------- g,n: 9,1   graphs: 364   eliminated: 360 ------- Euler Characteristic (without resolving relations):

--------- $6V_1 - 2V_0 \boxtimes V_1$ ---------
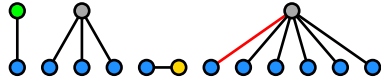
--------- edges: 9   graphs: 10 ---------

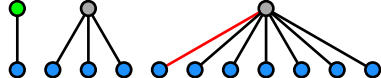------- A3 case   graphs: 10 -------
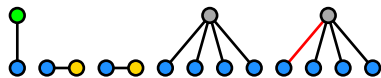
ID: 129 V_1
$\mapsto$ ID 152

ID: 130 V_1
$\mapsto$ ID 148
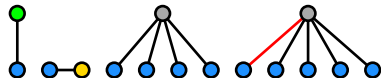
ID: 131 V_1
$\mapsto$ ID 153

ID: 132 V_1
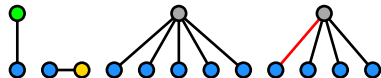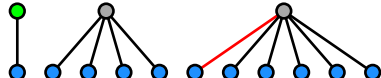$\mapsto$ ID 166

ID: 133 V_1
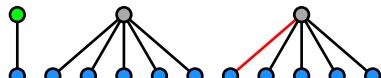$\mapsto$ ID 167

ID: 134 V_1
$\mapsto$ ID 170

ID: 135 V_1
$\mapsto$ ID 171

ID: 136 V_1
$\mapsto$ ID 178

ID: 137 V_1
$\mapsto$ ID 181

ID: 138 V_1
$\mapsto$ ID 183

ID: 139 V_1
$\mapsto$ ID 291

ID: 140 V_1
$\mapsto$ ID 219

ID: 141 V_1
$\mapsto$ ID 292

ID: 142 V_1
$\mapsto$ ID 215

ID: 143 V_1
$\mapsto$ ID 224

ID: 144 V_1
$\mapsto$ ID 220

ID: 145 V_1
$\mapsto$ ID 221

ID: 146 V_1
$\mapsto$ ID 225

ID: 147 V_1
$\mapsto$ ID 243

ID: 148 V_1
$\leftarrow$ ID 130

ID: 149 V_1
$\mapsto$ ID 232

ID: 150 V_1
$\mapsto$ ID 233

ID: 151 V_1
$\mapsto$ ID 234

ID: 152 V_1
$\leftarrow$ ID 129

ID: 153 V_1
$\leftarrow$ ID 131

ID: 154 V_1
$\mapsto$ ID 235

ID: 155 V_1
$\mapsto$ ID 238

ID: 156 V_1
$\mapsto$ ID 239

ID: 157 V_1
$\mapsto$ ID 240

ID: 158 V_1
$\mapsto$ ID 241

ID: 159 V_1
$\mapsto$ ID 242

ID: 160 V_1
$\mapsto$ ID 245

ID: 161 V_1
$\mapsto$ ID 247

ID: 162 V_1
$\mapsto$ ID 249

ID: 163 V_1
$\mapsto$ ID 250

ID: 164 V_1
$\mapsto$ ID 253

ID: 165 V_1
$\mapsto$ ID 251

ID: 166 V_1
$\leftarrow$ ID 132

ID: 167 V_1
$\leftarrow$ ID 133

ID: 168 V_1
$\mapsto$ ID 255

ID: 169 V_1
$\mapsto$ ID 256

ID: 170 V_1
$\leftarrow$ ID 134

ID: 171 V_1
$\leftarrow$ ID 135

ID: 172 V_1
$\mapsto$ ID 257

ID: 173 V_1
$\mapsto$ ID 261

ID: 174 V_1
$\mapsto$ ID 262

ID: 175 V_1
$\mapsto$ ID 263

ID: 176 V_1
$\mapsto$ ID 264

ID: 177 V_1
$\mapsto$ ID 265

ID: 178 V_1
$\leftarrow$ ID 136

ID: 179 V_1
$\mapsto$ ID 266

ID: 180 V_1
$\mapsto$ ID 267

ID: 181 V_1
$\leftarrow$ ID 137

ID: 182 V_1
$\mapsto$ ID 268

ID: 183 V_1
$\leftarrow$ ID 138

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

ID: 184 V_1 $\mapsto$ ID 303

ID: 185 V_1 $\mapsto$ ID 310

ID: 186 V_1 $\mapsto$ ID 316

ID: 187 V_1 $\mapsto$ ID 317

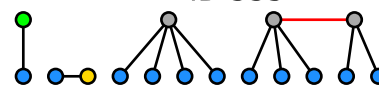ID: 188 V_1 $\mapsto$ ID 323
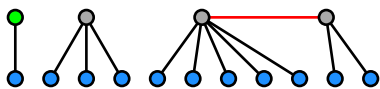
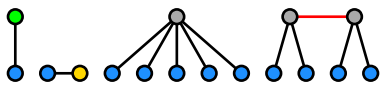ID: 189 V_1 $\mapsto$ ID 322
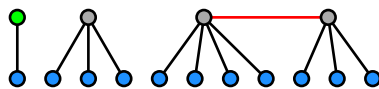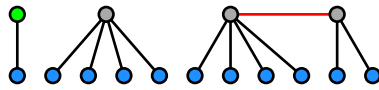
ID: 190 V_1 $\mapsto$ ID 327
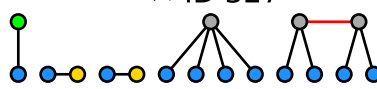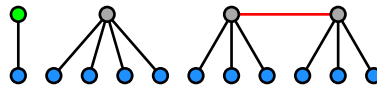
ID: 193 V_1 $\mapsto$ ID 335
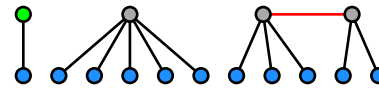
ID: 191 V_1 $\mapsto$ ID 329
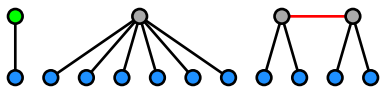
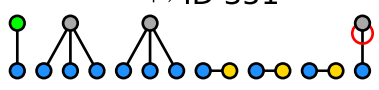ID: 195 V_1 $\mapsto$ ID 341

