

unknown

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80 cord_individual_obj[indivial_i,:] = [16. 10. 79. 89.]
81 cord_individual_obj[indivial_i,:] = [17. 9. 172. 181.]
82 cord_individual_obj[indivial_i,:] = [18. 10. 197. 207.]
83 cord_individual_obj[indivial_i,:] = [19. 10. 176. 186.]
84 cord_individual_obj[indivial_i,:] = [20. 9. 173. 182.]
85 cord_individual_obj[indivial_i,:] = [21. 10. 160. 170.]
86 cord_individual_obj[indivial_i,:] = [22. 10. 110. 120.]
87 cord_individual_obj[indivial_i,:] = [23. 10. 129. 139.]
88 cord_individual_obj[indivial_i,:] = [24. 9. 120. 129.]
89
90 min(cord_individual_obj[:,3]) = 86.0
91 historl_G_best_iter[iter, 3] = 86.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 10. 151. 161.]
96 cord_individual_obj[indivial_i,:] = [ 1. 10. 205. 215.]
97 cord_individual_obj[indivial_i,:] = [ 2. 9. 77. 86.]
98 cord_individual_obj[indivial_i,:] = [ 3. 9. 182. 191.]
99 cord_individual_obj[indivial_i,:] = [ 4. 10. 89. 99.]
100 cord_individual_obj[indivial_i,:] = [ 5. 10. 214. 224.]
101 cord_individual_obj[indivial_i,:] = [ 6. 9. 149. 158.]
102 cord_individual_obj[indivial_i,:] = [ 7. 8. 165. 173.]
103 cord_individual_obj[indivial_i,:] = [ 8. 11. 112. 123.]
104 cord_individual_obj[indivial_i,:] = [ 9. 11. 107. 118.]
105 cord_individual_obj[indivial_i,:] = [10. 11. 246. 257.]
106 cord_individual_obj[indivial_i,:] = [11. 9. 118. 127.]
107 cord_individual_obj[indivial_i,:] = [12. 8. 102. 110.]
108 cord_individual_obj[indivial_i,:] = [13. 8. 128. 136.]
109 cord_individual_obj[indivial_i,:] = [14. 13. 150. 163.]
110 cord_individual_obj[indivial_i,:] = [15. 12. 120. 132.]
111 cord_individual_obj[indivial_i,:] = [16. 12. 124. 136.]
112 cord_individual_obj[indivial_i,:] = [17. 10. 122. 132.]
113 cord_individual_obj[indivial_i,:] = [18. 9. 125. 134.]
114 cord_individual_obj[indivial_i,:] = [19. 9. 219. 228.]
115 cord_individual_obj[indivial_i,:] = [20. 10. 111. 121.]
116 cord_individual_obj[indivial_i,:] = [21. 10. 187. 197.]
117 cord_individual_obj[indivial_i,:] = [22. 12. 112. 124.]
118 cord_individual_obj[indivial_i,:] = [23. 11. 147. 158.]
119 cord_individual_obj[indivial_i,:] = [24. 10. 111. 121.]
120
121 min(cord_individual_obj[:,3]) = 86.0
122 historl_G_best_iter[iter, 3] = 86.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 12. 155. 167.]
127 cord_individual_obj[indivial_i,:] = [ 1. 9. 164. 173.]
128 cord_individual_obj[indivial_i,:] = [ 2. 10. 98. 108.]
129 cord_individual_obj[indivial_i,:] = [ 3. 10. 132. 142.]
130 cord_individual_obj[indivial_i,:] = [ 4. 11. 100. 111.]
131 cord_individual_obj[indivial_i,:] = [ 5. 10. 195. 205.]
132 cord_individual_obj[indivial_i,:] = [ 6. 10. 148. 158.]
133 cord_individual_obj[indivial_i,:] = [ 7. 8. 116. 124.]
134 cord_individual_obj[indivial_i,:] = [ 8. 10. 130. 140.]
135 cord_individual_obj[indivial_i,:] = [ 9. 12. 88. 100.]
136 cord_individual_obj[indivial_i,:] = [10. 9. 77. 86.]
137 cord_individual_obj[indivial_i,:] = [11. 11. 138. 149.]
138 cord_individual_obj[indivial_i,:] = [12. 7. 142. 149.]
