

unknown

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 9. 141. 150.]
81 cord_individual_obj[indivial_i,:] = [17. 8. 63. 71.]
82 cord_individual_obj[indivial_i,:] = [ 18. 8. 104. 112.]
83 cord_individual_obj[indivial_i,:] = [19. 10. 80. 90.]
84 cord_individual_obj[indivial_i,:] = [20. 9. 86. 95.]
85 cord_individual_obj[indivial_i,:] = [ 21. 8. 161. 169.]
86 cord_individual_obj[indivial_i,:] = [ 22. 7. 110. 117.]
87 cord_individual_obj[indivial_i,:] = [ 23. 9. 118. 127.]
88 cord_individual_obj[indivial_i,:] = [ 24. 7. 81. 88.]
89
90 min(cord_individual_obj[:,3]) = 61.0
91 historl_G_best_iter[iter, 3] = 61.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 8. 53. 61.]
96 cord_individual_obj[indivial_i,:] = [ 1. 7. 131. 138.]
97 cord_individual_obj[indivial_i,:] = [ 2. 10. 162. 172.]
98 cord_individual_obj[indivial_i,:] = [ 3. 7. 105. 112.]
99 cord_individual_obj[indivial_i,:] = [ 4. 7. 103. 110.]
100 cord_individual_obj[indivial_i,:] = [ 5. 6. 100. 106.]
101 cord_individual_obj[indivial_i,:] = [ 6. 7. 112. 119.]
102 cord_individual_obj[indivial_i,:] = [ 7. 6. 93. 99.]
103 cord_individual_obj[indivial_i,:] = [ 8. 8. 117. 125.]
104 cord_individual_obj[indivial_i,:] = [ 9. 7. 189. 196.]
105 cord_individual_obj[indivial_i,:] = [10. 7. 127. 134.]
106 cord_individual_obj[indivial_i,:] = [11. 6. 113. 119.]
107 cord_individual_obj[indivial_i,:] = [12. 8. 138. 146.]
108 cord_individual_obj[indivial_i,:] = [13. 8. 173. 181.]
109 cord_individual_obj[indivial_i,:] = [14. 8. 120. 128.]
110 cord_individual_obj[indivial_i,:] = [15. 7. 68. 75.]
111 cord_individual_obj[indivial_i,:] = [16. 8. 140. 148.]
112 cord_individual_obj[indivial_i,:] = [17. 7. 110. 117.]
113 cord_individual_obj[indivial_i,:] = [18. 8. 114. 122.]
114 cord_individual_obj[indivial_i,:] = [19. 8. 118. 126.]
115 cord_individual_obj[indivial_i,:] = [20. 6. 140. 146.]
116 cord_individual_obj[indivial_i,:] = [21. 8. 131. 139.]
117 cord_individual_obj[indivial_i,:] = [22. 7. 121. 128.]
118 cord_individual_obj[indivial_i,:] = [23. 7. 145. 152.]
119 cord_individual_obj[indivial_i,:] = [24. 8. 117. 125.]
120
121 min(cord_individual_obj[:,3]) = 61.0
122 historl_G_best_iter[iter, 3] = 61.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 8. 95. 103.]
127 cord_individual_obj[indivial_i,:] = [ 1. 8. 105. 113.]
128 cord_individual_obj[indivial_i,:] = [ 2. 8. 156. 164.]
129 cord_individual_obj[indivial_i,:] = [ 3. 6. 74. 80.]
130 cord_individual_obj[indivial_i,:] = [ 4. 7. 98. 105.]
131 cord_individual_obj[indivial_i,:] = [ 5. 7. 111. 118.]
132 cord_individual_obj[indivial_i,:] = [ 6. 8. 139. 147.]
133 cord_individual_obj[indivial_i,:] = [ 7. 6. 108. 114.]
134 cord_individual_obj[indivial_i,:] = [ 8. 7. 124. 131.]
135 cord_individual_obj[indivial_i,:] = [ 9. 8. 53. 61.]
136 cord_individual_obj[indivial_i,:] = [10. 8. 137. 145.]
137 cord_individual_obj[indivial_i,:] = [11. 6. 105. 111.]
138 cord_individual_obj[indivial_i,:] = [12. 8. 72. 80.]
139 cord_individual_obj[indivial_i,:] = [13. 7. 219. 226.]
140 cord_individual_obj[indivial_i,:] = [14. 8. 121. 129.]
141 cord_individual_obj[indivial_i,:] = [15. 7. 108. 115.]
142 cord_individual_obj[indivial_i,:] = [16. 6. 187. 193.]
143 cord_individual_obj[indivial_i,:] = [17. 5. 116. 121.]
144 cord_individual_obj[indivial_i,:] = [18. 6. 67. 73.]
145 cord_individual_obj[indivial_i,:] = [19. 7. 169. 176.]
146 cord_individual_obj[indivial_i,:] = [20. 7. 149. 156.]
147 cord_individual_obj[indivial_i,:] = [21. 8. 167. 175.]
148 cord_individual_obj[indivial_i,:] = [22. 8. 133. 141.]
149 cord_individual_obj[indivial_i,:] = [23. 7. 115. 122.]
150 cord_individual_obj[indivial_i,:] = [24. 9. 144. 153.]
151
152 min(cord_individual_obj[:,3]) = 61.0
153 historl_G_best_iter[iter, 3] = 61.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 8. 86. 94.]
158 cord_individual_obj[indivial_i,:] = [ 1. 9. 170. 179.]
159 cord_individual_obj[indivial_i,:] = [ 2. 9. 93. 102.]
160 cord_individual_obj[indivial_i,:] = [ 3. 8. 125. 133.]
161 cord_individual_obj[indivial_i,:] = [ 4. 9. 124. 133.]
162 cord_individual_obj[indivial_i,:] = [ 5. 6. 65. 71.]
163 cord_individual_obj[indivial_i,:] = [ 6. 6. 188. 194.]
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164 cord_individual_obj[indivial_i,:] = [ 7. 8. 100. 108.]
165 cord_individual_obj[indivial_i,:] = [ 8. 6. 115. 121.]
