

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 12. 203. 215.]
81 cord_individual_obj[indivial_i,:] = [ 17. 8. 119. 127.]
82 cord_individual_obj[indivial_i,:] = [ 18. 9. 148. 157.]
83 cord_individual_obj[indivial_i,:] = [ 19. 10. 135. 145.]
84 cord_individual_obj[indivial_i,:] = [ 20. 11. 101. 112.]
85 cord_individual_obj[indivial_i,:] = [ 21. 10. 141. 151.]
86 cord_individual_obj[indivial_i,:] = [ 22. 8. 118. 126.]
87 cord_individual_obj[indivial_i,:] = [ 23. 9. 66. 75.]
88 cord_individual_obj[indivial_i,:] = [ 24. 11. 109. 120.]
89
90 min(cord_individual_obj[:,3]) = 75.0
91 historl_G_best_iter[iter, 3] = 75.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 8. 201. 209.]
96 cord_individual_obj[indivial_i,:] = [ 1. 9. 131. 140.]
97 cord_individual_obj[indivial_i,:] = [ 2. 9. 131. 140.]
98 cord_individual_obj[indivial_i,:] = [ 3. 9. 92. 101.]
99 cord_individual_obj[indivial_i,:] = [ 4. 10. 94. 104.]
100 cord_individual_obj[indivial_i,:] = [ 5. 11. 170. 181.]
101 cord_individual_obj[indivial_i,:] = [ 6. 7. 157. 164.]
102 cord_individual_obj[indivial_i,:] = [ 7. 10. 122. 132.]
103 cord_individual_obj[indivial_i,:] = [ 8. 9. 142. 151.]
104 cord_individual_obj[indivial_i,:] = [ 9. 9. 127. 136.]
105 cord_individual_obj[indivial_i,:] = [ 10. 9. 142. 151.]
106 cord_individual_obj[indivial_i,:] = [ 11. 13. 166. 179.]
107 cord_individual_obj[indivial_i,:] = [ 12. 10. 148. 158.]
108 cord_individual_obj[indivial_i,:] = [ 13. 12. 111. 123.]
109 cord_individual_obj[indivial_i,:] = [ 14. 8. 239. 247.]
110 cord_individual_obj[indivial_i,:] = [ 15. 7. 200. 207.]
111 cord_individual_obj[indivial_i,:] = [ 16. 9. 66. 75.]
112 cord_individual_obj[indivial_i,:] = [ 17. 8. 161. 169.]
113 cord_individual_obj[indivial_i,:] = [ 18. 10. 108. 118.]
114 cord_individual_obj[indivial_i,:] = [ 19. 9. 233. 242.]
115 cord_individual_obj[indivial_i,:] = [ 20. 9. 145. 154.]
116 cord_individual_obj[indivial_i,:] = [ 21. 8. 156. 164.]
117 cord_individual_obj[indivial_i,:] = [ 22. 9. 175. 184.]
118 cord_individual_obj[indivial_i,:] = [ 23. 10. 132. 142.]
119 cord_individual_obj[indivial_i,:] = [ 24. 11. 120. 131.]
120
121 min(cord_individual_obj[:,3]) = 75.0
122 historl_G_best_iter[iter, 3] = 75.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 9. 164. 173.]
127 cord_individual_obj[indivial_i,:] = [ 1. 11. 137. 148.]
128 cord_individual_obj[indivial_i,:] = [ 2. 11. 83. 94.]
129 cord_individual_obj[indivial_i,:] = [ 3. 10. 73. 83.]
130 cord_individual_obj[indivial_i,:] = [ 4. 11. 126. 137.]
131 cord_individual_obj[indivial_i,:] = [ 5. 9. 162. 171.]
132 cord_individual_obj[indivial_i,:] = [ 6. 9. 190. 199.]
133 cord_individual_obj[indivial_i,:] = [ 7. 8. 161. 169.]
134 cord_individual_obj[indivial_i,:] = [ 8. 9. 162. 171.]
135 cord_individual_obj[indivial_i,:] = [ 9. 11. 210. 221.]
136 cord_individual_obj[indivial_i,:] = [ 10. 11. 114. 125.]
137 cord_individual_obj[indivial_i,:] = [ 11. 9. 192. 201.]
138 cord_individual_obj[indivial_i,:] = [ 12. 10. 93. 103.]
139 cord_individual_obj[indivial_i,:] = [ 13. 9. 105. 114.]
140 cord_individual_obj[indivial_i,:] = [ 14. 9. 66. 75.]
141 cord_individual_obj[indivial_i,:] = [ 15. 9. 163. 172.]
142 cord_individual_obj[indivial_i,:] = [ 16. 9. 219. 228.]
143 cord_individual_obj[indivial_i,:] = [ 17. 11. 207. 218.]
144 cord_individual_obj[indivial_i,:] = [ 18. 12. 103. 115.]
145 cord_individual_obj[indivial_i,:] = [ 19. 11. 169. 180.]
146 cord_individual_obj[indivial_i,:] = [ 20. 8. 157. 165.]
147 cord_individual_obj[indivial_i,:] = [ 21. 9. 113. 122.]
148 cord_individual_obj[indivial_i,:] = [ 22. 9. 138. 147.]
149 cord_individual_obj[indivial_i,:] = [ 23. 9. 106. 115.]
150 cord_individual_obj[indivial_i,:] = [ 24. 9. 133. 142.]
151
152 min(cord_individual_obj[:,3]) = 75.0
153 historl_G_best_iter[iter, 3] = 75.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 10. 88. 98.]
158 cord_individual_obj[indivial_i,:] = [ 1. 10. 189. 199.]
159 cord_individual_obj[indivial_i,:] = [ 2. 8. 120. 128.]
160 cord_individual_obj[indivial_i,:] = [ 3. 11. 135. 146.]
161 cord_individual_obj[indivial_i,:] = [ 4. 10. 132. 142.]
162 cord_individual_obj[indivial_i,:] = [ 5. 10. 122. 132.]
163 cord_individual_obj[indivial_i,:] = [ 6. 10. 164. 174.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 9. 133. 142.]
165 cord_individual_obj[indivial_i,:] = [ 8. 9. 106. 115.]
166 cord_individual_obj[indivial_i,:] = [ 9. 9. 133. 142.]
167 cord_individual_obj[indivial_i,:] = [ 10. 8. 154. 162.]