139 cord_individual_obj[indivial_i,:] = [13. 11. 183. 194.]
140 cord_individual_obj[indivial_i,:] = [14. 13. 163. 176.]
141 cord_individual_obj[indivial_i,:] = [15. 10. 200. 210.]
142 cord_individual_obj[indivial_i,:] = [16. 12. 176. 188.]
143 cord_individual_obj[indivial_i,:] = [17. 13. 122. 135.]
144 cord_individual_obj[indivial_i,:] = [18. 9. 118. 127.]
145 cord_individual_obj[indivial_i,:] = [19. 9. 213. 222.]
146 cord_individual_obj[indivial_i,:] = [20. 10. 150. 160.]
147 cord_individual_obj[indivial_i,:] = [21. 8. 207. 215.]
148 cord_individual_obj[indivial_i,:] = [22. 10. 131. 141.]
149 cord_individual_obj[indivial_i,:] = [23. 11. 85. 96.]
150 cord_individual_obj[indivial_i,:] = [24. 9. 120. 129.]
151
152 min(cord_individual_obj[:,3]) = 86.0
153 historl_G_best_iter[iter, 3] = 86.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 11. 118. 129.]
158 cord_individual_obj[indivial_i,:] = [ 1. 8. 111. 119.]
159 cord_individual_obj[indivial_i,:] = [ 2. 9. 119. 128.]
160 cord_individual_obj[indivial_i,:] = [ 3. 10. 100. 110.]
161 cord_individual_obj[indivial_i,:] = [ 4. 12. 128. 140.]
162 cord_individual_obj[indivial_i,:] = [ 5. 10. 129. 139.]
163 cord_individual_obj[indivial_i,:] = [ 6. 10. 153. 163.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 9. 208. 217.]
165 cord_individual_obj[indivial_i,:] = [ 8. 9. 82. 91.]
166 cord_individual_obj[indivial_i,:] = [ 9. 10. 111. 121.]
167 cord_individual_obj[indivial_i,:] = [ 10. 9. 216. 225.]
168 cord_individual_obj[indivial_i,:] = [ 11. 9. 124. 133.]
169 cord_individual_obj[indivial_i,:] = [ 12. 10. 176. 186.]
170 cord_individual_obj[indivial_i,:] = [ 13. 9. 113. 122.]
171 cord_individual_obj[indivial_i,:] = [ 14. 12. 111. 123.]
172 cord_individual_obj[indivial_i,:] = [ 15. 9. 149. 158.]
173 cord_individual_obj[indivial_i,:] = [ 16. 10. 94. 104.]
174 cord_individual_obj[indivial_i,:] = [ 17. 9. 130. 139.]
175 cord_individual_obj[indivial_i,:] = [ 18. 9. 120. 129.]
176 cord_individual_obj[indivial_i,:] = [ 19. 9. 77. 86.]
177 cord_individual_obj[indivial_i,:] = [ 20. 10. 160. 170.]
178 cord_individual_obj[indivial_i,:] = [ 21. 8. 143. 151.]
179 cord_individual_obj[indivial_i,:] = [ 22. 9. 106. 115.]
180 cord_individual_obj[indivial_i,:] = [ 23. 10. 124. 134.]
181 cord_individual_obj[indivial_i,:] = [ 24. 8. 114. 122.]
182
183 min(cord_individual_obj[:,3]) = 86.0
184 historl_G_best_iter[iter,3] = 86.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 11. 113. 124.]
189 cord_individual_obj[indivial_i,:] = [ 1. 10. 131. 141.]
190 cord_individual_obj[indivial_i,:] = [ 2. 10. 184. 194.]
191 cord_individual_obj[indivial_i,:] = [ 3. 8. 159. 167.]
192 cord_individual_obj[indivial_i,:] = [ 4. 12. 119. 131.]
193 cord_individual_obj[indivial_i,:] = [ 5. 8. 119. 127.]
194 cord_individual_obj[indivial_i,:] = [ 6. 8. 151. 159.]
195 cord_individual_obj[indivial_i,:] = [ 7. 9. 184. 193.]
196 cord_individual_obj[indivial_i,:] = [ 8. 10. 154. 164.]