166 cord_individual_obj[indivial_i,:] = [ 9. 6. 132. 138.]
167 cord_individual_obj[indivial_i,:] = [ 10. 7. 133. 140.]
168 cord_individual_obj[indivial_i,:] = [ 11. 6. 114. 120.]
169 cord_individual_obj[indivial_i,:] = [ 12. 7. 101. 108.]
170 cord_individual_obj[indivial_i,:] = [ 13. 8. 53. 61.]
171 cord_individual_obj[indivial_i,:] = [ 14. 7. 140. 147.]
172 cord_individual_obj[indivial_i,:] = [ 15. 8. 105. 113.]
173 cord_individual_obj[indivial_i,:] = [ 16. 7. 120. 127.]
174 cord_individual_obj[indivial_i,:] = [ 17. 7. 87. 94.]
175 cord_individual_obj[indivial_i,:] = [ 18. 6. 117. 123.]
176 cord_individual_obj[indivial_i,:] = [ 19. 6. 66. 72.]
177 cord_individual_obj[indivial_i,:] = [ 20. 8. 136. 144.]
178 cord_individual_obj[indivial_i,:] = [ 21. 7. 87. 94.]
179 cord_individual_obj[indivial_i,:] = [ 22. 7. 113. 120.]
180 cord_individual_obj[indivial_i,:] = [ 23. 7. 102. 109.]
181 cord_individual_obj[indivial_i,:] = [ 24. 6. 127. 133.]
182
183 min(cord_individual_obj[:,3]) = 61.0
184 historl_G_best_iter[iter,3] = 61.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 7. 132. 139.]
189 cord_individual_obj[indivial_i,:] = [ 1. 8. 107. 115.]
190 cord_individual_obj[indivial_i,:] = [ 2. 6. 140. 146.]
191 cord_individual_obj[indivial_i,:] = [ 3. 8. 93. 101.]
192 cord_individual_obj[indivial_i,:] = [ 4. 7. 115. 122.]
193 cord_individual_obj[indivial_i,:] = [ 5. 7. 119. 126.]
194 cord_individual_obj[indivial_i,:] = [ 6. 8. 53. 61.]
195 cord_individual_obj[indivial_i,:] = [ 7. 6. 119. 125.]
196 cord_individual_obj[indivial_i,:] = [ 8. 6. 117. 123.]
197 cord_individual_obj[indivial_i,:] = [ 9. 6. 107. 113.]
198 cord_individual_obj[indivial_i,:] = [ 10. 7. 125. 132.]
199 cord_individual_obj[indivial_i,:] = [ 11. 8. 99. 107.]
200 cord_individual_obj[indivial_i,:] = [ 12. 6. 121. 127.]
201 cord_individual_obj[indivial_i,:] = [ 13. 7. 129. 136.]
202 cord_individual_obj[indivial_i,:] = [ 14. 7. 93. 100.]
203 cord_individual_obj[indivial_i,:] = [ 15. 8. 128. 136.]
204 cord_individual_obj[indivial_i,:] = [ 16. 8. 143. 151.]
205 cord_individual_obj[indivial_i,:] = [ 17. 6. 107. 113.]
206 cord_individual_obj[indivial_i,:] = [ 18. 8. 158. 166.]
207 cord_individual_obj[indivial_i,:] = [ 19. 7. 92. 99.]
208 cord_individual_obj[indivial_i,:] = [ 20. 6. 163. 169.]
209 cord_individual_obj[indivial_i,:] = [ 21. 9. 111. 120.]
210 cord_individual_obj[indivial_i,:] = [ 22. 6. 129. 135.]
211 cord_individual_obj[indivial_i,:] = [ 23. 7. 119. 126.]
212 cord_individual_obj[indivial_i,:] = [ 24. 7. 143. 150.]
213
214 min(cord_individual_obj[:,3]) = 61.0
215 historl_G_best_iter[iter,3] = 61.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 7. 118. 125.]
220 cord_individual_obj[indivial_i,:] = [ 1. 7. 151. 158.]
221 cord_individual_obj[indivial_i,:] = [ 2. 10. 132. 142.]
222 cord_individual_obj[indivial_i,:] = [ 3. 7. 107. 114.]
223 cord_individual_obj[indivial_i,:] = [ 4. 8. 231. 239.]
224 cord_individual_obj[indivial_i,:] = [ 5. 7. 99. 106.]
225 cord_individual_obj[indivial_i,:] = [ 6. 8. 134. 142.]
226 cord_individual_obj[indivial_i,:] = [ 7. 7. 122. 129.]
227 cord_individual_obj[indivial_i,:] = [ 8. 9. 88. 97.]
228 cord_individual_obj[indivial_i,:] = [ 9. 7. 143. 150.]
229 cord_individual_obj[indivial_i,:] = [ 10. 8. 118. 126.]
230 cord_individual_obj[indivial_i,:] = [ 11. 7. 162. 169.]
231 cord_individual_obj[indivial_i,:] = [ 12. 8. 101. 109.]
232 cord_individual_obj[indivial_i,:] = [ 13. 6. 136. 142.]
233 cord_individual_obj[indivial_i,:] = [ 14. 9. 130. 139.]
234 cord_individual_obj[indivial_i,:] = [ 15. 7. 81. 88.]
235 cord_individual_obj[indivial_i,:] = [ 16. 7. 117. 124.]
236 cord_individual_obj[indivial_i,:] = [ 17. 6. 115. 121.]
237 cord_individual_obj[indivial_i,:] = [ 18. 9. 110. 119.]
238 cord_individual_obj[indivial_i,:] = [ 19. 7. 100. 107.]
239 cord_individual_obj[indivial_i,:] = [ 20. 8. 53. 61.]
240 cord_individual_obj[indivial_i,:] = [ 21. 8. 113. 121.]
241 cord_individual_obj[indivial_i,:] = [ 22. 7. 105. 112.]
242 cord_individual_obj[indivial_i,:] = [ 23. 8. 94. 102.]
243 cord_individual_obj[indivial_i,:] = [ 24. 7. 116. 123.]