168 cord_individual_obj[indivial_i,:] = [ 11. 10. 131. 141.]
169 cord_individual_obj[indivial_i,:] = [ 12. 9. 139. 148.]
170 cord_individual_obj[indivial_i,:] = [ 13. 10. 120. 130.]
171 cord_individual_obj[indivial_i,:] = [ 14. 9. 167. 176.]
172 cord_individual_obj[indivial_i,:] = [ 15. 8. 167. 175.]
173 cord_individual_obj[indivial_i,:] = [ 16. 9. 66. 75.]
174 cord_individual_obj[indivial_i,:] = [ 17. 10. 152. 162.]
175 cord_individual_obj[indivial_i,:] = [ 18. 9. 101. 110.]
176 cord_individual_obj[indivial_i,:] = [ 19. 10. 115. 125.]
177 cord_individual_obj[indivial_i,:] = [ 20. 7. 111. 118.]
178 cord_individual_obj[indivial_i,:] = [ 21. 11. 142. 153.]
179 cord_individual_obj[indivial_i,:] = [ 22. 10. 132. 142.]
180 cord_individual_obj[indivial_i,:] = [ 23. 11. 111. 122.]
181 cord_individual_obj[indivial_i,:] = [ 24. 9. 110. 119.]
182
183 min(cord_individual_obj[:,3]) = 75.0
184 historl_G_best_iter[iter,3] = 75.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 10. 119. 129.]
189 cord_individual_obj[indivial_i,:] = [ 1. 9. 66. 75.]
190 cord_individual_obj[indivial_i,:] = [ 2. 13. 141. 154.]
191 cord_individual_obj[indivial_i,:] = [ 3. 10. 143. 153.]
192 cord_individual_obj[indivial_i,:] = [ 4. 10. 78. 88.]
193 cord_individual_obj[indivial_i,:] = [ 5. 11. 145. 156.]
194 cord_individual_obj[indivial_i,:] = [ 6. 11. 111. 122.]
195 cord_individual_obj[indivial_i,:] = [ 7. 10. 87. 97.]
196 cord_individual_obj[indivial_i,:] = [ 8. 13. 147. 160.]
197 cord_individual_obj[indivial_i,:] = [ 9. 8. 128. 136.]
198 cord_individual_obj[indivial_i,:] = [ 10. 10. 88. 98.]
199 cord_individual_obj[indivial_i,:] = [ 11. 11. 121. 132.]
200 cord_individual_obj[indivial_i,:] = [ 12. 8. 140. 148.]
201 cord_individual_obj[indivial_i,:] = [ 13. 10. 91. 101.]
202 cord_individual_obj[indivial_i,:] = [ 14. 9. 140. 149.]
203 cord_individual_obj[indivial_i,:] = [ 15. 8. 134. 142.]
204 cord_individual_obj[indivial_i,:] = [ 16. 9. 168. 177.]
205 cord_individual_obj[indivial_i,:] = [ 17. 8. 159. 167.]
206 cord_individual_obj[indivial_i,:] = [ 18. 8. 138. 146.]
207 cord_individual_obj[indivial_i,:] = [ 19. 11. 146. 157.]
208 cord_individual_obj[indivial_i,:] = [ 20. 11. 163. 174.]
209 cord_individual_obj[indivial_i,:] = [ 21. 11. 89. 100.]
210 cord_individual_obj[indivial_i,:] = [ 22. 11. 124. 135.]
211 cord_individual_obj[indivial_i,:] = [ 23. 9. 86. 95.]
212 cord_individual_obj[indivial_i,:] = [ 24. 10. 120. 130.]
213
214 min(cord_individual_obj[:,3]) = 75.0
215 historl_G_best_iter[iter,3] = 75.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 10. 109. 119.]
220 cord_individual_obj[indivial_i,:] = [ 1. 11. 105. 116.]
221 cord_individual_obj[indivial_i,:] = [ 2. 10. 194. 204.]
222 cord_individual_obj[indivial_i,:] = [ 3. 10. 111. 121.]
223 cord_individual_obj[indivial_i,:] = [ 4. 10. 173. 183.]
224 cord_individual_obj[indivial_i,:] = [ 5. 10. 166. 176.]
225 cord_individual_obj[indivial_i,:] = [ 6. 8. 203. 211.]
226 cord_individual_obj[indivial_i,:] = [ 7. 9. 148. 157.]
227 cord_individual_obj[indivial_i,:] = [ 8. 9. 136. 145.]
228 cord_individual_obj[indivial_i,:] = [ 9. 9. 189. 198.]
229 cord_individual_obj[indivial_i,:] = [ 10. 11. 117. 128.]
230 cord_individual_obj[indivial_i,:] = [ 11. 10. 150. 160.]
231 cord_individual_obj[indivial_i,:] = [ 12. 11. 239. 250.]
232 cord_individual_obj[indivial_i,:] = [ 13. 10. 157. 167.]
233 cord_individual_obj[indivial_i,:] = [ 14. 11. 106. 117.]
234 cord_individual_obj[indivial_i,:] = [ 15. 10. 105. 115.]
235 cord_individual_obj[indivial_i,:] = [ 16. 9. 66. 75.]
236 cord_individual_obj[indivial_i,:] = [ 17. 10. 93. 103.]
237 cord_individual_obj[indivial_i,:] = [ 18. 9. 137. 146.]
238 cord_individual_obj[indivial_i,:] = [ 19. 10. 93. 103.]
239 cord_individual_obj[indivial_i,:] = [ 20. 9. 216. 225.]
240 cord_individual_obj[indivial_i,:] = [ 21. 13. 139. 152.]
241 cord_individual_obj[indivial_i,:] = [ 22. 10. 136. 146.]
242 cord_individual_obj[indivial_i,:] = [ 23. 10. 162. 172.]
243 cord_individual_obj[indivial_i,:] = [ 24. 10. 161. 171.]
244
245 min(cord_individual_obj[:,3]) = 75.0
246 historl_G_best_iter[iter,3] = 75.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 9. 170. 179.]
251 cord_individual_obj[indivial_i, :] = [ 1. 13. 135. 148.]
252 cord_individual_obj[indivial_i, :] = [ 2. 9. 143. 152.]
253 cord_individual_obj[indivial_i, :] = [ 3. 10. 101. 111.]