197 cord_individual_obj[indivial_i,:] = [ 9. 10. 147. 157.]
198 cord_individual_obj[indivial_i,:] = [ 10. 9. 77. 86.]
199 cord_individual_obj[indivial_i,:] = [ 11. 9. 192. 201.]
200 cord_individual_obj[indivial_i,:] = [ 12. 9. 104. 113.]
201 cord_individual_obj[indivial_i,:] = [ 13. 11. 116. 127.]
202 cord_individual_obj[indivial_i,:] = [ 14. 11. 124. 135.]
203 cord_individual_obj[indivial_i,:] = [ 15. 10. 149. 159.]
204 cord_individual_obj[indivial_i,:] = [ 16. 10. 116. 126.]
205 cord_individual_obj[indivial_i,:] = [ 17. 8. 161. 169.]
206 cord_individual_obj[indivial_i,:] = [ 18. 11. 107. 118.]
207 cord_individual_obj[indivial_i,:] = [ 19. 11. 200. 211.]
208 cord_individual_obj[indivial_i,:] = [ 20. 9. 110. 119.]
209 cord_individual_obj[indivial_i,:] = [ 21. 9. 99. 108.]
210 cord_individual_obj[indivial_i,:] = [ 22. 10. 132. 142.]
211 cord_individual_obj[indivial_i,:] = [ 23. 10. 137. 147.]
212 cord_individual_obj[indivial_i,:] = [ 24. 10. 119. 129.]
213
214 min(cord_individual_obj[:,3]) = 86.0
215 historl_G_best_iter[iter,3] = 86.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 12. 153. 165.]
220 cord_individual_obj[indivial_i,:] = [ 1. 10. 147. 157.]
221 cord_individual_obj[indivial_i,:] = [ 2. 9. 89. 98.]
222 cord_individual_obj[indivial_i,:] = [ 3. 11. 182. 193.]
223 cord_individual_obj[indivial_i,:] = [ 4. 12. 224. 236.]
224 cord_individual_obj[indivial_i,:] = [ 5. 9. 102. 111.]
225 cord_individual_obj[indivial_i,:] = [ 6. 12. 143. 155.]
226 cord_individual_obj[indivial_i,:] = [ 7. 11. 100. 111.]
227 cord_individual_obj[indivial_i,:] = [ 8. 11. 100. 111.]
228 cord_individual_obj[indivial_i,:] = [ 9. 12. 122. 134.]
229 cord_individual_obj[indivial_i,:] = [ 10. 10. 135. 145.]
230 cord_individual_obj[indivial_i,:] = [ 11. 9. 178. 187.]
231 cord_individual_obj[indivial_i,:] = [ 12. 9. 116. 125.]
232 cord_individual_obj[indivial_i,:] = [ 13. 11. 139. 150.]
233 cord_individual_obj[indivial_i,:] = [ 14. 10. 165. 175.]
234 cord_individual_obj[indivial_i,:] = [ 15. 10. 135. 145.]
235 cord_individual_obj[indivial_i,:] = [ 16. 9. 161. 170.]
236 cord_individual_obj[indivial_i,:] = [ 17. 10. 167. 177.]
237 cord_individual_obj[indivial_i,:] = [ 18. 11. 127. 138.]
238 cord_individual_obj[indivial_i,:] = [ 19. 9. 77. 86.]
239 cord_individual_obj[indivial_i,:] = [ 20. 10. 106. 116.]
240 cord_individual_obj[indivial_i,:] = [ 21. 8. 135. 143.]
241 cord_individual_obj[indivial_i,:] = [ 22. 9. 133. 142.]
242 cord_individual_obj[indivial_i,:] = [ 23. 9. 168. 177.]
243 cord_individual_obj[indivial_i,:] = [ 24. 12. 125. 137.]
244
245 min(cord_individual_obj[:,3]) = 86.0
246 historl_G_best_iter[iter,3] = 86.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 13. 186. 199.]
251 cord_individual_obj[indivial_i, :] = [ 1. 8. 142. 150.]
252 cord_individual_obj[indivial_i, :] = [ 2. 9. 111. 120.]
253 cord_individual_obj[indivial_i, :] = [ 3. 11. 127. 138.]
254 cord_individual_obj[indivial_i, :] = [ 4. 9. 77. 86.]