ID: 196 V_1 $\mapsto$ ID 342

ID: 194 V_1 $\mapsto$ ID 337

ID: 192 V_1 $\mapsto$ ID 333

ID: 197 V_1 $\mapsto$ ID 351

ID: 198 V_1 $\mapsto$ ID 356

ID: 199 V_1 $\mapsto$ ID 358

ID: 200 V_1 $\mapsto$ ID 363
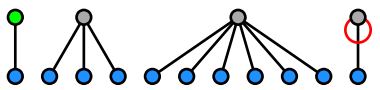
ID: 201 V_1 $\mapsto$ ID 364
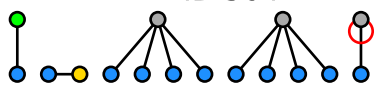
ID: 202 V_1 $\mapsto$ ID 366
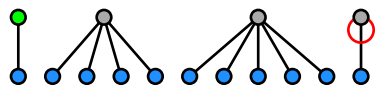
ID: 206 V_1
$\mapsto$ ID 410
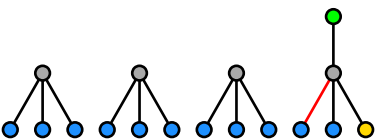
ID: 215 V_1
$\leftarrow$ID 142
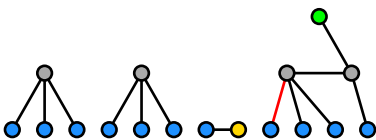
ID: 216 V_1
$\mapsto$ ID 465
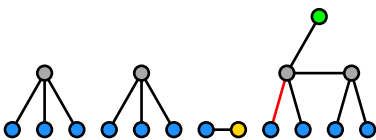
ID: 217 V_1
$\mapsto$ ID 384
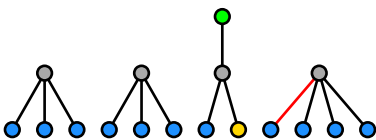
ID: 218 V_1
$\mapsto$ ID 422
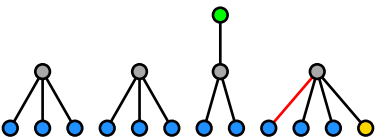
ID: 219 V_1
$\leftarrow$ID 140
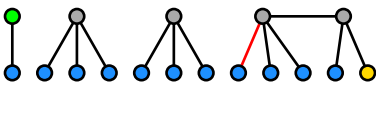
ID: 220 V_1
$\leftarrow$ID 144
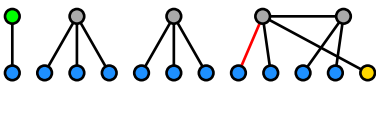
ID: 221 V_1
$\leftarrow$ID 145
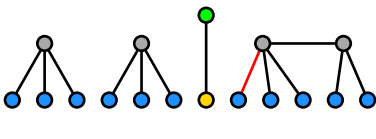
ID: 222 V_1
$\mapsto$ ID 429
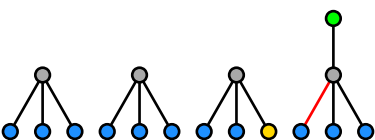
ID: 223 V_1
$\mapsto$ ID 386
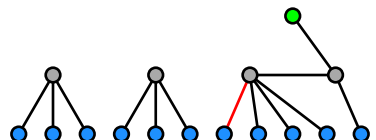
ID: 224 V_1
$\leftarrow$ID 143
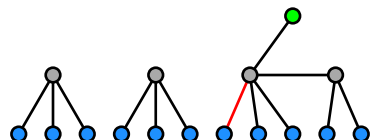
ID: 225 V_1
$\leftarrow$ID 146
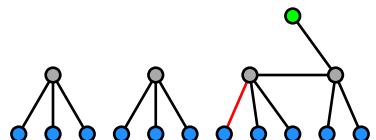
ID: 226 V_1
$\mapsto$ ID 385
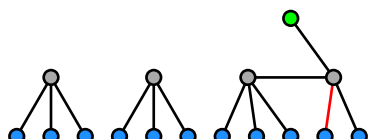
ID: 232 V_1
$\leftarrow$ID 149
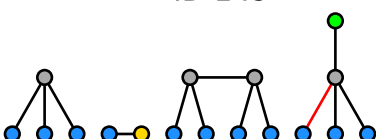
ID: 233 V_1
$\leftarrow$ID 150
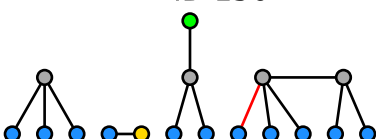
ID: 234 V_1
$\leftarrow$ID 151
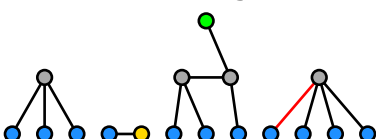
ID: 235 V_1
$\leftarrow$ID 154
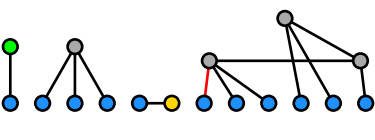
ID: 236 V_1
$\mapsto$ ID 392
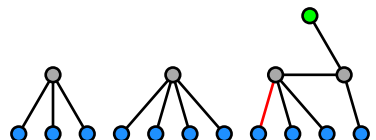
ID: 237 V_1
$\mapsto$ ID 393
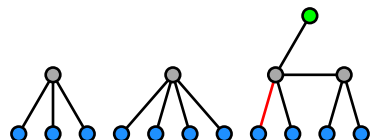
ID: 238 V_1
$\leftarrow$ID 155
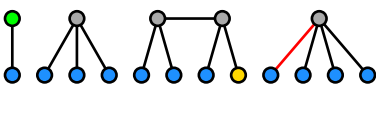
ID: 239 V_1
$\leftarrow$ID 156
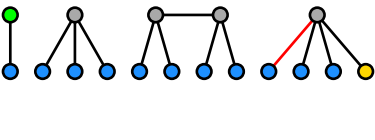
ID: 240 V_1
$\leftarrow$ID 157
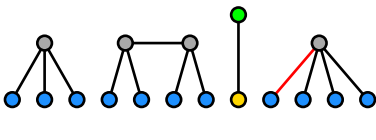
ID: 241 V_1
$\leftarrow$ID 158
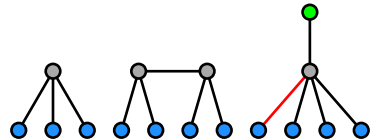
ID: 242 V_1
$\leftarrow$ID 159
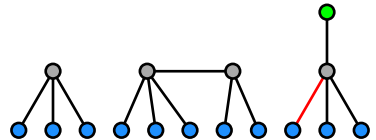
ID: 243 V_1
$\leftarrow$ID 147
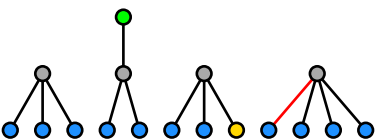
ID: 244 V_1
$\mapsto$ ID 394
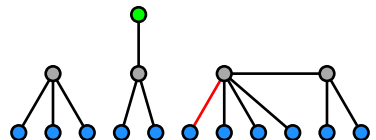
ID: 245 V_1
$\leftarrow$ID 160
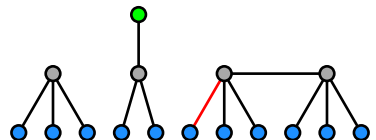
ID: 246 V_1
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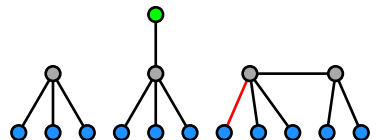
ID: 247 V_1
$\leftarrow$ID 161
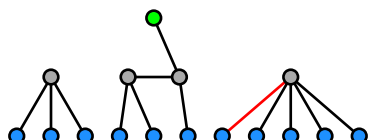
ID: 248 V_1
$\mapsto$ ID 396
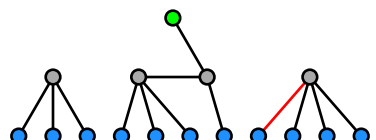
ID: 249 V_1
$\leftarrow$ID 162
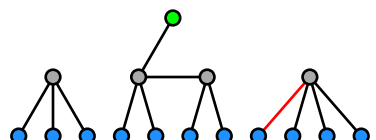
ID: 250 V_1
$\leftarrow$ID 163
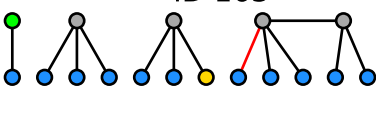
ID: 251 V_1
$\leftarrow$ID 165
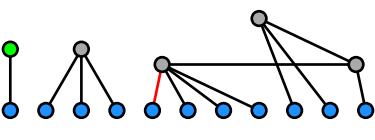
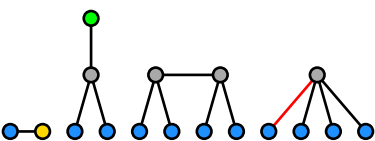ID: 252 V_1
$\mapsto$ ID 398
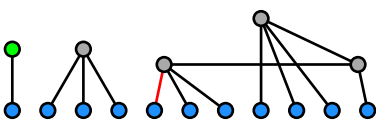
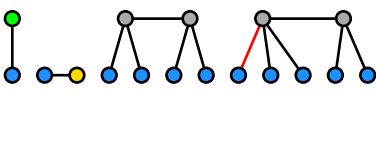ID: 253 V_1
$\leftarrow$ID 164
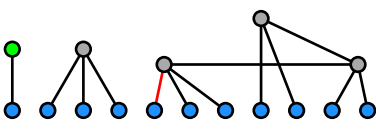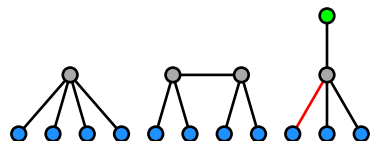
ID: 254 V_1
$\mapsto$ ID 397
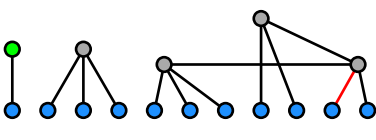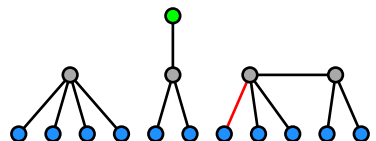
ID: 255 V_1
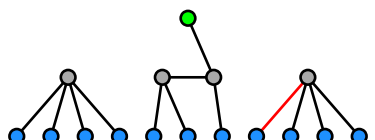$\leftarrow$ID 168