254 cord_individual_obj[indivial_i, :] = [ 4. 11. 115. 126.]
255 cord_individual_obj[indivial_i, :] = [ 5. 11. 92. 103.]
256 cord_individual_obj[indivial_i, :] = [ 6. 9. 68. 77.]
257 cord_individual_obj[indivial_i, :] = [ 7. 11. 206. 217.]
258 cord_individual_obj[indivial_i, :] = [ 8. 9. 139. 148.]
259 cord_individual_obj[indivial_i, :] = [ 9. 9. 87. 96.]
260 cord_individual_obj[indivial_i, :] = [ 10. 10. 91. 101.]
261 cord_individual_obj[indivial_i, :] = [ 11. 9. 175. 184.]
262 cord_individual_obj[indivial_i, :] = [ 12. 9. 66. 75.]
263 cord_individual_obj[indivial_i, :] = [ 13. 11. 104. 115.]
264 cord_individual_obj[indivial_i, :] = [ 14. 10. 132. 142.]
265 cord_individual_obj[indivial_i, :] = [ 15. 9. 168. 177.]
266 cord_individual_obj[indivial_i, :] = [ 16. 9. 168. 177.]
267 cord_individual_obj[indivial_i, :] = [ 17. 10. 133. 143.]
268 cord_individual_obj[indivial_i, :] = [ 18. 11. 112. 123.]
269 cord_individual_obj[indivial_i, :] = [ 19. 9. 149. 158.]
270 cord_individual_obj[indivial_i, :] = [ 20. 10. 128. 138.]
271 cord_individual_obj[indivial_i, :] = [ 21. 9. 167. 176.]
272 cord_individual_obj[indivial_i, :] = [ 22. 9. 151. 160.]
273 cord_individual_obj[indivial_i, :] = [ 23. 12. 121. 133.]
274 cord_individual_obj[indivial_i, :] = [ 24. 11. 147. 158.]
275

276 min(cord_individual_obj[:, 3]) = 75.0
277 historl_G_best_iter[iter, 3] = 75.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 9. 99. 108.]
282 cord_individual_obj[indivial_i, :] = [ 1. 10. 156. 166.]
283 cord_individual_obj[indivial_i, :] = [ 2. 10. 143. 153.]
284 cord_individual_obj[indivial_i, :] = [ 3. 10. 248. 258.]
285 cord_individual_obj[indivial_i, :] = [ 4. 9. 111. 120.]
286 cord_individual_obj[indivial_i, :] = [ 5. 11. 108. 119.]
287 cord_individual_obj[indivial_i, :] = [ 6. 9. 167. 176.]
288 cord_individual_obj[indivial_i, :] = [ 7. 9. 66. 75.]
289 cord_individual_obj[indivial_i, :] = [ 8. 8. 201. 209.]
290 cord_individual_obj[indivial_i, :] = [ 9. 9. 186. 195.]
291 cord_individual_obj[indivial_i, :] = [ 10. 10. 130. 140.]
292 cord_individual_obj[indivial_i, :] = [ 11. 9. 113. 122.]
293 cord_individual_obj[indivial_i, :] = [ 12. 9. 174. 183.]
294 cord_individual_obj[indivial_i, :] = [ 13. 8. 138. 146.]
295 cord_individual_obj[indivial_i, :] = [ 14. 9. 167. 176.]
296 cord_individual_obj[indivial_i, :] = [ 15. 9. 126. 135.]
297 cord_individual_obj[indivial_i, :] = [ 16. 9. 125. 134.]
298 cord_individual_obj[indivial_i, :] = [ 17. 10. 76. 86.]
299 cord_individual_obj[indivial_i, :] = [ 18. 8. 124. 132.]
300 cord_individual_obj[indivial_i, :] = [ 19. 9. 159. 168.]
301 cord_individual_obj[indivial_i, :] = [ 20. 9. 147. 156.]
302 cord_individual_obj[indivial_i, :] = [ 21. 9. 120. 129.]
303 cord_individual_obj[indivial_i, :] = [ 22. 9. 157. 166.]
304 cord_individual_obj[indivial_i, :] = [ 23. 10. 136. 146.]
305 cord_individual_obj[indivial_i, :] = [ 24. 10. 233. 243.]
306

307 min(cord_individual_obj[:, 3]) = 75.0
308 historl_G_best_iter[iter, 3] = 75.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 9. 197. 206.]
313 cord_individual_obj[indivial_i, :] = [ 1. 9. 134. 143.]
314 cord_individual_obj[indivial_i, :] = [ 2. 9. 144. 153.]
315 cord_individual_obj[indivial_i, :] = [ 3. 9. 66. 75.]
316 cord_individual_obj[indivial_i, :] = [ 4. 12. 128. 140.]
317 cord_individual_obj[indivial_i, :] = [ 5. 8. 162. 170.]
318 cord_individual_obj[indivial_i, :] = [ 6. 8. 168. 176.]
319 cord_individual_obj[indivial_i, :] = [ 7. 9. 122. 131.]
320 cord_individual_obj[indivial_i, :] = [ 8. 8. 195. 203.]
321 cord_individual_obj[indivial_i, :] = [ 9. 10. 206. 216.]
322 cord_individual_obj[indivial_i, :] = [ 10. 8. 125. 133.]
323 cord_individual_obj[indivial_i, :] = [ 11. 10. 135. 145.]
324 cord_individual_obj[indivial_i, :] = [ 12. 10. 156. 166.]
325 cord_individual_obj[indivial_i, :] = [ 13. 11. 82. 93.]
326 cord_individual_obj[indivial_i, :] = [ 14. 9. 190. 199.]
327 cord_individual_obj[indivial_i, :] = [ 15. 10. 168. 178.]
328 cord_individual_obj[indivial_i, :] = [ 16. 7. 182. 189.]
329 cord_individual_obj[indivial_i, :] = [ 17. 10. 68. 78.]
330 cord_individual_obj[indivial_i, :] = [ 18. 10. 81. 91.]
331 cord_individual_obj[indivial_i, :] = [ 19. 9. 116. 125.]

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332 cord_individual_obj[indivial_i, :] = [ 20.  8. 165. 173.]
333 cord_individual_obj[indivial_i, :] = [ 21.  9.  93. 102.]
334 cord_individual_obj[indivial_i, :] = [ 22. 10. 180. 190.]