255 cord_individual_obj[indivial_i, :] = [ 5. 14. 93. 107.]
256 cord_individual_obj[indivial_i, :] = [ 6. 11. 183. 194.]
257 cord_individual_obj[indivial_i, :] = [ 7. 8. 159. 167.]
258 cord_individual_obj[indivial_i, :] = [ 8. 11. 135. 146.]
259 cord_individual_obj[indivial_i, :] = [ 9. 10. 86. 96.]
260 cord_individual_obj[indivial_i, :] = [ 10. 11. 167. 178.]
261 cord_individual_obj[indivial_i, :] = [ 11. 11. 193. 204.]
262 cord_individual_obj[indivial_i, :] = [ 12. 7. 101. 108.]
263 cord_individual_obj[indivial_i, :] = [ 13. 13. 149. 162.]
264 cord_individual_obj[indivial_i, :] = [ 14. 12. 125. 137.]
265 cord_individual_obj[indivial_i, :] = [ 15. 11. 104. 115.]
266 cord_individual_obj[indivial_i, :] = [ 16. 13. 175. 188.]
267 cord_individual_obj[indivial_i, :] = [ 17. 9. 129. 138.]
268 cord_individual_obj[indivial_i, :] = [ 18. 10. 158. 168.]
269 cord_individual_obj[indivial_i, :] = [ 19. 10. 236. 246.]
270 cord_individual_obj[indivial_i, :] = [ 20. 10. 114. 124.]
271 cord_individual_obj[indivial_i, :] = [ 21. 9. 124. 133.]
272 cord_individual_obj[indivial_i, :] = [ 22. 9. 130. 139.]
273 cord_individual_obj[indivial_i, :] = [ 23. 10. 123. 133.]
274 cord_individual_obj[indivial_i, :] = [ 24. 9. 175. 184.]
275

276 min(cord_individual_obj[:, 3]) = 86.0
277 historl_G_best_iter[iter, 3] = 86.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 11. 160. 171.]
282 cord_individual_obj[indivial_i, :] = [ 1. 11. 101. 112.]
283 cord_individual_obj[indivial_i, :] = [ 2. 10. 169. 179.]
284 cord_individual_obj[indivial_i, :] = [ 3. 9. 140. 149.]
285 cord_individual_obj[indivial_i, :] = [ 4. 10. 116. 126.]
286 cord_individual_obj[indivial_i, :] = [ 5. 12. 150. 162.]
287 cord_individual_obj[indivial_i, :] = [ 6. 9. 163. 172.]
288 cord_individual_obj[indivial_i, :] = [ 7. 8. 221. 229.]
289 cord_individual_obj[indivial_i, :] = [ 8. 9. 104. 113.]
290 cord_individual_obj[indivial_i, :] = [ 9. 9. 147. 156.]
291 cord_individual_obj[indivial_i, :] = [ 10. 9. 150. 159.]
292 cord_individual_obj[indivial_i, :] = [ 11. 10. 171. 181.]
293 cord_individual_obj[indivial_i, :] = [ 12. 8. 174. 182.]
294 cord_individual_obj[indivial_i, :] = [ 13. 8. 94. 102.]
295 cord_individual_obj[indivial_i, :] = [ 14. 10. 250. 260.]
296 cord_individual_obj[indivial_i, :] = [ 15. 10. 158. 168.]
297 cord_individual_obj[indivial_i, :] = [ 16. 12. 153. 165.]
298 cord_individual_obj[indivial_i, :] = [ 17. 10. 147. 157.]
299 cord_individual_obj[indivial_i, :] = [ 18. 10. 138. 148.]
300 cord_individual_obj[indivial_i, :] = [ 19. 9. 77. 86.]
301 cord_individual_obj[indivial_i, :] = [ 20. 8. 120. 128.]
302 cord_individual_obj[indivial_i, :] = [ 21. 8. 168. 176.]
303 cord_individual_obj[indivial_i, :] = [ 22. 10. 111. 121.]
304 cord_individual_obj[indivial_i, :] = [ 23. 9. 154. 163.]
305 cord_individual_obj[indivial_i, :] = [ 24. 11. 114. 125.]
