



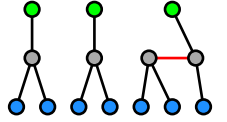
ID: 579  $V_1^{n-2} \boxtimes V_2$   
n: 10 7 4



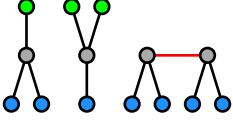
ID: 588  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



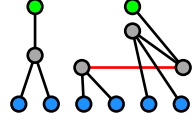
ID: 584  $V_1^{n-3} \boxtimes V_2 \boxtimes V_1$   
n: 7 4



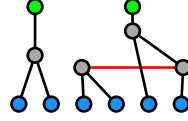
ID: 580  $V_1^{n-3} \boxtimes V_1 \boxtimes V_2$   
n: 7 4



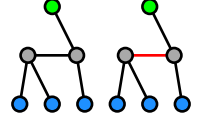
ID: 586  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



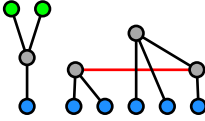
ID: 587  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



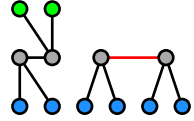
ID: 585  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



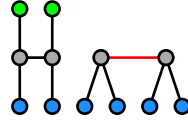
ID: 583  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



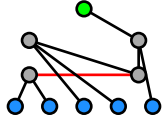
ID: 581  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



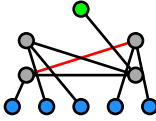
ID: 582  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



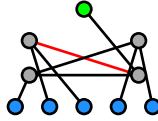
ID: 589  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



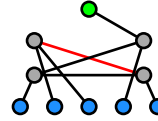
ID: 590  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



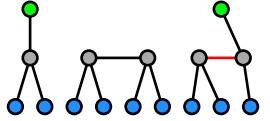
ID: 591  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



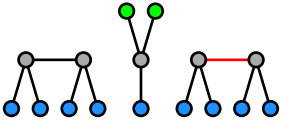
ID: 592  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



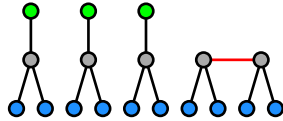
ID: 597  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 4



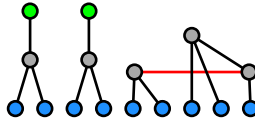
ID: 593  $V_1^{n-2} \boxtimes V_2$   
n: 4



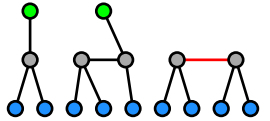
ID: 594  $V_1^{n-3} \boxtimes V_3$   
n: 4



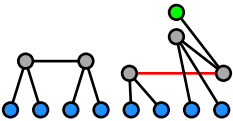
ID: 596  $V_1^{n-2} \boxtimes V_2$   
n: 4



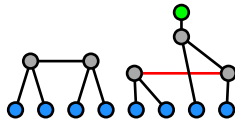
ID: 595  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 4



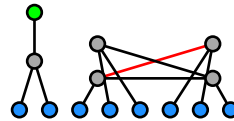
ID: 601  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



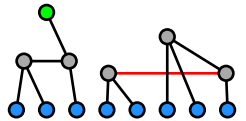
ID: 602  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



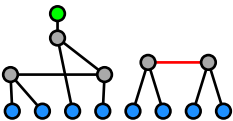
ID: 600  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



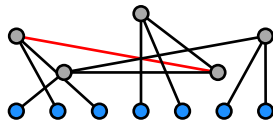
ID: 599  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



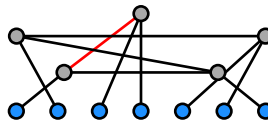
ID: 598  $V_1^{n-1} \boxtimes V_1$   
n: 4 1



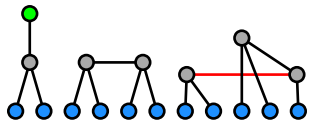
ID: 603  $V_1^n$   
n: 4 1



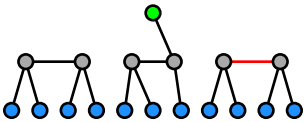
ID: 604  $V_1^n$   
n: 4 1



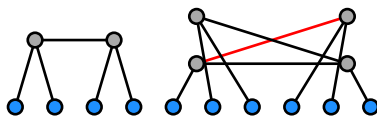
ID: 606  $V_1^{n-1} \boxtimes V_1$   
n: 1



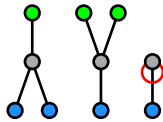
ID: 605  $V_1^{n-1} \boxtimes V_1$   
n: 1



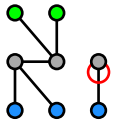
ID: 607  $V_1^n$   
n: 1



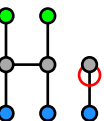
ID: 608  $V_1^{n-3} \boxtimes V_1 \boxtimes V_2$   
n: 10 7 4



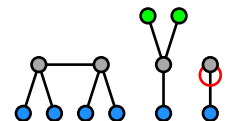
ID: 609  $V_1^{n-2} \boxtimes V_2$   
n: 10 7 4



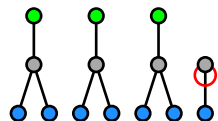
ID: 610  $V_1^{n-2} \boxtimes V_2$   
n: 10 7 4



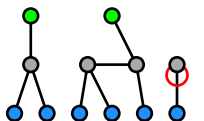
ID: 611  $V_1^{n-2} \boxtimes V_2$   
n: 7 4



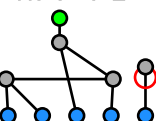
ID: 612  $V_1^{n-3} \boxtimes V_3$   
n: 7 4



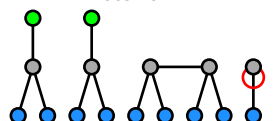
ID: 613  $V_1^{n-2} \boxtimes V_1 \boxtimes V_1$   
n: 7 4



ID: 614  $V_1^{n-1} \boxtimes V_1$   
n: 7 4 1



ID: 615  $V_1^{n-2} \boxtimes V_2$   
n: 4



ID: 616  $V_1^{n-1} \boxtimes V_1$   
n: 4 1