244
245 min(cord_individual_obj[:,3]) = 61.0
246 historl_G_best_iter[iter,3] = 61.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 6. 139. 145.]
251 cord_individual_obj[indivial_i, :] = [ 1. 7. 136. 143.]
252 cord_individual_obj[indivial_i, :] = [ 2. 9. 119. 128.]
253 cord_individual_obj[indivial_i, :] = [ 3. 7. 75. 82.]
254 cord_individual_obj[indivial_i, :] = [ 4. 8. 53. 61.]
255 cord_individual_obj[indivial_i, :] = [ 5. 7. 73. 80.]
256 cord_individual_obj[indivial_i, :] = [ 6. 8. 128. 136.]
257 cord_individual_obj[indivial_i, :] = [ 7. 7. 115. 122.]
258 cord_individual_obj[indivial_i, :] = [ 8. 6. 117. 123.]
259 cord_individual_obj[indivial_i, :] = [ 9. 5. 141. 146.]
260 cord_individual_obj[indivial_i, :] = [ 10. 7. 121. 128.]
261 cord_individual_obj[indivial_i, :] = [ 11. 5. 86. 91.]
262 cord_individual_obj[indivial_i, :] = [ 12. 9. 145. 154.]
263 cord_individual_obj[indivial_i, :] = [ 13. 8. 121. 129.]
264 cord_individual_obj[indivial_i, :] = [ 14. 6. 102. 108.]
265 cord_individual_obj[indivial_i, :] = [ 15. 8. 167. 175.]
266 cord_individual_obj[indivial_i, :] = [ 16. 7. 176. 183.]
267 cord_individual_obj[indivial_i, :] = [ 17. 6. 99. 105.]
268 cord_individual_obj[indivial_i, :] = [ 18. 7. 107. 114.]
269 cord_individual_obj[indivial_i, :] = [ 19. 8. 114. 122.]
270 cord_individual_obj[indivial_i, :] = [ 20. 10. 140. 150.]
271 cord_individual_obj[indivial_i, :] = [ 21. 10. 157. 167.]
272 cord_individual_obj[indivial_i, :] = [ 22. 6. 124. 130.]
273 cord_individual_obj[indivial_i, :] = [ 23. 6. 153. 159.]
274 cord_individual_obj[indivial_i, :] = [ 24. 8. 163. 171.]
275

276 min(cord_individual_obj[:, 3]) = 61.0
277 historl_G_best_iter[iter, 3] = 61.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 7. 148. 155.]
282 cord_individual_obj[indivial_i, :] = [ 1. 7. 154. 161.]
283 cord_individual_obj[indivial_i, :] = [ 2. 7. 126. 133.]
284 cord_individual_obj[indivial_i, :] = [ 3. 9. 178. 187.]
285 cord_individual_obj[indivial_i, :] = [ 4. 6. 103. 109.]
286 cord_individual_obj[indivial_i, :] = [ 5. 6. 99. 105.]
287 cord_individual_obj[indivial_i, :] = [ 6. 6. 119. 125.]
288 cord_individual_obj[indivial_i, :] = [ 7. 6. 117. 123.]
289 cord_individual_obj[indivial_i, :] = [ 8. 7. 116. 123.]
290 cord_individual_obj[indivial_i, :] = [ 9. 7. 124. 131.]
291 cord_individual_obj[indivial_i, :] = [ 10. 9. 128. 137.]
292 cord_individual_obj[indivial_i, :] = [ 11. 7. 147. 154.]
293 cord_individual_obj[indivial_i, :] = [ 12. 8. 142. 150.]
294 cord_individual_obj[indivial_i, :] = [ 13. 7. 97. 104.]
295 cord_individual_obj[indivial_i, :] = [ 14. 7. 133. 140.]
296 cord_individual_obj[indivial_i, :] = [ 15. 7. 123. 130.]
297 cord_individual_obj[indivial_i, :] = [ 16. 8. 53. 61.]
298 cord_individual_obj[indivial_i, :] = [ 17. 6. 145. 151.]
299 cord_individual_obj[indivial_i, :] = [ 18. 6. 99. 105.]
300 cord_individual_obj[indivial_i, :] = [ 19. 8. 110. 118.]
301 cord_individual_obj[indivial_i, :] = [ 20. 9. 108. 117.]
302 cord_individual_obj[indivial_i, :] = [ 21. 7. 137. 144.]
303 cord_individual_obj[indivial_i, :] = [ 22. 8. 170. 178.]
304 cord_individual_obj[indivial_i, :] = [ 23. 10. 181. 191.]
305 cord_individual_obj[indivial_i, :] = [ 24. 6. 142. 148.]
306

307 min(cord_individual_obj[:, 3]) = 61.0
308 historl_G_best_iter[iter, 3] = 61.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 6. 131. 137.]
313 cord_individual_obj[indivial_i, :] = [ 1. 7. 185. 192.]
314 cord_individual_obj[indivial_i, :] = [ 2. 7. 92. 99.]
315 cord_individual_obj[indivial_i, :] = [ 3. 8. 77. 85.]
316 cord_individual_obj[indivial_i, :] = [ 4. 9. 148. 157.]
317 cord_individual_obj[indivial_i, :] = [ 5. 7. 96. 103.]
318 cord_individual_obj[indivial_i, :] = [ 6. 8. 152. 160.]
319 cord_individual_obj[indivial_i, :] = [ 7. 8. 138. 146.]
320 cord_individual_obj[indivial_i, :] = [ 8. 6. 108. 114.]
321 cord_individual_obj[indivial_i, :] = [ 9. 7. 131. 138.]
322 cord_individual_obj[indivial_i, :] = [ 10. 5. 131. 136.]
323 cord_individual_obj[indivial_i, :] = [ 11. 6. 84. 90.]
324 cord_individual_obj[indivial_i, :] = [ 12. 7. 160. 167.]
325 cord_individual_obj[indivial_i, :] = [ 13. 7. 117. 124.]
326 cord_individual_obj[indivial_i, :] = [ 14. 7. 100. 107.]
327 cord_individual_obj[indivial_i, :] = [ 15. 8. 66. 74.]