306

307 min(cord_individual_obj[:, 3]) = 86.0
308 historl_G_best_iter[iter, 3] = 86.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 10. 127. 137.]
313 cord_individual_obj[indivial_i, :] = [ 1. 10. 152. 162.]
314 cord_individual_obj[indivial_i, :] = [ 2. 9. 160. 169.]
315 cord_individual_obj[indivial_i, :] = [ 3. 8. 110. 118.]
316 cord_individual_obj[indivial_i, :] = [ 4. 10. 102. 112.]
317 cord_individual_obj[indivial_i, :] = [ 5. 9. 132. 141.]
318 cord_individual_obj[indivial_i, :] = [ 6. 10. 147. 157.]
319 cord_individual_obj[indivial_i, :] = [ 7. 8. 157. 165.]
320 cord_individual_obj[indivial_i, :] = [ 8. 9. 102. 111.]
321 cord_individual_obj[indivial_i, :] = [ 9. 11. 140. 151.]
322 cord_individual_obj[indivial_i, :] = [ 10. 10. 166. 176.]
323 cord_individual_obj[indivial_i, :] = [ 11. 8. 216. 224.]
324 cord_individual_obj[indivial_i, :] = [ 12. 9. 171. 180.]
325 cord_individual_obj[indivial_i, :] = [ 13. 10. 109. 119.]
326 cord_individual_obj[indivial_i, :] = [ 14. 9. 77. 86.]
327 cord_individual_obj[indivial_i, :] = [ 15. 9. 118. 127.]
328 cord_individual_obj[indivial_i, :] = [ 16. 13. 115. 128.]
329 cord_individual_obj[indivial_i, :] = [ 17. 9. 87. 96.]
330 cord_individual_obj[indivial_i, :] = [ 18. 10. 100. 110.]
331 cord_individual_obj[indivial_i, :] = [ 19. 12. 144. 156.]

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332 cord_individual_obj[indivial_i, :] = [ 20. 11. 147. 158.]
333 cord_individual_obj[indivial_i, :] = [ 21. 9. 146. 155.]
334 cord_individual_obj[indivial_i, :] = [ 22. 10. 185. 195.]
335 cord_individual_obj[indivial_i, :] = [ 23. 12. 154. 166.]
336 cord_individual_obj[indivial_i, :] = [ 24. 10. 164. 174.]
337
338 min(cord_individual_obj[:, 3]) = 86.0
339 histol_G_best_iter[iter, 3] = 86.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i, :] = [ 0. 9. 81. 90.]
344 cord_individual_obj[indivial_i, :] = [ 1. 9. 126. 135.]
345 cord_individual_obj[indivial_i, :] = [ 2. 11. 227. 238.]
346 cord_individual_obj[indivial_i, :] = [ 3. 10. 117. 127.]
347 cord_individual_obj[indivial_i, :] = [ 4. 11. 108. 119.]
348 cord_individual_obj[indivial_i, :] = [ 5. 8. 160. 168.]
349 cord_individual_obj[indivial_i, :] = [ 6. 10. 118. 128.]
350 cord_individual_obj[indivial_i, :] = [ 7. 9. 201. 210.]
351 cord_individual_obj[indivial_i, :] = [ 8. 11. 113. 124.]
352 cord_individual_obj[indivial_i, :] = [ 9. 9. 120. 129.]
353 cord_individual_obj[indivial_i, :] = [ 10. 10. 215. 225.]
354 cord_individual_obj[indivial_i, :] = [ 11. 9. 77. 86.]
355 cord_individual_obj[indivial_i, :] = [ 12. 8. 100. 108.]
356 cord_individual_obj[indivial_i, :] = [ 13. 11. 149. 160.]
357 cord_individual_obj[indivial_i, :] = [ 14. 11. 136. 147.]
358 cord_individual_obj[indivial_i, :] = [ 15. 9. 139. 148.]
359 cord_individual_obj[indivial_i, :] = [ 16. 9. 110. 119.]
360 cord_individual_obj[indivial_i, :] = [ 17. 7. 188. 195.]
361 cord_individual_obj[indivial_i, :] = [ 18. 11. 120. 131.]
362 cord_individual_obj[indivial_i, :] = [ 19. 8. 120. 128.]
363 cord_individual_obj[indivial_i, :] = [ 20. 10. 103. 113.]