ID: 256 V_1
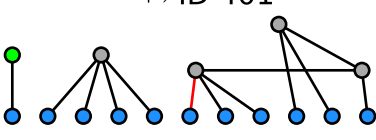$\leftarrow$ID 169

ID: 257 V_1
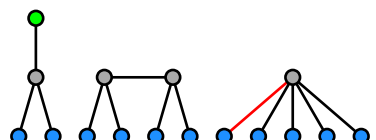$\leftarrow$ID 172

ID: 258 V_1
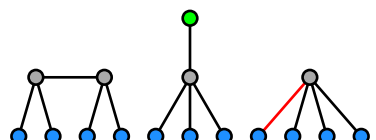$\mapsto$ ID 399

ID: 259 V_1
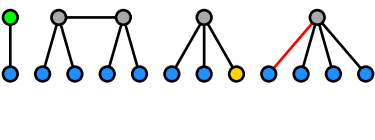$\mapsto$ ID 400

ID: 260 V_1
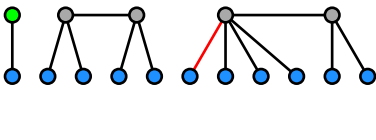$\mapsto$ ID 401

ID: 261 V_1
$\leftarrow$ID 173

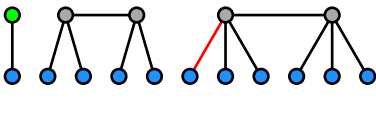ID: 262 V_1
$\leftarrow$ID 174
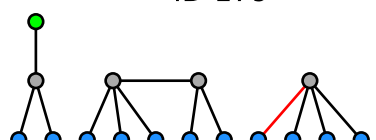
ID: 263 V_1
$\leftarrow$ID 175
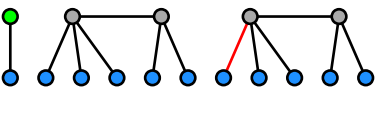
ID: 264 V_1
$\leftarrow$ID 176
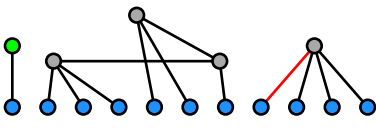
ID: 265 V_1
$\leftarrow$ID 177

ID: 266 V_1
$\leftarrow$ID 179

ID: 267 V_1
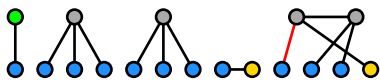$\leftarrow$ID 180

ID: 268 V_1
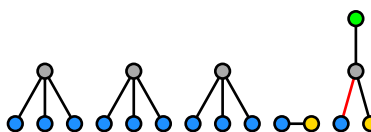$\leftarrow$ID 182

------- A2 case with weight 13 relations   relation groups: 4 -------
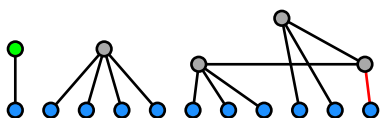
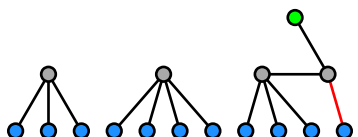ID: 274 V_1
$\mapsto$ ID 425

ID: 270 V_1
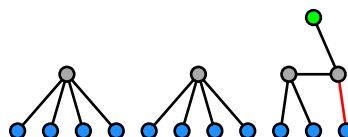$\mapsto$ ID 525

ID: 273 V_1
Redundant

ID: 287 V_1
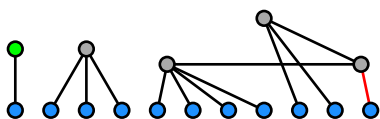$\mapsto$ ID 446

ID: 283 V_1
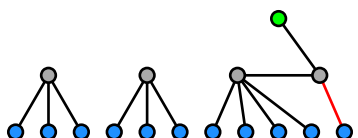$\mapsto$ ID 438

ID: 286 V_1
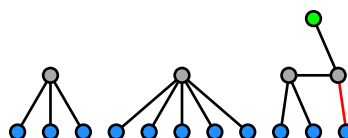$\mapsto$ ID 444 RED

ID: 285 V_1
$\mapsto$ ID 441
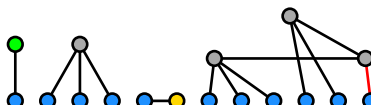
ID: 278 V_1
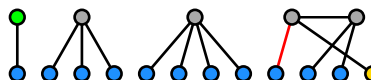$\mapsto$ ID 430

ID: 284 V_1
$\mapsto$ ID 439 RED

ID: 277 V_1
$\mapsto$ ID 424

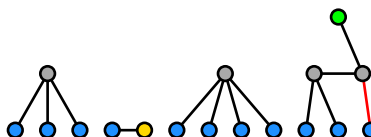ID: 281 V_1
$\mapsto$ ID 434 RED

ID: 282 V_1
$\mapsto$ ID 437

ID: 276 V_1
$\mapsto$ ID 421
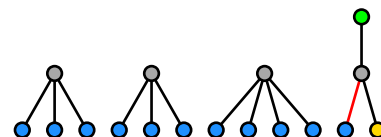
ID: 275 V_1
Redundant
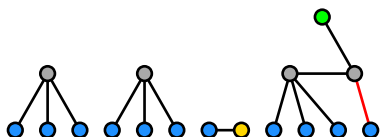
ID: 280 V_1
$\mapsto$ ID 433 RED