328 cord_individual_obj[indivial_i, :] = [ 16. 7. 169. 176.]
329 cord_individual_obj[indivial_i, :] = [ 17. 7. 88. 95.]
330 cord_individual_obj[indivial_i, :] = [ 18. 8. 117. 125.]
331 cord_individual_obj[indivial_i, :] = [ 19. 8. 114. 122.]

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332 cord_individual_obj[indivial_i,:] = [ 20.  9. 132. 141.]
333 cord_individual_obj[indivial_i,:] = [ 21.  7.  98. 105.]
334 cord_individual_obj[indivial_i,:] = [ 22.  8. 116. 124.]
335 cord_individual_obj[indivial_i,:] = [ 23.  8.  53. 61.]
336 cord_individual_obj[indivial_i,:] = [ 24.  8. 176. 184.]
337
338 min(cord_individual_obj[:,3]) = 61.0
339 histol_G_best_iter[iter,3] = 61.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i,:] = [ 0.  7. 109. 116.]
344 cord_individual_obj[indivial_i,:] = [ 1.  8.  53. 61.]
345 cord_individual_obj[indivial_i,:] = [ 2.  9. 142. 151.]
346 cord_individual_obj[indivial_i,:] = [ 3.  7. 107. 114.]
347 cord_individual_obj[indivial_i,:] = [ 4.  9. 128. 137.]
348 cord_individual_obj[indivial_i,:] = [ 5.  6.  89. 95.]
349 cord_individual_obj[indivial_i,:] = [ 6.  9. 152. 161.]
350 cord_individual_obj[indivial_i,:] = [ 7.  7. 124. 131.]
351 cord_individual_obj[indivial_i,:] = [ 8.  6.  88. 94.]
352 cord_individual_obj[indivial_i,:] = [ 9.  7. 126. 133.]
353 cord_individual_obj[indivial_i,:] = [ 10. 5. 175. 180.]
354 cord_individual_obj[indivial_i,:] = [ 11. 6. 150. 156.]
355 cord_individual_obj[indivial_i,:] = [ 12. 8. 140. 148.]
356 cord_individual_obj[indivial_i,:] = [ 13. 7. 170. 177.]
357 cord_individual_obj[indivial_i,:] = [ 14. 8. 130. 138.]
358 cord_individual_obj[indivial_i,:] = [ 15. 8. 133. 141.]
359 cord_individual_obj[indivial_i,:] = [ 16. 7. 146. 153.]
360 cord_individual_obj[indivial_i,:] = [ 17. 5. 77. 82.]
361 cord_individual_obj[indivial_i,:] = [ 18. 8. 101. 109.]
362 cord_individual_obj[indivial_i,:] = [ 19. 7.  99. 106.]
363 cord_individual_obj[indivial_i,:] = [ 20. 9. 131. 140.]
364 cord_individual_obj[indivial_i,:] = [ 21. 7. 162. 169.]
365 cord_individual_obj[indivial_i,:] = [ 22. 7. 145. 152.]
366 cord_individual_obj[indivial_i,:] = [ 23. 7. 104. 111.]
367 cord_individual_obj[indivial_i,:] = [ 24. 7. 123. 130.]
368
369 min(cord_individual_obj[:,3]) = 61.0
370 histol_G_best_iter[iter,3] = 61.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i,:] = [ 0.  8. 77. 85.]
375 cord_individual_obj[indivial_i,:] = [ 1.  7. 133. 140.]
376 cord_individual_obj[indivial_i,:] = [ 2.  6. 124. 130.]
377 cord_individual_obj[indivial_i,:] = [ 3.  7. 87. 94.]
378 cord_individual_obj[indivial_i,:] = [ 4.  7. 123. 130.]
379 cord_individual_obj[indivial_i,:] = [ 5.  7. 63. 70.]
380 cord_individual_obj[indivial_i,:] = [ 6. 11. 151. 162.]
381 cord_individual_obj[indivial_i,:] = [ 7.  6. 125. 131.]
382 cord_individual_obj[indivial_i,:] = [ 8.  6. 114. 120.]
383 cord_individual_obj[indivial_i,:] = [ 9.  7. 115. 122.]
384 cord_individual_obj[indivial_i,:] = [ 10. 8. 53. 61.]
385 cord_individual_obj[indivial_i,:] = [ 11. 7. 120. 127.]
386 cord_individual_obj[indivial_i,:] = [ 12. 8. 81. 89.]
387 cord_individual_obj[indivial_i,:] = [ 13. 8. 97. 105.]
388 cord_individual_obj[indivial_i,:] = [ 14. 7. 167. 174.]
389 cord_individual_obj[indivial_i,:] = [ 15. 7. 91. 98.]
390 cord_individual_obj[indivial_i,:] = [ 16. 7. 124. 131.]
391 cord_individual_obj[indivial_i,:] = [ 17. 6. 100. 106.]
392 cord_individual_obj[indivial_i,:] = [ 18. 6. 161. 167.]
393 cord_individual_obj[indivial_i,:] = [ 19. 9. 90. 99.]
394 cord_individual_obj[indivial_i,:] = [ 20. 7. 188. 195.]
395 cord_individual_obj[indivial_i,:] = [ 21. 8. 111. 119.]
396 cord_individual_obj[indivial_i,:] = [ 22. 7. 126. 133.]
397 cord_individual_obj[indivial_i,:] = [ 23. 6. 130. 136.]
398 cord_individual_obj[indivial_i,:] = [ 24. 6. 92. 98.]
399
400 min(cord_individual_obj[:,3]) = 61.0
401 histol_G_best_iter[iter,3] = 61.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i,:] = [ 0. 10. 138. 148.]
406 cord_individual_obj[indivial_i,:] = [ 1. 7. 125. 132.]
407 cord_individual_obj[indivial_i,:] = [ 2. 9. 136. 145.]
408 cord_individual_obj[indivial_i,:] = [ 3. 7. 103. 110.]
409 cord_individual_obj[indivial_i,:] = [ 4. 7. 117. 124.]
410 cord_individual_obj[indivial_i,:] = [ 5. 6. 73. 79.]