364 cord_individual_obj[indivial_i, :] = [ 21. 10. 87. 97.]
365 cord_individual_obj[indivial_i, :] = [ 22. 10. 114. 124.]
366 cord_individual_obj[indivial_i, :] = [ 23. 9. 137. 146.]
367 cord_individual_obj[indivial_i, :] = [ 24. 11. 107. 118.]
368
369 min(cord_individual_obj[:, 3]) = 86.0
370 histol_G_best_iter[iter, 3] = 86.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i, :] = [ 0. 10. 139. 149.]
375 cord_individual_obj[indivial_i, :] = [ 1. 12. 158. 170.]
376 cord_individual_obj[indivial_i, :] = [ 2. 9. 77. 86.]
377 cord_individual_obj[indivial_i, :] = [ 3. 10. 100. 110.]
378 cord_individual_obj[indivial_i, :] = [ 4. 11. 180. 191.]
379 cord_individual_obj[indivial_i, :] = [ 5. 9. 141. 150.]
380 cord_individual_obj[indivial_i, :] = [ 6. 11. 177. 188.]
381 cord_individual_obj[indivial_i, :] = [ 7. 9. 111. 120.]
382 cord_individual_obj[indivial_i, :] = [ 8. 11. 211. 222.]
383 cord_individual_obj[indivial_i, :] = [ 9. 12. 102. 114.]
384 cord_individual_obj[indivial_i, :] = [ 10. 10. 150. 160.]
385 cord_individual_obj[indivial_i, :] = [ 11. 9. 245. 254.]
386 cord_individual_obj[indivial_i, :] = [ 12. 9. 189. 198.]
387 cord_individual_obj[indivial_i, :] = [ 13. 9. 109. 118.]
388 cord_individual_obj[indivial_i, :] = [ 14. 8. 148. 156.]
389 cord_individual_obj[indivial_i, :] = [ 15. 12. 119. 131.]
390 cord_individual_obj[indivial_i, :] = [ 16. 11. 162. 173.]
391 cord_individual_obj[indivial_i, :] = [ 17. 9. 101. 110.]
392 cord_individual_obj[indivial_i, :] = [ 18. 12. 150. 162.]
393 cord_individual_obj[indivial_i, :] = [ 19. 10. 168. 178.]
394 cord_individual_obj[indivial_i, :] = [ 20. 11. 102. 113.]
395 cord_individual_obj[indivial_i, :] = [ 21. 10. 151. 161.]
396 cord_individual_obj[indivial_i, :] = [ 22. 11. 100. 111.]
397 cord_individual_obj[indivial_i, :] = [ 23. 9. 111. 120.]
398 cord_individual_obj[indivial_i, :] = [ 24. 12. 166. 178.]
399
400 min(cord_individual_obj[:, 3]) = 86.0
401 histol_G_best_iter[iter, 3] = 86.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i, :] = [ 0. 9. 145. 154.]
406 cord_individual_obj[indivial_i, :] = [ 1. 10. 105. 115.]
407 cord_individual_obj[indivial_i, :] = [ 2. 10. 100. 110.]
408 cord_individual_obj[indivial_i, :] = [ 3. 10. 190. 200.]
409 cord_individual_obj[indivial_i, :] = [ 4. 12. 167. 179.]
410 cord_individual_obj[indivial_i, :] = [ 5. 12. 216. 228.]
411 cord_individual_obj[indivial_i, :] = [ 6. 11. 169. 180.]
412 cord_individual_obj[indivial_i, :] = [ 7. 8. 106. 114.]
413 cord_individual_obj[indivial_i, :] = [ 8. 11. 114. 125.]
414 cord_individual_obj[indivial_i, :] = [ 9. 10. 79. 89.]
415 cord_individual_obj[indivial_i, :] = [ 10. 9. 181. 190.]

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416 cord_individual_obj[indivial_i,:] = [11. 9. 77. 86.]
417 cord_individual_obj[indivial_i,:] = [12. 9. 190. 199.]
418 cord_individual_obj[indivial_i,:] = [13. 11. 120. 131.]
419 cord_individual_obj[indivial_i,:] = [14. 11. 155. 166.]
420 cord_individual_obj[indivial_i,:] = [15. 11. 159. 170.]