------- B,Birr cases without weight 11 relations   graphs: 60 -------

ID: 291 V_1 ←ID 139
ID: 293 V_1 ↦ ID 469
ID: 294 V_1 ↦ ID 471
ID: 295 V_1 ↦ ID 423

ID: 298 V_1 ↦ ID 472
ID: 299 V_1 ↦ ID 474
ID: 300 V_1 ↦ ID 473
ID: 301 V_1 ↦ ID 484

ID: 310 V_1 ←ID 185
ID: 311 V_1 ↦ ID 491
ID: 307 V_1 ↦ ID 488
ID: 302 V_1 ↦ ID 481

ID: 315 V_1 ↦ ID 496
ID: 317 V_1 ←ID 187
ID: 316 V_1 ←ID 186
ID: 319 V_1 ↦ ID 498

ID: 320 V_1 ↦ ID 499
ID: 312 V_1 ↦ ID 492
ID: 313 V_1 ↦ ID 494
ID: 314 V_1 ↦ ID 493

ID: 308 V_1 ↦ ID 487
ID: 306 V_1 ↦ ID 486
ID: 321 V_1 ↦ ID 504
ID: 324 V_1 ↦ ID 505

ID: 325 V_1 ↦ ID 506
ID: 322 V_1 ←ID 189
ID: 326 V_1 ↦ ID 503
ID: 323 V_1 ←ID 188

ID: 327 V_1 ←ID 190
ID: 328 V_1 ↦ ID 507
ID: 338 V_1 ↦ ID 514
ID: 335 V_1 ←ID 193

ID: 329 V_1 ←ID 191
ID: 340 V_1 ↦ ID 517
ID: 336 V_1 ↦ ID 513
ID: 330 V_1 ↦ ID 509

ID: 343 V_1 ↦ ID 518
ID: 345 V_1 ↦ ID 521
ID: 344 V_1 ↦ ID 519
ID: 341 V_1 ←ID 195

ID: 342 V_1 ←ID 196
ID: 332 V_1 ↦ ID 511
ID: 339 V_1 ↦ ID 516
ID: 337 V_1 ←ID 194

ID: 333 V_1 ←ID 192
ID: 334 V_1 ↦ ID 512
ID: 349 V_1 ↦ ID 535
ID: 350 V_1 ↦ ID 530

ID: 355 V_1 ↦ ID 536
ID: 356 V_1 ←ID 198
ID: 357 V_1 ↦ ID 538
ID: 358 V_1 ←ID 199

ID: 359 V_1 ↦ ID 539
ID: 361 V_1 ↦ ID 542
ID: 362 V_1 ↦ ID 543
ID: 363 V_1 ←ID 200

ID: 364 V_1 ←ID 201
ID: 365 V_1 ↦ ID 544
ID: 366 V_1 ←ID 202
ID: 367 V_1 ↦ ID 545

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

ID: 289 V_1
↦ ID 466
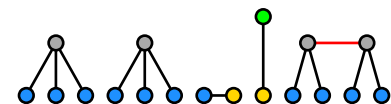
ID: 288 V_1
Redundant

ID: 292 V_1
←ID 141

ID: 303 V_1
←ID 184

ID: 290 V_1
↦ ID 462
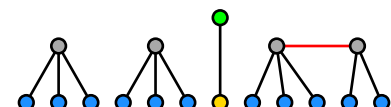
ID: 296 V_1
↦ ID 467
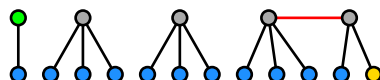
ID: 297 V_1
Redundant
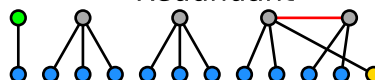
ID: 309 V_1
↦ ID 490
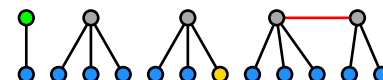
ID: 305 V_1
↦ ID 483
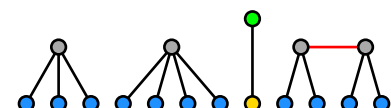
ID: 304 V_1
↦ ID 482

ID: 318 V_1
↦ ID 497 RED
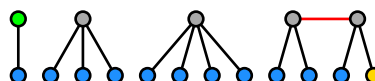
ID: 331 V_1
↦ ID 510

ID: 348 V_1
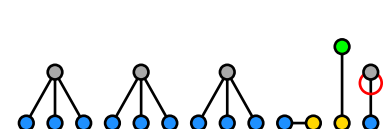
ID: 346 V_1
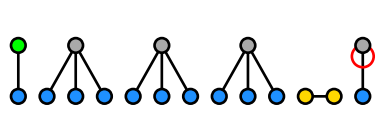
ID: 347 V_1
Redundant
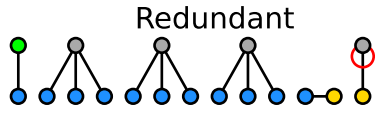
ID: 351 V_1
←ID 197
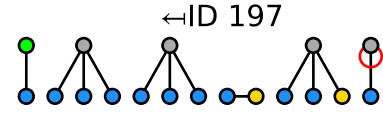
ID: 354 V_1
↦ ID 533
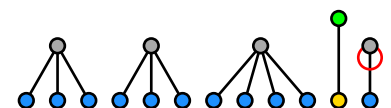
ID: 352 V_1
↦ ID 531
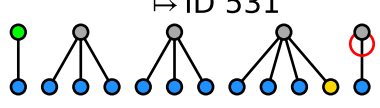
ID: 353 V_1
Redundant
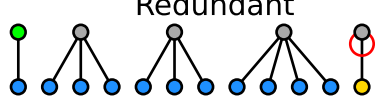
ID: 360 V_1
↦ ID 541
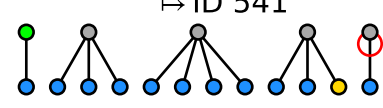
---------- edges: 12   graphs: 116   ----------
------- A3 case   graphs: 14   -------