411 cord_individual_obj[indivial_i,:] = [ 6. 8. 122. 130.]
412 cord_individual_obj[indivial_i,:] = [ 7. 7. 120. 127.]
413 cord_individual_obj[indivial_i,:] = [ 8. 8. 122. 130.]
414 cord_individual_obj[indivial_i,:] = [ 9. 8. 155. 163.]
415 cord_individual_obj[indivial_i,:] = [ 10. 7. 145. 152.]

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416 cord_individual_obj[indivial_i,:] = [ 11.  7. 97. 104.]
417 cord_individual_obj[indivial_i,:] = [ 12.  9. 125. 134.]
418 cord_individual_obj[indivial_i,:] = [ 13.  7. 165. 172.]
419 cord_individual_obj[indivial_i,:] = [ 14.  7. 116. 123.]
420 cord_individual_obj[indivial_i,:] = [ 15.  9. 162. 171.]
421 cord_individual_obj[indivial_i,:] = [ 16.  7. 129. 136.]
422 cord_individual_obj[indivial_i,:] = [ 17.  8. 122. 130.]
423 cord_individual_obj[indivial_i,:] = [ 18.  8. 123. 131.]
424 cord_individual_obj[indivial_i,:] = [ 19.  6. 124. 130.]
425 cord_individual_obj[indivial_i,:] = [ 20.  8. 53. 61.]
426 cord_individual_obj[indivial_i,:] = [ 21.  7. 96. 103.]
427 cord_individual_obj[indivial_i,:] = [ 22.  6. 133. 139.]
428 cord_individual_obj[indivial_i,:] = [ 23.  8. 122. 130.]
429 cord_individual_obj[indivial_i,:] = [ 24.  8. 158. 166.]
430
431 min(cord_individual_obj[:,3]) = 61.0
432 histol_G_best_iter[iter,3] = 61.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0.  8. 84. 92.]
437 cord_individual_obj[indivial_i,:] = [ 1.  9. 139. 148.]
438 cord_individual_obj[indivial_i,:] = [ 2.  7. 86. 93.]
439 cord_individual_obj[indivial_i,:] = [ 3.  8. 84. 92.]
440 cord_individual_obj[indivial_i,:] = [ 4.  7. 125. 132.]
441 cord_individual_obj[indivial_i,:] = [ 5.  6. 101. 107.]
442 cord_individual_obj[indivial_i,:] = [ 6.  8. 95. 103.]
443 cord_individual_obj[indivial_i,:] = [ 7.  6. 78. 84.]
444 cord_individual_obj[indivial_i,:] = [ 8.  7. 92. 99.]
445 cord_individual_obj[indivial_i,:] = [ 9.  7. 124. 131.]
446 cord_individual_obj[indivial_i,:] = [10.  6. 87. 93.]
447 cord_individual_obj[indivial_i,:] = [11.  6. 165. 171.]
448 cord_individual_obj[indivial_i,:] = [12.  6. 85. 91.]
449 cord_individual_obj[indivial_i,:] = [13.  8. 53. 61.]
450 cord_individual_obj[indivial_i,:] = [14.  10. 118. 128.]
451 cord_individual_obj[indivial_i,:] = [15.  6. 97. 103.]
452 cord_individual_obj[indivial_i,:] = [16.  7. 113. 120.]
453 cord_individual_obj[indivial_i,:] = [17.  6. 84. 90.]
454 cord_individual_obj[indivial_i,:] = [18.  8. 177. 185.]
455 cord_individual_obj[indivial_i,:] = [19.  8. 119. 127.]
456 cord_individual_obj[indivial_i,:] = [20.  8. 112. 120.]
457 cord_individual_obj[indivial_i,:] = [21.  8. 104. 112.]
458 cord_individual_obj[indivial_i,:] = [22.  9. 92. 101.]
459 cord_individual_obj[indivial_i,:] = [23.  7. 51. 58.]
460 cord_individual_obj[indivial_i,:] = [24.  7. 73. 80.]
461
462 min(cord_individual_obj[:,3]) = 58.0
463 histol_G_best_iter[iter,3] = 58.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0.  8. 106. 114.]
468 cord_individual_obj[indivial_i,:] = [ 1.  7. 120. 127.]
469 cord_individual_obj[indivial_i,:] = [ 2.  12. 100. 112.]
470 cord_individual_obj[indivial_i,:] = [ 3.  8. 110. 118.]
471 cord_individual_obj[indivial_i,:] = [ 4.  6. 83. 89.]
472 cord_individual_obj[indivial_i,:] = [ 5.  8. 73. 81.]
473 cord_individual_obj[indivial_i,:] = [ 6.  8. 87. 95.]
474 cord_individual_obj[indivial_i,:] = [ 7.  7. 103. 110.]
475 cord_individual_obj[indivial_i,:] = [ 8.  8. 68. 76.]
476 cord_individual_obj[indivial_i,:] = [ 9.  9. 86. 95.]
477 cord_individual_obj[indivial_i,:] = [10.  9. 125. 134.]
478 cord_individual_obj[indivial_i,:] = [11.  8. 119. 127.]
479 cord_individual_obj[indivial_i,:] = [12.  9. 119. 128.]
480 cord_individual_obj[indivial_i,:] = [13. 12. 166. 178.]
481 cord_individual_obj[indivial_i,:] = [14.  8. 126. 134.]
482 cord_individual_obj[indivial_i,:] = [15.  9. 108. 117.]
483 cord_individual_obj[indivial_i,:] = [16.  8. 120. 128.]
484 cord_individual_obj[indivial_i,:] = [17.  9. 120. 129.]
485 cord_individual_obj[indivial_i,:] = [18.  7. 51. 58.]
486 cord_individual_obj[indivial_i,:] = [19.  8. 96. 104.]
487 cord_individual_obj[indivial_i,:] = [20.  8. 126. 134.]
488 cord_individual_obj[indivial_i,:] = [21.  8. 85. 93.]
489 cord_individual_obj[indivial_i,:] = [22.  8. 81. 89.]
490 cord_individual_obj[indivial_i,:] = [23.  8. 106. 114.]