335 cord_individual_obj[indivial_i, :] = [ 23.  9. 133. 142.]
336 cord_individual_obj[indivial_i, :] = [ 24. 10. 119. 129.]
337
338 min(cord_individual_obj[:, 3]) = 75.0
339 histol_G_best_iter[iter, 3] = 75.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i, :] = [ 0. 10. 176. 186.]
344 cord_individual_obj[indivial_i, :] = [ 1.  9. 130. 139.]
345 cord_individual_obj[indivial_i, :] = [ 2.  8. 172. 180.]
346 cord_individual_obj[indivial_i, :] = [ 3.  8. 172. 180.]
347 cord_individual_obj[indivial_i, :] = [ 4. 11. 143. 154.]
348 cord_individual_obj[indivial_i, :] = [ 5. 11. 160. 171.]
349 cord_individual_obj[indivial_i, :] = [ 6.  9. 156. 165.]
350 cord_individual_obj[indivial_i, :] = [ 7.  9. 234. 243.]
351 cord_individual_obj[indivial_i, :] = [ 8.  9. 109. 118.]
352 cord_individual_obj[indivial_i, :] = [ 9.  9. 66. 75.]
353 cord_individual_obj[indivial_i, :] = [10. 10. 160. 170.]
354 cord_individual_obj[indivial_i, :] = [11.  9. 163. 172.]
355 cord_individual_obj[indivial_i, :] = [12. 10. 202. 212.]
356 cord_individual_obj[indivial_i, :] = [13.  9. 83. 92.]
357 cord_individual_obj[indivial_i, :] = [14.  8. 158. 166.]
358 cord_individual_obj[indivial_i, :] = [15.  9. 211. 220.]
359 cord_individual_obj[indivial_i, :] = [16. 10. 150. 160.]
360 cord_individual_obj[indivial_i, :] = [17. 10. 147. 157.]
361 cord_individual_obj[indivial_i, :] = [18. 12. 75. 87.]
362 cord_individual_obj[indivial_i, :] = [19.  8. 78. 86.]
363 cord_individual_obj[indivial_i, :] = [20. 10. 110. 120.]
364 cord_individual_obj[indivial_i, :] = [21. 10. 129. 139.]
365 cord_individual_obj[indivial_i, :] = [22.  9. 153. 162.]
366 cord_individual_obj[indivial_i, :] = [23.  8. 109. 117.]
367 cord_individual_obj[indivial_i, :] = [24. 10. 136. 146.]
368
369 min(cord_individual_obj[:, 3]) = 75.0
370 histol_G_best_iter[iter, 3] = 75.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i, :] = [ 0. 10. 136. 146.]
375 cord_individual_obj[indivial_i, :] = [ 1. 11. 127. 138.]
376 cord_individual_obj[indivial_i, :] = [ 2.  8. 201. 209.]
377 cord_individual_obj[indivial_i, :] = [ 3. 10. 195. 205.]
378 cord_individual_obj[indivial_i, :] = [ 4. 12. 105. 117.]
379 cord_individual_obj[indivial_i, :] = [ 5. 11. 177. 188.]
380 cord_individual_obj[indivial_i, :] = [ 6. 10. 116. 126.]
381 cord_individual_obj[indivial_i, :] = [ 7.  9. 66. 75.]
382 cord_individual_obj[indivial_i, :] = [ 8. 10. 105. 115.]
383 cord_individual_obj[indivial_i, :] = [ 9.  9. 168. 177.]
384 cord_individual_obj[indivial_i, :] = [10. 11. 95. 106.]
385 cord_individual_obj[indivial_i, :] = [11. 10. 131. 141.]
386 cord_individual_obj[indivial_i, :] = [12.  9. 176. 185.]
387 cord_individual_obj[indivial_i, :] = [13. 14. 181. 195.]
388 cord_individual_obj[indivial_i, :] = [14. 11. 143. 154.]
389 cord_individual_obj[indivial_i, :] = [15. 10. 167. 177.]
390 cord_individual_obj[indivial_i, :] = [16. 10. 112. 122.]
391 cord_individual_obj[indivial_i, :] = [17.  7. 180. 187.]
392 cord_individual_obj[indivial_i, :] = [18. 10. 174. 184.]
393 cord_individual_obj[indivial_i, :] = [19.  9. 123. 132.]
394 cord_individual_obj[indivial_i, :] = [20.  8. 133. 141.]
395 cord_individual_obj[indivial_i, :] = [21.  9. 111. 120.]
396 cord_individual_obj[indivial_i, :] = [22. 10. 131. 141.]
397 cord_individual_obj[indivial_i, :] = [23.  9. 151. 160.]
398 cord_individual_obj[indivial_i, :] = [24. 10. 105. 115.]
399
400 min(cord_individual_obj[:, 3]) = 75.0
401 histol_G_best_iter[iter, 3] = 75.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i, :] = [ 0.  8. 206. 214.]
406 cord_individual_obj[indivial_i, :] = [ 1. 10. 139. 149.]
407 cord_individual_obj[indivial_i, :] = [ 2.  9. 66. 75.]
408 cord_individual_obj[indivial_i, :] = [ 3.  9. 166. 175.]
409 cord_individual_obj[indivial_i, :] = [ 4. 11. 140. 151.]
410 cord_individual_obj[indivial_i, :] = [ 5. 11. 149. 160.]
411 cord_individual_obj[indivial_i, :] = [ 6.  8. 133. 141.]
412 cord_individual_obj[indivial_i, :] = [ 7.  7. 137. 144.]
413 cord_individual_obj[indivial_i, :] = [ 8.  9. 127. 136.]
414 cord_individual_obj[indivial_i, :] = [ 9.  9. 159. 168.]
415 cord_individual_obj[indivial_i, :] = [10. 13. 138. 151.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 10. 149. 159.]
417 cord_individual_obj[indivial_i,:] = [ 12. 9. 102. 111.]
418 cord_individual_obj[indivial_i,:] = [ 13. 10. 95. 105.]
419 cord_individual_obj[indivial_i,:] = [ 14. 10. 278. 288.]
420 cord_individual_obj[indivial_i,:] = [ 15. 9. 173. 182.]
421 cord_individual_obj[indivial_i,:] = [ 16. 10. 129. 139.]
422 cord_individual_obj[indivial_i,:] = [ 17. 8. 118. 126.]