ID: 383 V_1
$\mapsto$ ID 565
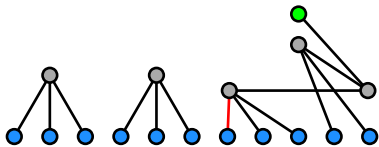
ID: 384 V_1
$\leftarrow$ID 217
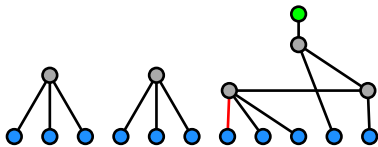
ID: 385 V_1
$\leftarrow$ID 226
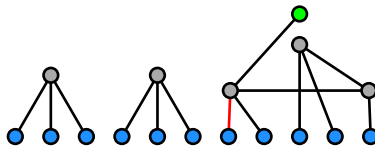
ID: 386 V_1
$\leftarrow$ID 223
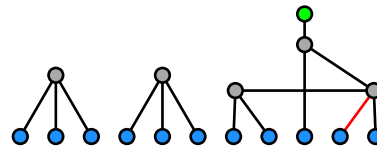
ID: 392 V_1
$\leftarrow$ID 236
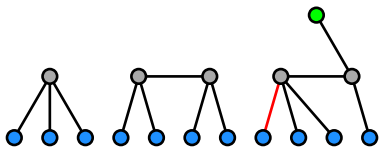
ID: 393 V_1
$\leftarrow$ID 237
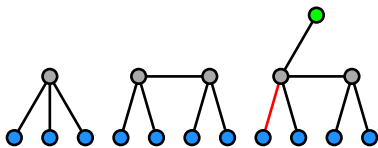
ID: 394 V_1
$\leftarrow$ID 244
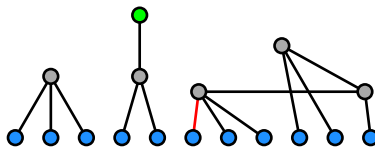
ID: 395 V_1
$\leftarrow$ID 246
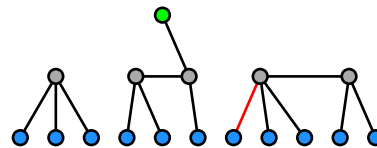
ID: 396 V_1
$\leftarrow$ID 248
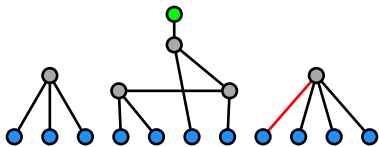
ID: 397 V_1
$\leftarrow$ID 254
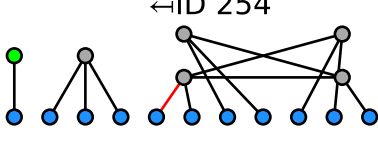
ID: 398 V_1
$\leftarrow$ID 252
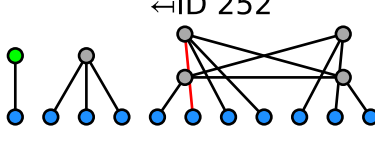
ID: 399 V_1
$\leftarrow$ID 258
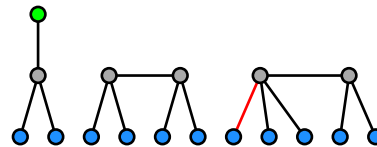
ID: 400 V_1
$\leftarrow$ID 259
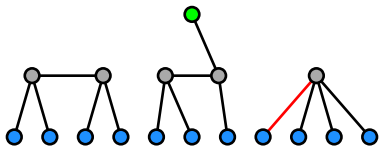
ID: 401 V_1
$\leftarrow$ID 260
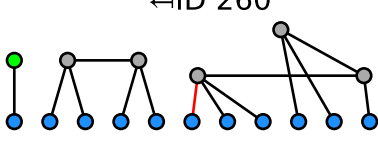
ID: 425 V_1
←ID 274
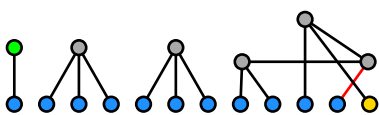
ID: 411 V_1
↦ ID 556
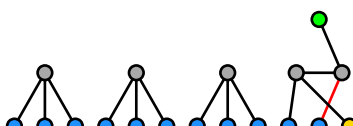
ID: 426 V_1
Redundant
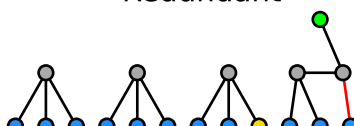
ID: 429 V_1
←ID 222
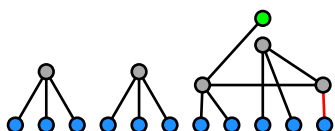
ID: 410 V_1
←ID 206
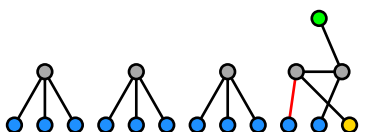
ID: 422 V_1
←ID 218
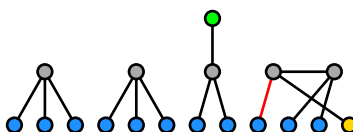
ID: 420 V_1
Redundant
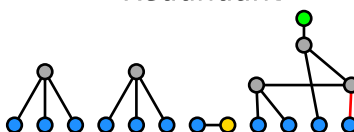
ID: 424 V_1
←ID 277
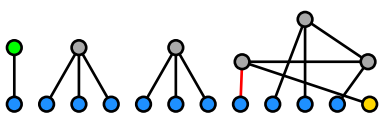
ID: 434 V_1
←ID 281 RED
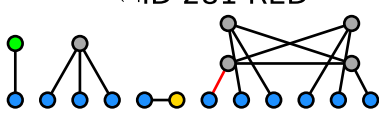
ID: 437 V_1
←ID 282
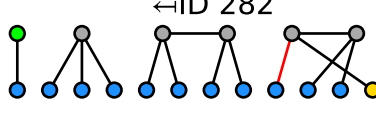
ID: 421 V_1
←ID 276
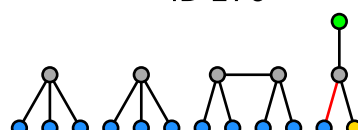
ID: 419 V_1
Redundant
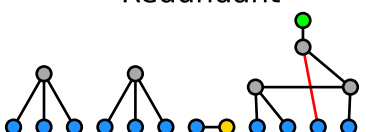
ID: 433 V_1
←ID 280 RED
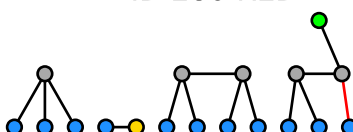
ID: 428 V_1
↦ ID 566
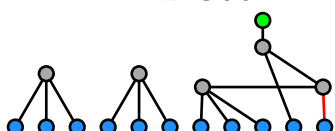
ID: 440 V_1
↦ ID 572
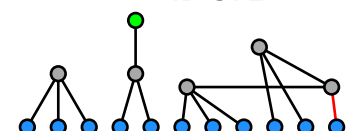
ID: 436 V_1
↦ ID 571 RED
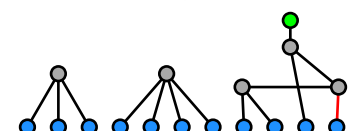
ID: 443 V_1
↦ ID 574
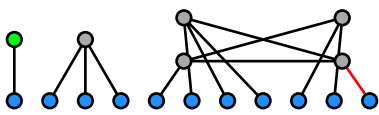
ID: 445 V_1
↦ ID 575 RED
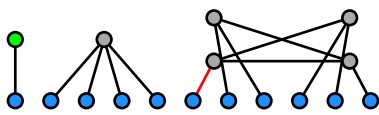
ID: 446 V_1
←ID 287
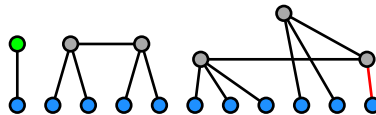
ID: 435 V_1
↦ ID 570 RED
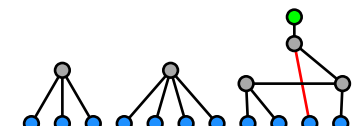
ID: 438 V_1
←ID 283
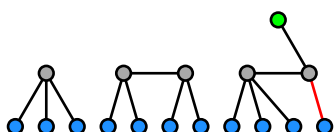
ID: 444 V_1
←ID 286 RED
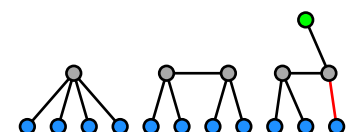
ID: 423 V_1
←ID 295
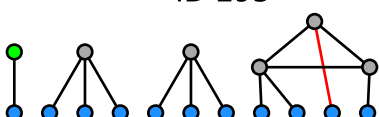
ID: 441 V_1
←ID 285
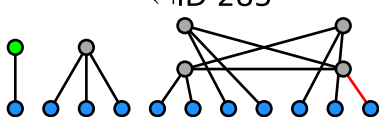
ID: 442 V_1
↦ ID 573 RED
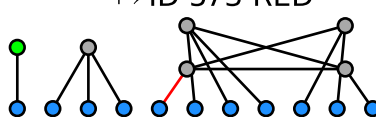
ID: 427 V_1
Redundant