491 cord_individual_obj[indivial_i,:] = [24. 10. 108. 118.]
492
493 min(cord_individual_obj[:,3]) = 58.0
494 histol_G_best_iter[iter,3] = 58.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0.  8. 92. 100.]
499 cord_individual_obj[indivial_i,:] = [ 1.  7. 139. 146.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 8. 114. 122.]
501 cord_individual_obj[indivial_i,:] = [ 3. 7. 112. 119.]
502 cord_individual_obj[indivial_i,:] = [ 4. 9. 136. 145.]
503 cord_individual_obj[indivial_i,:] = [ 5. 7. 153. 160.]
504 cord_individual_obj[indivial_i,:] = [ 6. 7. 64. 71.]
505 cord_individual_obj[indivial_i,:] = [ 7. 7. 82. 89.]
506 cord_individual_obj[indivial_i,:] = [ 8. 6. 126. 132.]
507 cord_individual_obj[indivial_i,:] = [ 9. 7. 84. 91.]
508 cord_individual_obj[indivial_i,:] = [10. 7. 86. 93.]
509 cord_individual_obj[indivial_i,:] = [11. 7. 133. 140.]
510 cord_individual_obj[indivial_i,:] = [12. 7. 79. 86.]
511 cord_individual_obj[indivial_i,:] = [13. 7. 51. 58.]
512 cord_individual_obj[indivial_i,:] = [14. 8. 97. 105.]
513 cord_individual_obj[indivial_i,:] = [15. 8. 89. 97.]
514 cord_individual_obj[indivial_i,:] = [16. 7. 186. 193.]
515 cord_individual_obj[indivial_i,:] = [17. 6. 129. 135.]
516 cord_individual_obj[indivial_i,:] = [18. 6. 80. 86.]
517 cord_individual_obj[indivial_i,:] = [19. 8. 111. 119.]
518 cord_individual_obj[indivial_i,:] = [20. 8. 144. 152.]
519 cord_individual_obj[indivial_i,:] = [21. 8. 142. 150.]
520 cord_individual_obj[indivial_i,:] = [22. 7. 94. 101.]
521 cord_individual_obj[indivial_i,:] = [23. 7. 117. 124.]
522 cord_individual_obj[indivial_i,:] = [24. 6. 153. 159.]
523
524 min(cord_individual_obj[:, 3]) = 58.0
525 histort_G_best_iter[iter, 3] = 58.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 8. 93. 101.]
530 cord_individual_obj[indivial_i,:] = [ 1. 6. 117. 123.]
531 cord_individual_obj[indivial_i,:] = [ 2. 8. 86. 94.]
532 cord_individual_obj[indivial_i,:] = [ 3. 8. 115. 123.]
533 cord_individual_obj[indivial_i,:] = [ 4. 9. 104. 113.]
534 cord_individual_obj[indivial_i,:] = [ 5. 7. 120. 127.]
535 cord_individual_obj[indivial_i,:] = [ 6. 9. 137. 146.]
536 cord_individual_obj[indivial_i,:] = [ 7. 7. 99. 106.]
537 cord_individual_obj[indivial_i,:] = [ 8. 6. 127. 133.]
538 cord_individual_obj[indivial_i,:] = [ 9. 6. 137. 143.]
539 cord_individual_obj[indivial_i,:] = [10. 8. 124. 132.]
540 cord_individual_obj[indivial_i,:] = [11. 6. 104. 110.]
541 cord_individual_obj[indivial_i,:] = [12. 8. 87. 95.]
542 cord_individual_obj[indivial_i,:] = [13. 8. 62. 70.]
543 cord_individual_obj[indivial_i,:] = [14. 8. 133. 141.]
544 cord_individual_obj[indivial_i,:] = [15. 7. 161. 168.]
545 cord_individual_obj[indivial_i,:] = [16. 7. 51. 58.]
546 cord_individual_obj[indivial_i,:] = [17. 7. 102. 109.]
547 cord_individual_obj[indivial_i,:] = [18. 6. 93. 99.]
548 cord_individual_obj[indivial_i,:] = [19. 10. 104. 114.]
549 cord_individual_obj[indivial_i,:] = [20. 8. 73. 81.]
550 cord_individual_obj[indivial_i,:] = [21. 8. 125. 133.]
551 cord_individual_obj[indivial_i,:] = [22. 8. 142. 150.]
552 cord_individual_obj[indivial_i,:] = [23. 9. 145. 154.]
553 cord_individual_obj[indivial_i,:] = [24. 9. 75. 84.]
554
555 min(cord_individual_obj[:, 3]) = 58.0
556 histort_G_best_iter[iter, 3] = 58.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 5. 89. 94.]
561 cord_individual_obj[indivial_i,:] = [ 1. 8. 96. 104.]
562 cord_individual_obj[indivial_i,:] = [ 2. 7. 143. 150.]
563 cord_individual_obj[indivial_i,:] = [ 3. 6. 135. 141.]
564 cord_individual_obj[indivial_i,:] = [ 4. 10. 148. 158.]
565 cord_individual_obj[indivial_i,:] = [ 5. 9. 79. 88.]
566 cord_individual_obj[indivial_i,:] = [ 6. 5. 123. 128.]
567 cord_individual_obj[indivial_i,:] = [ 7. 9. 136. 145.]
568 cord_individual_obj[indivial_i,:] = [ 8. 8. 77. 85.]
569 cord_individual_obj[indivial_i,:] = [ 9. 7. 111. 118.]
570 cord_individual_obj[indivial_i,:] = [10. 5. 116. 121.]
571 cord_individual_obj[indivial_i,:] = [11. 7. 86. 93.]
572 cord_individual_obj[indivial_i,:] = [12. 8. 104. 112.]
573 cord_individual_obj[indivial_i,:] = [13. 7. 139. 146.]
574 cord_individual_obj[indivial_i,:] = [14. 6. 163. 169.]
575 cord_individual_obj[indivial_i,:] = [15. 7. 51. 58.]
576 cord_individual_obj[indivial_i,:] = [16. 9. 151. 160.]
577 cord_individual_obj[indivial_i,:] = [17. 7. 86. 93.]