423 cord_individual_obj[indivial_i,:] = [ 18. 8. 155. 163.]
424 cord_individual_obj[indivial_i,:] = [ 19. 9. 142. 151.]
425 cord_individual_obj[indivial_i,:] = [ 20. 11. 135. 146.]
426 cord_individual_obj[indivial_i,:] = [ 21. 9. 147. 156.]
427 cord_individual_obj[indivial_i,:] = [ 22. 9. 146. 155.]
428 cord_individual_obj[indivial_i,:] = [ 23. 9. 208. 217.]
429 cord_individual_obj[indivial_i,:] = [ 24. 10. 197. 207.]
430
431 min(cord_individual_obj[:,3]) = 75.0
432 histol_G_best_iter[iter,3] = 75.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 9. 101. 110.]
437 cord_individual_obj[indivial_i,:] = [ 1. 8. 108. 116.]
438 cord_individual_obj[indivial_i,:] = [ 2. 8. 154. 162.]
439 cord_individual_obj[indivial_i,:] = [ 3. 8. 96. 104.]
440 cord_individual_obj[indivial_i,:] = [ 4. 12. 105. 117.]
441 cord_individual_obj[indivial_i,:] = [ 5. 12. 207. 219.]
442 cord_individual_obj[indivial_i,:] = [ 6. 9. 124. 133.]
443 cord_individual_obj[indivial_i,:] = [ 7. 10. 153. 163.]
444 cord_individual_obj[indivial_i,:] = [ 8. 10. 173. 183.]
445 cord_individual_obj[indivial_i,:] = [ 9. 9. 175. 184.]
446 cord_individual_obj[indivial_i,:] = [ 10. 10. 144. 154.]
447 cord_individual_obj[indivial_i,:] = [ 11. 10. 81. 91.]
448 cord_individual_obj[indivial_i,:] = [ 12. 10. 134. 144.]
449 cord_individual_obj[indivial_i,:] = [ 13. 8. 184. 192.]
450 cord_individual_obj[indivial_i,:] = [ 14. 9. 66. 75.]
451 cord_individual_obj[indivial_i,:] = [ 15. 11. 90. 101.]
452 cord_individual_obj[indivial_i,:] = [ 16. 8. 170. 178.]
453 cord_individual_obj[indivial_i,:] = [ 17. 9. 109. 118.]
454 cord_individual_obj[indivial_i,:] = [ 18. 9. 135. 144.]
455 cord_individual_obj[indivial_i,:] = [ 19. 10. 137. 147.]
456 cord_individual_obj[indivial_i,:] = [ 20. 10. 140. 150.]
457 cord_individual_obj[indivial_i,:] = [ 21. 9. 135. 144.]
458 cord_individual_obj[indivial_i,:] = [ 22. 8. 101. 109.]
459 cord_individual_obj[indivial_i,:] = [ 23. 11. 126. 137.]
460 cord_individual_obj[indivial_i,:] = [ 24. 12. 113. 125.]
461
462 min(cord_individual_obj[:,3]) = 75.0
463 histol_G_best_iter[iter,3] = 75.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 8. 233. 241.]
468 cord_individual_obj[indivial_i,:] = [ 1. 8. 105. 113.]
469 cord_individual_obj[indivial_i,:] = [ 2. 9. 135. 144.]
470 cord_individual_obj[indivial_i,:] = [ 3. 9. 157. 166.]
471 cord_individual_obj[indivial_i,:] = [ 4. 10. 107. 117.]
472 cord_individual_obj[indivial_i,:] = [ 5. 9. 66. 75.]
473 cord_individual_obj[indivial_i,:] = [ 6. 8. 172. 180.]
474 cord_individual_obj[indivial_i,:] = [ 7. 9. 78. 87.]
475 cord_individual_obj[indivial_i,:] = [ 8. 8. 122. 130.]
476 cord_individual_obj[indivial_i,:] = [ 9. 9. 137. 146.]
477 cord_individual_obj[indivial_i,:] = [ 10. 9. 140. 149.]
478 cord_individual_obj[indivial_i,:] = [ 11. 12. 121. 133.]
479 cord_individual_obj[indivial_i,:] = [ 12. 11. 113. 124.]
480 cord_individual_obj[indivial_i,:] = [ 13. 11. 164. 175.]
481 cord_individual_obj[indivial_i,:] = [ 14. 9. 175. 184.]
482 cord_individual_obj[indivial_i,:] = [ 15. 10. 116. 126.]
483 cord_individual_obj[indivial_i,:] = [ 16. 10. 108. 118.]
484 cord_individual_obj[indivial_i,:] = [ 17. 11. 131. 142.]
485 cord_individual_obj[indivial_i,:] = [ 18. 9. 199. 208.]
486 cord_individual_obj[indivial_i,:] = [ 19. 11. 194. 205.]
487 cord_individual_obj[indivial_i,:] = [ 20. 7. 109. 116.]
488 cord_individual_obj[indivial_i,:] = [ 21. 9. 85. 94.]
489 cord_individual_obj[indivial_i,:] = [ 22. 10. 132. 142.]
490 cord_individual_obj[indivial_i,:] = [ 23. 8. 152. 160.]
491 cord_individual_obj[indivial_i,:] = [ 24. 8. 174. 182.]
492
493 min(cord_individual_obj[:,3]) = 75.0
494 histol_G_best_iter[iter,3] = 75.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 9. 66. 75.]
499 cord_individual_obj[indivial_i,:] = [ 1. 11. 124. 135.]

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500 cord_individual_obj[indivial_i, :] = [ 2. 10. 173. 183.]
501 cord_individual_obj[indivial_i, :] = [ 3. 9. 129. 138.]
502 cord_individual_obj[indivial_i, :] = [ 4. 10. 183. 193.]
503 cord_individual_obj[indivial_i, :] = [ 5. 8. 155. 163.]
504 cord_individual_obj[indivial_i, :] = [ 6. 8. 161. 169.]
505 cord_individual_obj[indivial_i, :] = [ 7. 10. 108. 118.]
506 cord_individual_obj[indivial_i, :] = [ 8. 11. 135. 146.]
507 cord_individual_obj[indivial_i, :] = [ 9. 9. 117. 126.]
508 cord_individual_obj[indivial_i, :] = [ 10. 10. 145. 155.]
509 cord_individual_obj[indivial_i, :] = [ 11. 8. 145. 153.]