ID: 430 V_1
←ID 278
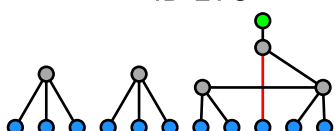
ID: 439 V_1
←ID 284 RED
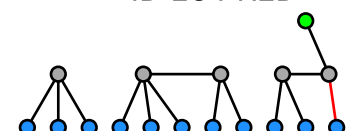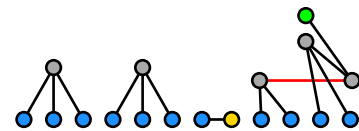
ID: 465 V_1 ←ID 216
ID: 466 V_1 ←ID 289
ID: 469 V_1 ←ID 293
ID: 472 V_1 ←ID 298
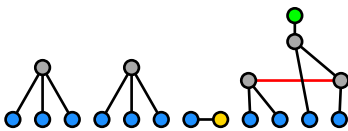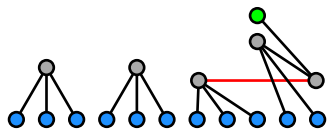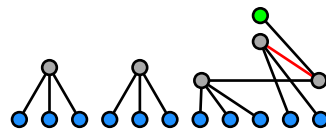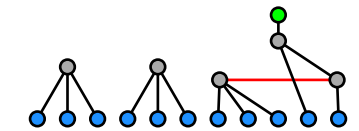
ID: 473 V_1 ←ID 300
ID: 470 V_1 ↦ ID 591
ID: 475 V_1 ↦ ID 592
ID: 471 V_1 ←ID 294
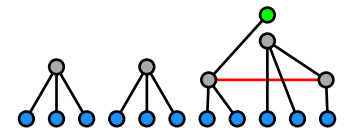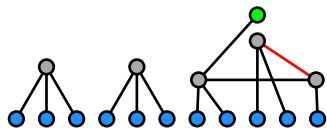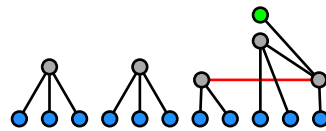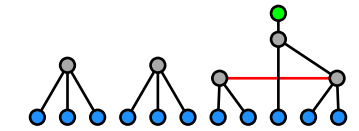
ID: 474 V_1 ←ID 299
ID: 491 V_1 ←ID 311
ID: 488 V_1 ←ID 307
ID: 481 V_1 ←ID 302
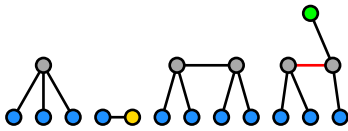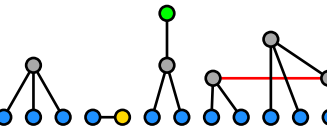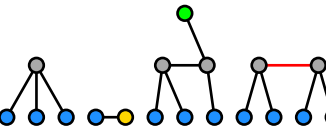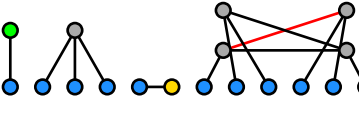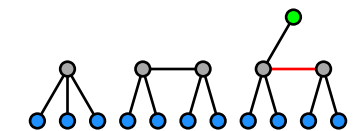
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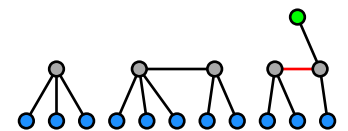ID: 500 V_1 ↦ ID 603
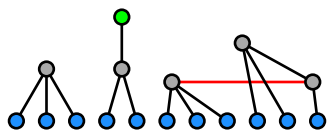ID: 501 V_1 ↦ ID 604
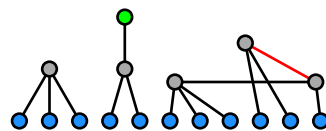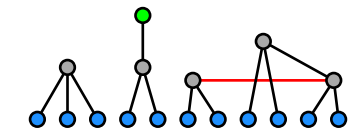ID: 498 V_1 ←ID 319
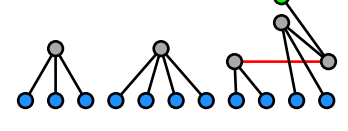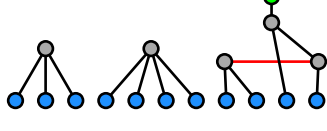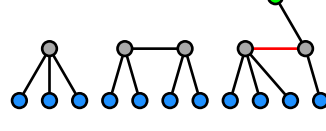
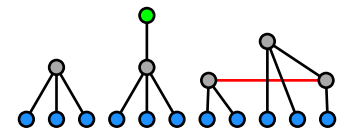ID: 499 V_1 ←ID 320
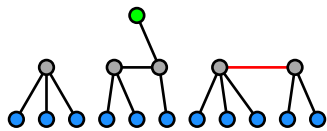ID: 492 V_1 ←ID 312
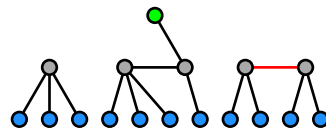ID: 493 V_1 ←ID 314
ID: 495 V_1 ↦ ID 602