578 cord_individual_obj[indivial_i,:] = [18. 8. 87. 95.]
579 cord_individual_obj[indivial_i,:] = [19. 7. 104. 111.]
580 cord_individual_obj[indivial_i,:] = [20. 7. 123. 130.]
581 cord_individual_obj[indivial_i,:] = [21. 6. 115. 121.]
582 cord_individual_obj[indivial_i,:] = [22. 6. 131. 137.]
583 cord_individual_obj[indivial_i,:] = [23. 7. 114. 121.]

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unknown

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584     cord_individual_obj[indivial_i, :] = [ 24.  8. 120. 128.]
585
586     min(cord_individual_obj[:, 3]) = 58.0
587     historl_G_best_iter[iter, 3] = 58.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0.  8. 66. 74.]
592     cord_individual_obj[indivial_i, :] = [ 1.  9. 68. 77.]
593     cord_individual_obj[indivial_i, :] = [ 2.  6. 115. 121.]
594     cord_individual_obj[indivial_i, :] = [ 3.  7. 151. 158.]
595     cord_individual_obj[indivial_i, :] = [ 4.  7. 111. 118.]
596     cord_individual_obj[indivial_i, :] = [ 5.  7. 82. 89.]
597     cord_individual_obj[indivial_i, :] = [ 6.  9. 121. 130.]
598     cord_individual_obj[indivial_i, :] = [ 7.  6. 140. 146.]
599     cord_individual_obj[indivial_i, :] = [ 8.  7. 125. 132.]
600     cord_individual_obj[indivial_i, :] = [ 9.  9. 96. 105.]
601     cord_individual_obj[indivial_i, :] = [10.  8. 159. 167.]
602     cord_individual_obj[indivial_i, :] = [11.  6. 123. 129.]
603     cord_individual_obj[indivial_i, :] = [12.  8. 95. 103.]
604     cord_individual_obj[indivial_i, :] = [13.  8. 156. 164.]
605     cord_individual_obj[indivial_i, :] = [14.  7. 51. 58.]
606     cord_individual_obj[indivial_i, :] = [15.  9. 80. 89.]
607     cord_individual_obj[indivial_i, :] = [16.  7. 137. 144.]
608     cord_individual_obj[indivial_i, :] = [17.  8. 97. 105.]
609     cord_individual_obj[indivial_i, :] = [18.  7. 84. 91.]
610     cord_individual_obj[indivial_i, :] = [19.  8. 124. 132.]
611     cord_individual_obj[indivial_i, :] = [20.  7. 114. 121.]
612     cord_individual_obj[indivial_i, :] = [21.  6. 159. 165.]
613     cord_individual_obj[indivial_i, :] = [22.  9. 198. 207.]
614     cord_individual_obj[indivial_i, :] = [23.  8. 105. 113.]
615     cord_individual_obj[indivial_i, :] = [24.  8. 152. 160.]
616
617     min(cord_individual_obj[:, 3]) = 58.0
618     historl_G_best_iter[iter, 3] = 58.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0.  8. 108. 116.]
623     cord_individual_obj[indivial_i, :] = [ 1.  7. 101. 108.]
624     cord_individual_obj[indivial_i, :] = [ 2.  7. 145. 152.]
625     cord_individual_obj[indivial_i, :] = [ 3.  7. 141. 148.]
626     cord_individual_obj[indivial_i, :] = [ 4.  7. 123. 130.]
627     cord_individual_obj[indivial_i, :] = [ 5.  7. 151. 158.]
628     cord_individual_obj[indivial_i, :] = [ 6.  6. 83. 89.]
629     cord_individual_obj[indivial_i, :] = [ 7.  7. 179. 186.]
630     cord_individual_obj[indivial_i, :] = [ 8.  7. 119. 126.]
631     cord_individual_obj[indivial_i, :] = [ 9.  7. 185. 192.]
632     cord_individual_obj[indivial_i, :] = [10.  7. 232. 239.]
633     cord_individual_obj[indivial_i, :] = [11.  6. 124. 130.]
634     cord_individual_obj[indivial_i, :] = [12.  8. 105. 113.]
635     cord_individual_obj[indivial_i, :] = [13.  6. 115. 121.]
636     cord_individual_obj[indivial_i, :] = [14.  7. 77. 84.]
637     cord_individual_obj[indivial_i, :] = [15.  6. 66. 72.]
638     cord_individual_obj[indivial_i, :] = [16.  7. 158. 165.]
639     cord_individual_obj[indivial_i, :] = [17.  7. 50. 57.]
640     cord_individual_obj[indivial_i, :] = [18.  6. 112. 118.]
641     cord_individual_obj[indivial_i, :] = [19.  9. 123. 132.]
642     cord_individual_obj[indivial_i, :] = [20.  8. 113. 121.]
643     cord_individual_obj[indivial_i, :] = [21.  6. 67. 73.]
644     cord_individual_obj[indivial_i, :] = [22.  7. 51. 58.]
645     cord_individual_obj[indivial_i, :] = [23.  7. 126. 133.]
646     cord_individual_obj[indivial_i, :] = [24. 10. 156. 166.]
647
648     min(cord_individual_obj[:, 3]) = 57.0
649     historl_G_best_iter[iter, 3] = 57.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0.  7. 115. 122.]
654     cord_individual_obj[indivial_i, :] = [ 1.  9. 114. 123.]
655     cord_individual_obj[indivial_i, :] = [ 2.  7. 78. 85.]
656     cord_individual_obj[indivial_i, :] = [ 3.  7. 143. 150.]
657     cord_individual_obj[indivial_i, :] = [ 4.  7. 101. 108.]
658     cord_individual_obj[indivial_i, :] = [ 5.  7. 162. 169.]
659     cord_individual_obj[indivial_i, :] = [ 6.  8. 61. 69.]
660     cord_individual_obj[indivial_i, :] = [ 7.  9. 128. 137.]
661     cord_individual_obj[indivial_i, :] = [ 8.  6. 113. 119.]
662     cord_individual_obj[indivial_i, :] = [ 9.  8. 109. 117.]