510 cord_individual_obj[indivial_i, :] = [ 12. 9. 233. 242.]
511 cord_individual_obj[indivial_i, :] = [ 13. 11. 79. 90.]
512 cord_individual_obj[indivial_i, :] = [ 14. 10. 136. 146.]
513 cord_individual_obj[indivial_i, :] = [ 15. 11. 161. 172.]
514 cord_individual_obj[indivial_i, :] = [ 16. 10. 197. 207.]
515 cord_individual_obj[indivial_i, :] = [ 17. 9. 122. 131.]
516 cord_individual_obj[indivial_i, :] = [ 18. 12. 132. 144.]
517 cord_individual_obj[indivial_i, :] = [ 19. 8. 161. 169.]
518 cord_individual_obj[indivial_i, :] = [ 20. 9. 145. 154.]
519 cord_individual_obj[indivial_i, :] = [ 21. 7. 147. 154.]
520 cord_individual_obj[indivial_i, :] = [ 22. 9. 157. 166.]
521 cord_individual_obj[indivial_i, :] = [ 23. 10. 119. 129.]
522 cord_individual_obj[indivial_i, :] = [ 24. 10. 146. 156.]
523
524 min(cord_individual_obj[:, 3]) = 75.0
525 histol_G_best_iter[iter, 3] = 75.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i, :] = [ 0. 12. 92. 104.]
530 cord_individual_obj[indivial_i, :] = [ 1. 10. 129. 139.]
531 cord_individual_obj[indivial_i, :] = [ 2. 11. 134. 145.]
532 cord_individual_obj[indivial_i, :] = [ 3. 11. 159. 170.]
533 cord_individual_obj[indivial_i, :] = [ 4. 8. 99. 107.]
534 cord_individual_obj[indivial_i, :] = [ 5. 12. 175. 187.]
535 cord_individual_obj[indivial_i, :] = [ 6. 8. 109. 117.]
536 cord_individual_obj[indivial_i, :] = [ 7. 9. 119. 128.]
537 cord_individual_obj[indivial_i, :] = [ 8. 10. 155. 165.]
538 cord_individual_obj[indivial_i, :] = [ 9. 8. 142. 150.]
539 cord_individual_obj[indivial_i, :] = [ 10. 10. 120. 130.]
540 cord_individual_obj[indivial_i, :] = [ 11. 9. 168. 177.]
541 cord_individual_obj[indivial_i, :] = [ 12. 9. 66. 75.]
542 cord_individual_obj[indivial_i, :] = [ 13. 8. 125. 133.]
543 cord_individual_obj[indivial_i, :] = [ 14. 8. 109. 117.]
544 cord_individual_obj[indivial_i, :] = [ 15. 9. 151. 160.]
545 cord_individual_obj[indivial_i, :] = [ 16. 10. 103. 113.]
546 cord_individual_obj[indivial_i, :] = [ 17. 9. 136. 145.]
547 cord_individual_obj[indivial_i, :] = [ 18. 8. 147. 155.]
548 cord_individual_obj[indivial_i, :] = [ 19. 9. 178. 187.]
549 cord_individual_obj[indivial_i, :] = [ 20. 8. 125. 133.]
550 cord_individual_obj[indivial_i, :] = [ 21. 9. 136. 145.]
551 cord_individual_obj[indivial_i, :] = [ 22. 10. 146. 156.]
552 cord_individual_obj[indivial_i, :] = [ 23. 10. 131. 141.]
553 cord_individual_obj[indivial_i, :] = [ 24. 11. 142. 153.]
554
555 min(cord_individual_obj[:, 3]) = 75.0
556 histol_G_best_iter[iter, 3] = 75.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i, :] = [ 0. 11. 149. 160.]
561 cord_individual_obj[indivial_i, :] = [ 1. 8. 103. 111.]
562 cord_individual_obj[indivial_i, :] = [ 2. 10. 104. 114.]
563 cord_individual_obj[indivial_i, :] = [ 3. 9. 138. 147.]
564 cord_individual_obj[indivial_i, :] = [ 4. 11. 171. 182.]
565 cord_individual_obj[indivial_i, :] = [ 5. 9. 66. 75.]
566 cord_individual_obj[indivial_i, :] = [ 6. 8. 203. 211.]
567 cord_individual_obj[indivial_i, :] = [ 7. 10. 118. 128.]
568 cord_individual_obj[indivial_i, :] = [ 8. 11. 109. 120.]
569 cord_individual_obj[indivial_i, :] = [ 9. 11. 141. 152.]
570 cord_individual_obj[indivial_i, :] = [ 10. 9. 176. 185.]
571 cord_individual_obj[indivial_i, :] = [ 11. 10. 209. 219.]
572 cord_individual_obj[indivial_i, :] = [ 12. 10. 180. 190.]
573 cord_individual_obj[indivial_i, :] = [ 13. 9. 69. 78.]
574 cord_individual_obj[indivial_i, :] = [ 14. 9. 141. 150.]
575 cord_individual_obj[indivial_i, :] = [ 15. 11. 230. 241.]
576 cord_individual_obj[indivial_i, :] = [ 16. 7. 108. 115.]
577 cord_individual_obj[indivial_i, :] = [ 17. 11. 224. 235.]
578 cord_individual_obj[indivial_i, :] = [ 18. 11. 116. 127.]
579 cord_individual_obj[indivial_i, :] = [ 19. 11. 95. 106.]
580 cord_individual_obj[indivial_i, :] = [ 20. 9. 172. 181.]
581 cord_individual_obj[indivial_i, :] = [ 21. 10. 120. 130.]
582 cord_individual_obj[indivial_i, :] = [ 22. 13. 130. 143.]
583 cord_individual_obj[indivial_i, :] = [ 23. 11. 154. 165.]

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584     cord_individual_obj[indivial_i, :] = [ 24.  9. 106. 115.]
585
586     min(cord_individual_obj[:, 3]) = 75.0
587     historl_G_best_iter[iter, 3] = 75.0
588 Begin iteration:
589 iter = 18
590     cord_individual_obj[indivial_i, :] = [ 0. 10. 114. 124.]
591     cord_individual_obj[indivial_i, :] = [ 1. 11. 156. 167.]
592     cord_individual_obj[indivial_i, :] = [ 2. 9. 109. 118.]