ID: 494 V_1 ←ID 313
ID: 489 V_1 ↦ ID 601
ID: 487 V_1 ←ID 308
ID: 485 V_1 ↦ ID 600
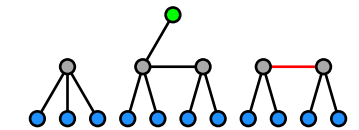
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ID: 502 V_1 ↦ ID 605
ID: 503 V_1 ←ID 326
ID: 505 V_1 ←ID 324
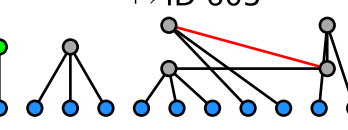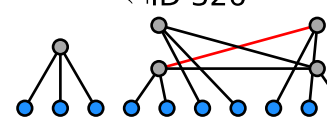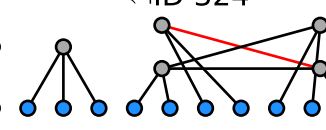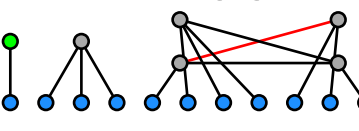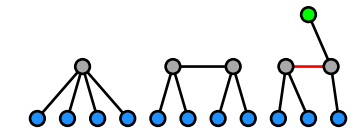
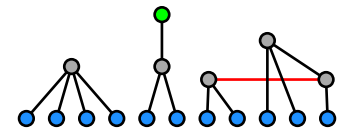ID: 506 V_1 ←ID 325
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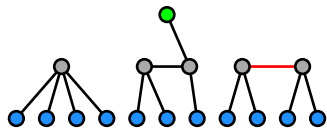ID: 507 V_1 ←ID 328
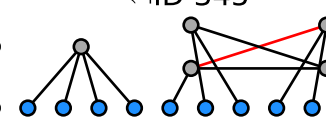ID: 514 V_1 ←ID 338
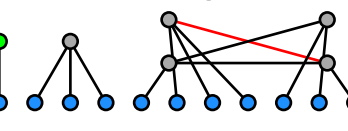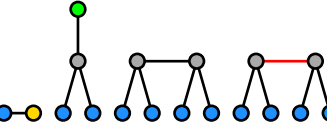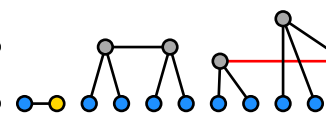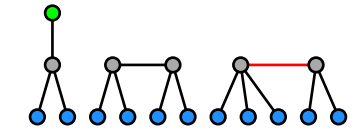
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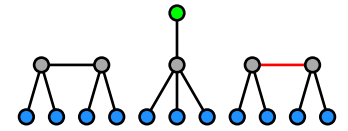ID: 515 V_1 ↦ ID 608
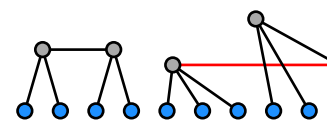ID: 508 V_1 ↦ ID 607
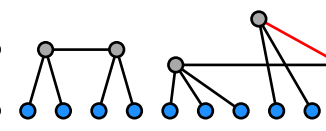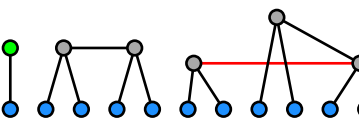ID: 521 V_1 ←ID 345

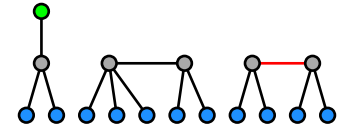ID: 513 V_1 ←ID 336
ID: 509 V_1 ←ID 330
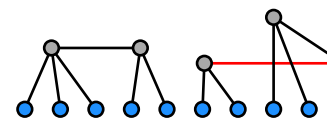ID: 518 V_1 ←ID 343
ID: 520 V_1 ↦ ID 609
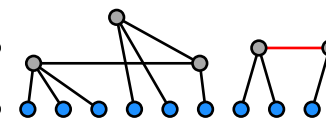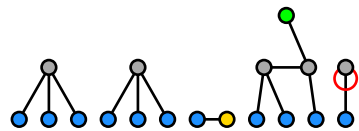
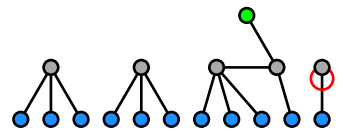ID: 519 V_1 ←ID 344
ID: 511 V_1 ←ID 332
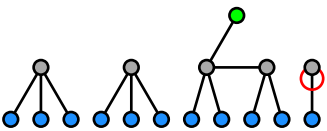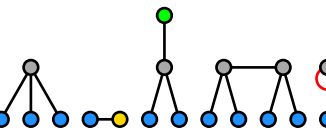ID: 516 V_1 ←ID 339
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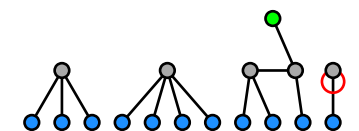
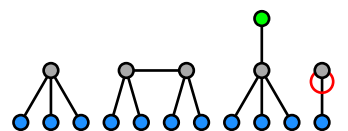ID: 530 V_1 ←ID 350
ID: 535 V_1 ←ID 349
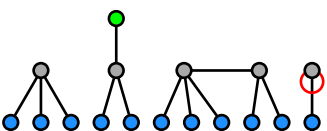ID: 536 V_1 ←ID 355
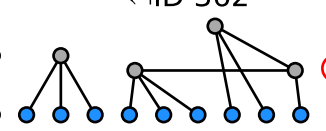ID: 538 V_1 ←ID 357

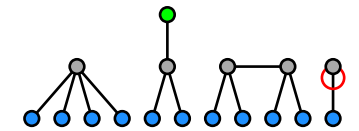ID: 539 V_1 ←ID 359
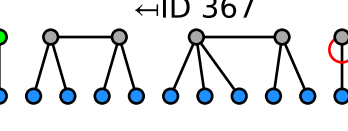ID: 540 V_1 ↦ ID 618
ID: 542 V_1 ←ID 361
ID: 543 V_1 ←ID 362

ID: 544 V_1 ←ID 365
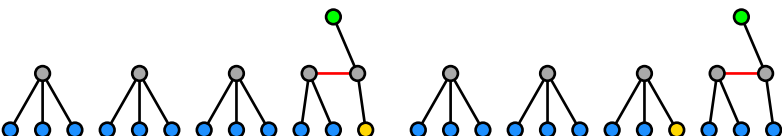ID: 545 V_1 ←ID 367

------- B,Birr cases with weight 11 relations   relation groups: 6 -------
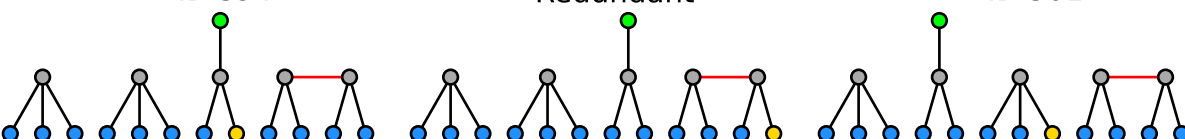
ID: 451 V_1
Redundant

ID: 463 V_1
$\mapsto$ ID 593

ID: 461 V_1
$\mapsto$ ID 594

ID: 464 V_1
Redundant
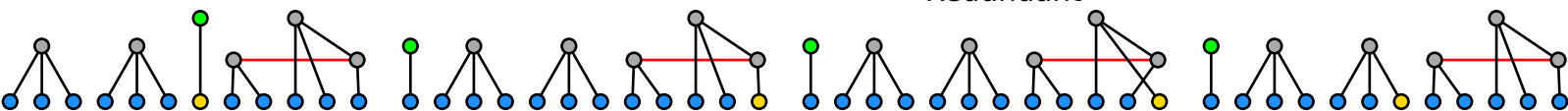
ID: 484 V_1
$\leftarrow$ID 301

ID: 462 V_1
$\leftarrow$ID 290

ID: 467 V_1
$\leftarrow$ID 296
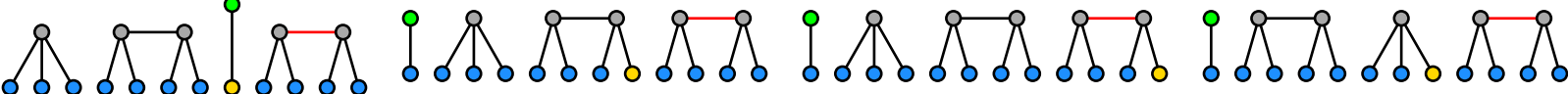
ID: 468 V_1
Redundant