663     cord_individual_obj[indivial_i, :] = [10.  7. 50. 57.]
664     cord_individual_obj[indivial_i, :] = [11.  6. 107. 113.]
665     cord_individual_obj[indivial_i, :] = [12.  8. 68. 76.]
666     cord_individual_obj[indivial_i, :] = [13.  8. 95. 103.]
667     cord_individual_obj[indivial_i, :] = [14.  6. 157. 163.]
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668 cord_individual_obj[indivial_i,:] = [ 15. 9. 152. 161.]
669 cord_individual_obj[indivial_i,:] = [16. 7. 87. 94.]
670 cord_individual_obj[indivial_i,:] = [ 17. 6. 154. 160.]
671 cord_individual_obj[indivial_i,:] = [18. 7. 74. 81.]
672 cord_individual_obj[indivial_i,:] = [19. 7. 85. 92.]
673 cord_individual_obj[indivial_i,:] = [20. 8. 79. 87.]
674 cord_individual_obj[indivial_i,:] = [21. 6. 68. 74.]
675 cord_individual_obj[indivial_i,:] = [22. 8. 77. 85.]
676 cord_individual_obj[indivial_i,:] = [23. 6. 72. 78.]
677 cord_individual_obj[indivial_i,:] = [ 24. 7. 110. 117.]
678
679 min(cord_individual_obj[:, 3]) = 57.0
680 historl_G_best_iter[iter, 3] = 57.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 161.0
689 Proportion_of_area = 0.14907407407407408
690 BEST_CHROM =
691     berth: [11.5 7. 13. 19.5 9. 2. 25. 17. 17. 21.5 25.5 3.5 2.5 15.]
692     time: [0. 0. 4. 0. 3. 0. 0. 4. 2. 5. 3. 4. 2. 0.]
693     num_QC: [1. 5. 2. 4. 3. 4. 2. 4. 4. 4. 3. 5. 3. 2.]
694 Objective function values and some other indicators:
695 Obj0 = 7.00          Obj1 = 50.00          Obj0 + Obj1 = 57.00
696 Total movement of crane: 6.00
697 Total waiting time in berth position: 27.00
698 Total index of q during berthing: 904.00
699 Specific arrangement for each vessel:
700
    V_id: 0           li: 3.0           xi: 11.5           bow of i: 10.0           tail of i: 13.0           gama_i0: 0.0           gama_i1: 2
    .0                 gama_i1 + 1: 3.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 60.0           work
    load_i: 60.0       work load gap_i: 0
701
    V_id: 1           li: 6.0           xi: 7.0           bow of i: 4.0           tail of i: 10.0           gama_i0: 0.0           gama_i1: 0.0
    .0                 gama_i1 + 1: 1.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work load_i:
    60.0               work load gap_i: 0
702
    V_id: 2           li: 4.0           xi: 13.0           bow of i: 11.0           tail of i: 15.0           gama_i0: 4.0           gama_i1: 7
    .0                 gama_i1 + 1: 8.0       gama_i1 - gama_i0: 3.0           duration_time_i: 4.0           demand_i: 140.0           work
    load_i: 140.0      work load gap_i: 0
703
    V_id: 3           li: 5.0           xi: 19.5           bow of i: 17.0           tail of i: 22.0           gama_i0: 0.0           gama_i1: 0
    .0                 gama_i1 + 1: 1.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
    load_i: 60.0       work load gap_i: 0
704
    V_id: 4           li: 4.0           xi: 9.0           bow of i: 7.0           tail of i: 11.0           gama_i0: 3.0           gama_i1: 5.0
    .0                 gama_i1 + 1: 6.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 160.0           work load_i:
    160.0              work load gap_i: 0
705
    V_id: 5           li: 4.0           xi: 2.0           bow of i: 0.0           tail of i: 4.0           gama_i0: 0.0           gama_i1: 1.0
    .0                 gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0           work load_i:
    140.0              work load gap_i: 0
706
    V_id: 6           li: 6.0           xi: 25.0           bow of i: 22.0           tail of i: 28.0           gama_i0: 0.0           gama_i1: 2
    .0                 gama_i1 + 1: 3.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 100.0           work
    load_i: 100.0      work load gap_i: 0
707
    V_id: 7           li: 4.0           xi: 17.0           bow of i: 15.0           tail of i: 19.0           gama_i0: 4.0           gama_i1: 5
    .0                 gama_i1 + 1: 6.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0           work
    load_i: 160.0      work load gap_i: 0
708
    V_id: 8           li: 8.0           xi: 17.0           bow of i: 13.0           tail of i: 21.0           gama_i0: 2.0           gama_i1: 3
    .0                 gama_i1 + 1: 4.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0           work
    load_i: 160.0      work load gap_i: 0
709
    V_id: 9           li: 5.0           xi: 21.5           bow of i: 19.0           tail of i: 24.0           gama_i0: 5.0           gama_i1: 6
    .0                 gama_i1 + 1: 7.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0           work
    load_i: 100.0      work load gap_i: 0
710
    V_id: 10          li: 9.0           xi: 25.5           bow of i: 21.0           tail of i: 30.0           gama_i0: 3.0           gama_i1: 1
    : 4.0              gama_i1 + 1: 5.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0           work
    load_i: 120.0      work load gap_i: 0
711
    V_id: 11          li: 7.0           xi: 3.5           bow of i: 0.0           tail of i: 7.0           gama_i0: 4.0           gama_i1: 5.0
    .0                 gama_i1 + 1: 6.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0           work load_i:
    160.0              work load gap_i: 0
712
    V_id: 12          li: 5.0           xi: 2.5           bow of i: 0.0           tail of i: 5.0           gama_i0: 2.0           gama_i1: 3.0
    .0                 gama_i1 + 1: 4.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0           work load_i:
    80.0               work load gap_i: 0
713
    V_id: 13          li: 4.0           xi: 15.0           bow of i: 13.0           tail of i: 17.0           gama_i0: 0.0           gama_i1: 1
    : 1.0              gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0           work
    load_i: 80.0       work load gap_i: 0
714
715 Algorithm finished and the total CPU time: 376 s
716 End
717

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