593     cord_individual_obj[indivial_i, :] = [ 3. 11. 180. 191.]
594     cord_individual_obj[indivial_i, :] = [ 4. 9. 127. 136.]
595     cord_individual_obj[indivial_i, :] = [ 5. 9. 176. 185.]
596     cord_individual_obj[indivial_i, :] = [ 6. 9. 131. 140.]
597     cord_individual_obj[indivial_i, :] = [ 7. 8. 165. 173.]
598     cord_individual_obj[indivial_i, :] = [ 8. 8. 118. 126.]
599     cord_individual_obj[indivial_i, :] = [ 9. 9. 162. 171.]
600     cord_individual_obj[indivial_i, :] = [ 10. 13. 198. 211.]
601     cord_individual_obj[indivial_i, :] = [ 11. 10. 131. 141.]
602     cord_individual_obj[indivial_i, :] = [ 12. 8. 141. 149.]
603     cord_individual_obj[indivial_i, :] = [ 13. 12. 94. 106.]
604     cord_individual_obj[indivial_i, :] = [ 14. 10. 173. 183.]
605     cord_individual_obj[indivial_i, :] = [ 15. 9. 66. 75.]
606     cord_individual_obj[indivial_i, :] = [ 16. 11. 180. 191.]
607     cord_individual_obj[indivial_i, :] = [ 17. 9. 178. 187.]
608     cord_individual_obj[indivial_i, :] = [ 18. 9. 173. 182.]
609     cord_individual_obj[indivial_i, :] = [ 19. 9. 153. 162.]
610     cord_individual_obj[indivial_i, :] = [ 20. 9. 114. 123.]
611     cord_individual_obj[indivial_i, :] = [ 21. 8. 96. 104.]
612     cord_individual_obj[indivial_i, :] = [ 22. 9. 103. 112.]
613     cord_individual_obj[indivial_i, :] = [ 23. 9. 133. 142.]
614     cord_individual_obj[indivial_i, :] = [ 24. 11. 118. 129.]
615
616
617     min(cord_individual_obj[:, 3]) = 75.0
618     historl_G_best_iter[iter, 3] = 75.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 8. 231. 239.]
623     cord_individual_obj[indivial_i, :] = [ 1. 10. 90. 100.]
624     cord_individual_obj[indivial_i, :] = [ 2. 10. 198. 208.]
625     cord_individual_obj[indivial_i, :] = [ 3. 8. 125. 133.]
626     cord_individual_obj[indivial_i, :] = [ 4. 10. 135. 145.]
627     cord_individual_obj[indivial_i, :] = [ 5. 11. 71. 82.]
628     cord_individual_obj[indivial_i, :] = [ 6. 8. 185. 193.]
629     cord_individual_obj[indivial_i, :] = [ 7. 8. 155. 163.]
630     cord_individual_obj[indivial_i, :] = [ 8. 9. 186. 195.]
631     cord_individual_obj[indivial_i, :] = [ 9. 9. 136. 145.]
632     cord_individual_obj[indivial_i, :] = [ 10. 9. 66. 75.]
633     cord_individual_obj[indivial_i, :] = [ 11. 9. 147. 156.]
634     cord_individual_obj[indivial_i, :] = [ 12. 8. 187. 195.]
635     cord_individual_obj[indivial_i, :] = [ 13. 9. 101. 110.]
636     cord_individual_obj[indivial_i, :] = [ 14. 9. 214. 223.]
637     cord_individual_obj[indivial_i, :] = [ 15. 9. 119. 128.]
638     cord_individual_obj[indivial_i, :] = [ 16. 10. 189. 199.]
639     cord_individual_obj[indivial_i, :] = [ 17. 9. 156. 165.]
640     cord_individual_obj[indivial_i, :] = [ 18. 9. 122. 131.]
641     cord_individual_obj[indivial_i, :] = [ 19. 10. 146. 156.]
642     cord_individual_obj[indivial_i, :] = [ 20. 10. 127. 137.]
643     cord_individual_obj[indivial_i, :] = [ 21. 9. 140. 149.]
644     cord_individual_obj[indivial_i, :] = [ 22. 10. 135. 145.]
645     cord_individual_obj[indivial_i, :] = [ 23. 11. 105. 116.]
646     cord_individual_obj[indivial_i, :] = [ 24. 11. 217. 228.]
647
648     min(cord_individual_obj[:, 3]) = 75.0
649     historl_G_best_iter[iter, 3] = 75.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 9. 66. 75.]
654     cord_individual_obj[indivial_i, :] = [ 1. 10. 116. 126.]
655     cord_individual_obj[indivial_i, :] = [ 2. 10. 136. 146.]
656     cord_individual_obj[indivial_i, :] = [ 3. 9. 176. 185.]
657     cord_individual_obj[indivial_i, :] = [ 4. 11. 141. 152.]
658     cord_individual_obj[indivial_i, :] = [ 5. 9. 103. 112.]
659     cord_individual_obj[indivial_i, :] = [ 6. 9. 241. 250.]
660     cord_individual_obj[indivial_i, :] = [ 7. 11. 121. 132.]
661     cord_individual_obj[indivial_i, :] = [ 8. 9. 116. 125.]
662     cord_individual_obj[indivial_i, :] = [ 9. 11. 182. 193.]
663     cord_individual_obj[indivial_i, :] = [ 10. 13. 139. 152.]
664     cord_individual_obj[indivial_i, :] = [ 11. 11. 73. 84.]
665     cord_individual_obj[indivial_i, :] = [ 12. 11. 114. 125.]
666     cord_individual_obj[indivial_i, :] = [ 13. 9. 166. 175.]
667     cord_individual_obj[indivial_i, :] = [ 14. 10. 217. 227.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 9. 94. 103.]
669 cord_individual_obj[indivial_i,:] = [ 16. 11. 148. 159.]
670 cord_individual_obj[indivial_i,:] = [ 17. 8. 151. 159.]
671 cord_individual_obj[indivial_i,:] = [ 18. 9. 128. 137.]
672 cord_individual_obj[indivial_i,:] = [ 19. 8. 133. 141.]
673 cord_individual_obj[indivial_i,:] = [ 20. 8. 125. 133.]
674 cord_individual_obj[indivial_i,:] = [ 21. 11. 145. 156.]
675 cord_individual_obj[indivial_i,:] = [ 22. 10. 123. 133.]