ID: 490 V_1
$\leftarrow$ID 309

ID: 483 V_1
$\leftarrow$ID 305

ID: 482 V_1
$\leftarrow$ID 304

ID: 497 V_1
$\leftarrow$ID 318 RED

ID: 510 V_1
$\leftarrow$ID 331

ID: 525 V_1
$\leftarrow$ID 270

ID: 526 V_1
Redundant

ID: 534 V_1
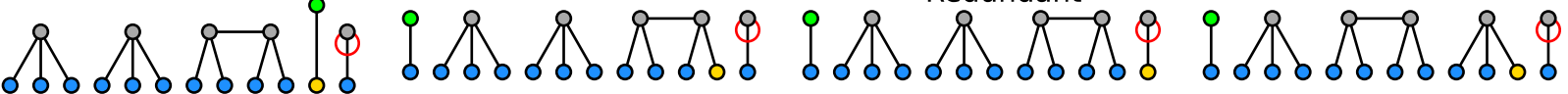$\mapsto$ ID 616

ID: 533 V_1
$\leftarrow$ID 354

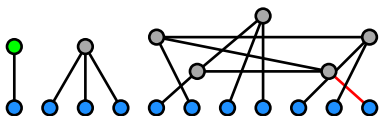ID: 531 V_1
$\leftarrow$ID 352
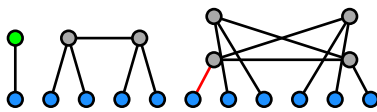
ID: 532 V_1
Redundant

ID: 541 V_1
$\leftarrow$ID 360

--------- edges: 13 graphs: 29 ---------
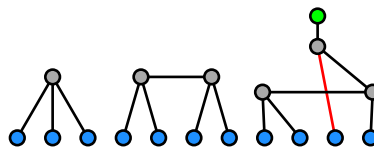------- A2 case with weight 13 relations relation groups: 4 -------
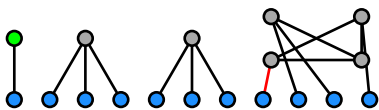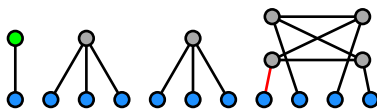
ID: 574 V_1
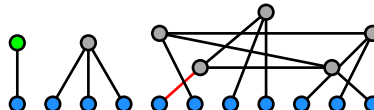←ID 443

ID: 575 V_1
←ID 445 RED

ID: 570 V_1
←ID 435 RED

ID: 563 V_1
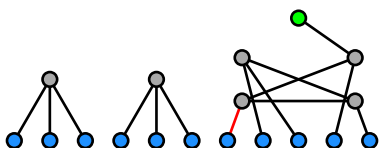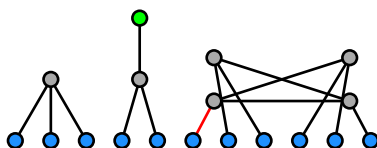
ID: 564 V_1
Redundant

ID: 573 V_1
←ID 442 RED

ID: 567 V_1
Redundant
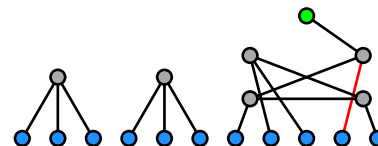
ID: 566 V_1
←ID 428

ID: 572 V_1
←ID 440

ID: 571 V_1
←ID 436 RED
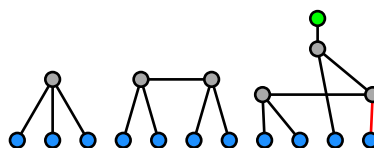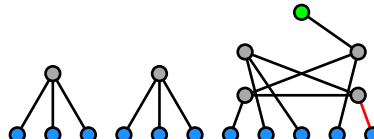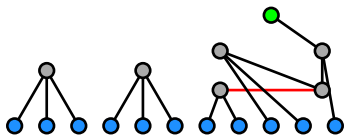
ID: 556 V_1
←ID 411
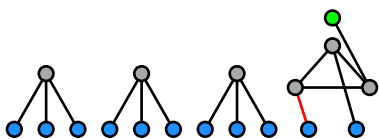
ID: 565 V_1
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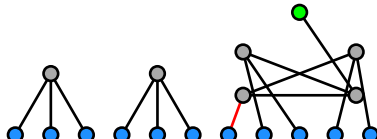
ID: 568 V_1
Redundant

------ B,Birr cases without weight 11 relations   graphs: 16 ------
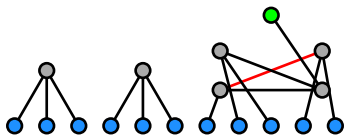
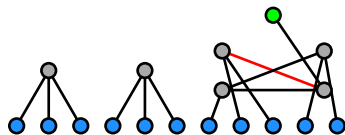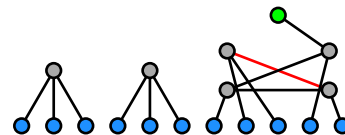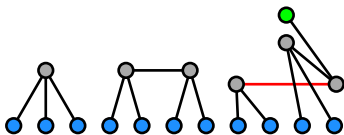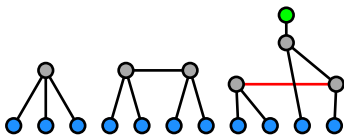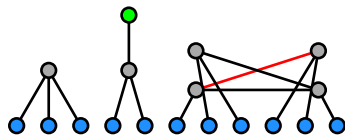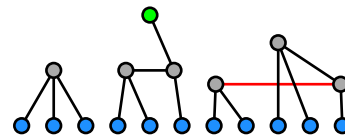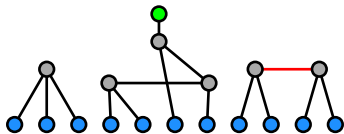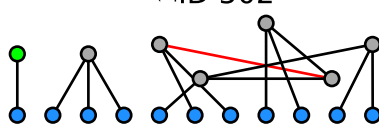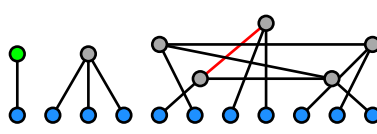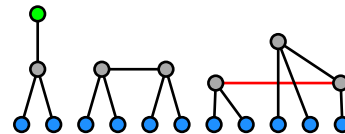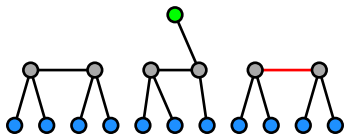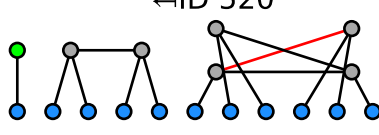ID: 591 V_1 ←ID 470
ID: 592 V_1 ←ID 475
ID: 593 V_1 ←ID 463
ID: 594 V_1 ←ID 461
ID: 603 V_1 ←ID 500
ID: 604 V_1 ←ID 501
ID: 602 V_1 ←ID 495
ID: 601 V_1 ←ID 489
ID: 600 V_1 ←ID 485
ID: 605 V_1 ←ID 502
ID: 606 V_1
ID: 608 V_1 ←ID 515
ID: 607 V_1 ←ID 508
ID: 609 V_1 ←ID 520
ID: 616 V_1 ←ID 534
ID: 618 V_1 ←ID 540