676 cord_individual_obj[indivial_i,:] = [ 23. 10. 115. 125.]
677 cord_individual_obj[indivial_i,:] = [ 24. 9. 156. 165.]
678
679 min(cord_individual_obj[:,3]) = 75.0
680 historl_G_best_iter[iter,3] = 75.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 207.0
689 Proportion_of_area = 0.19166666666666668
690 BEST_CHROM =
691 berth: [ 1.5 21. 17.5 4.5 5.5 14.5 10. 20.5 11.5 15.5 23.5 2.5 23.5 10.
692 6.5 3.5 11.5]
693 time: [0. 7. 0. 8. 2. 0. 6. 0. 4. 6. 2. 6. 4. 2. 6. 0. 3. 0.]
694 num_QC: [3. 3. 2. 2. 4. 3. 4. 3. 2. 3. 5. 3. 3. 4. 2. 4. 2. 3.]
695 Objective function values and some other indicators:
696 Obj0 = 9.00 Obj1 = 66.00 Obj0 + Obj1 = 75.00
697 Total movement of crane: 10.00
698 Total waiting time in berth position: 56.00
699 Total index of q during berthing: 1067.00
700 Specific arrangement for each vessel:
701 V_id: 0 li: 3.0 xi: 1.5 bow of i: 0.0 tail of i: 3.0 gama_i0: 0.0 gama_i1: 2.0
702 140.0 work load gap_i: 0 gama_i1 + 1: 3.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 140.0 work load_i:
703 V_id: 1 li: 4.0 xi: 21.0 bow of i: 19.0 tail of i: 23.0 gama_i0: 7.0 gama_i1: 8
704 .0 gama_i1 + 1: 9.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 100.0 work
705 load_i: 100.0 work load gap_i: 0
706 V_id: 2 li: 3.0 xi: 17.5 bow of i: 16.0 tail of i: 19.0 gama_i0: 0.0 gama_i1: 3
707 .0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 3.0 duration_time_i: 4.0 demand_i: 140.0 work
708 load_i: 140.0 work load gap_i: 0
709 V_id: 3 li: 9.0 xi: 4.5 bow of i: 0.0 tail of i: 9.0 gama_i0: 8.0 gama_i1: 9
710 load_i: 80.0 gama_i1 + 1: 10.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 80.0 work
711 work load gap_i: 0
712 V_id: 4 li: 5.0 xi: 5.5 bow of i: 3.0 tail of i: 8.0 gama_i0: 2.0 gama_i1: 2
713 .0 gama_i1 + 1: 3.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 80.0 work load_i:
714 load_i: 80.0 work load gap_i: 0
715 V_id: 5 li: 3.0 xi: 14.5 bow of i: 13.0 tail of i: 16.0 gama_i0: 0.0 gama_i1: 2
716 .0 gama_i1 + 1: 3.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 140.0 work
717 load_i: 140.0 work load gap_i: 0
718 V_id: 6 li: 4.0 xi: 10.0 bow of i: 8.0 tail of i: 12.0 gama_i0: 6.0 gama_i1: 7
719 .0 gama_i1 + 1: 8.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 120.0 work
720 load_i: 120.0 work load gap_i: 0
721 V_id: 7 li: 3.0 xi: 20.5 bow of i: 19.0 tail of i: 22.0 gama_i0: 0.0 gama_i1: 1
722 .0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 120.0 work
723 load_i: 120.0 work load gap_i: 0
724 V_id: 8 li: 9.0 xi: 11.5 bow of i: 7.0 tail of i: 16.0 gama_i0: 4.0 gama_i1: 5
725 .0 gama_i1 + 1: 6.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 60.0 work
726 load_i: 60.0 work load gap_i: 0
727 V_id: 9 li: 7.0 xi: 15.5 bow of i: 12.0 tail of i: 19.0 gama_i0: 6.0 gama_i1: 7
728 .0 gama_i1 + 1: 8.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 120.0 work
729 load_i: 120.0 work load gap_i: 0
730 V_id: 10 li: 9.0 xi: 23.5 bow of i: 19.0 tail of i: 28.0 gama_i0: 2.0 gama_i1: 1
731 : 3.0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 140.0 work
732 load_i: 140.0 work load gap_i: 0
733 V_id: 11 li: 5.0 xi: 2.5 bow of i: 0.0 tail of i: 5.0 gama_i0: 6.0 gama_i1: 7
734 .0 gama_i1 + 1: 8.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 80.0 work load_i:
735 load_i: 80.0 work load gap_i: 0
736 V_id: 12 li: 9.0 xi: 23.5 bow of i: 19.0 tail of i: 28.0 gama_i0: 4.0 gama_i1: 1
737 : 6.0 gama_i1 + 1: 7.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 160.0 work
738 load_i: 160.0 work load gap_i: 0
739 V_id: 13 li: 4.0 xi: 10.0 bow of i: 8.0 tail of i: 12.0 gama_i0: 2.0 gama_i1: 1
740 : 3.0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 140.0 work
741 load_i: 140.0 work load gap_i: 0
742 V_id: 14 li: 3.0 xi: 6.5 bow of i: 5.0 tail of i: 8.0 gama_i0: 6.0 gama_i1: 7
743 .0 gama_i1 + 1: 8.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 80.0 work load_i:
744 load_i: 80.0 work load gap_i: 0
745 V_id: 15 li: 7.0 xi: 6.5 bow of i: 3.0 tail of i: 10.0 gama_i0: 0.0 gama_i1: 1
746 .0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 100.0 work
747 load_i: 100.0 work load gap_i: 0
748 V_id: 16 li: 7.0 xi: 3.5 bow of i: 0.0 tail of i: 7.0 gama_i0: 3.0 gama_i1: 5
749 .0 gama_i1 + 1: 6.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 120.0 work load_i:
750 load_i: 120.0 work load gap_i: 0

```

unknown

718	V_id: 17	li: 3.0	xi: 11.5	bow of i: 10.0	tail of i: 13.0	gama_i0: 0.0	gama_i1
	: 1.0	gama_i1 + 1: 2.0	gama_i1 - gama_i0: 1.0		duration_time_i: 2.0	demand_i: 80.0	work
719		load_i: 80.0	work load gap_i: 0				
720	Algorithm finished and the total CPU time: 471 s						
721	End						
722							