421 cord_individual_obj[indivial_i,:] = [16. 11. 131. 142.]
422 cord_individual_obj[indivial_i,:] = [17. 9. 166. 175.]
423 cord_individual_obj[indivial_i,:] = [18. 10. 200. 210.]
424 cord_individual_obj[indivial_i,:] = [19. 11. 128. 139.]
425 cord_individual_obj[indivial_i,:] = [20. 9. 140. 149.]
426 cord_individual_obj[indivial_i,:] = [21. 10. 165. 175.]
427 cord_individual_obj[indivial_i,:] = [22. 9. 181. 190.]
428 cord_individual_obj[indivial_i,:] = [23. 11. 100. 111.]
429 cord_individual_obj[indivial_i,:] = [24. 9. 132. 141.]
430
431 min(cord_individual_obj[:,3]) = 86.0
432 histol_G_best_iter[iter,3] = 86.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [0. 12. 154. 166.]
437 cord_individual_obj[indivial_i,:] = [1. 10. 148. 158.]
438 cord_individual_obj[indivial_i,:] = [2. 9. 96. 105.]
439 cord_individual_obj[indivial_i,:] = [3. 9. 134. 143.]
440 cord_individual_obj[indivial_i,:] = [4. 10. 115. 125.]
441 cord_individual_obj[indivial_i,:] = [5. 9. 77. 86.]
442 cord_individual_obj[indivial_i,:] = [6. 9. 174. 183.]
443 cord_individual_obj[indivial_i,:] = [7. 9. 108. 117.]
444 cord_individual_obj[indivial_i,:] = [8. 10. 106. 116.]
445 cord_individual_obj[indivial_i,:] = [9. 10. 93. 103.]
446 cord_individual_obj[indivial_i,:] = [10. 13. 128. 141.]
447 cord_individual_obj[indivial_i,:] = [11. 9. 151. 160.]
448 cord_individual_obj[indivial_i,:] = [12. 7. 162. 169.]
449 cord_individual_obj[indivial_i,:] = [13. 9. 153. 162.]
450 cord_individual_obj[indivial_i,:] = [14. 12. 127. 139.]
451 cord_individual_obj[indivial_i,:] = [15. 12. 151. 163.]
452 cord_individual_obj[indivial_i,:] = [16. 12. 165. 177.]
453 cord_individual_obj[indivial_i,:] = [17. 9. 112. 121.]
454 cord_individual_obj[indivial_i,:] = [18. 9. 116. 125.]
455 cord_individual_obj[indivial_i,:] = [19. 9. 257. 266.]
456 cord_individual_obj[indivial_i,:] = [20. 11. 116. 127.]
457 cord_individual_obj[indivial_i,:] = [21. 9. 162. 171.]
458 cord_individual_obj[indivial_i,:] = [22. 11. 139. 150.]
459 cord_individual_obj[indivial_i,:] = [23. 10. 117. 127.]
460 cord_individual_obj[indivial_i,:] = [24. 10. 123. 133.]
461
462 min(cord_individual_obj[:,3]) = 86.0
463 histol_G_best_iter[iter,3] = 86.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [0. 10. 182. 192.]
468 cord_individual_obj[indivial_i,:] = [1. 9. 109. 118.]
469 cord_individual_obj[indivial_i,:] = [2. 10. 116. 126.]
470 cord_individual_obj[indivial_i,:] = [3. 8. 136. 144.]
471 cord_individual_obj[indivial_i,:] = [4. 11. 140. 151.]
472 cord_individual_obj[indivial_i,:] = [5. 11. 130. 141.]
473 cord_individual_obj[indivial_i,:] = [6. 10. 136. 146.]
474 cord_individual_obj[indivial_i,:] = [7. 9. 139. 148.]
475 cord_individual_obj[indivial_i,:] = [8. 9. 104. 113.]
476 cord_individual_obj[indivial_i,:] = [9. 10. 152. 162.]
477 cord_individual_obj[indivial_i,:] = [10. 9. 191. 200.]
478 cord_individual_obj[indivial_i,:] = [11. 11. 142. 153.]
479 cord_individual_obj[indivial_i,:] = [12. 10. 140. 150.]
480 cord_individual_obj[indivial_i,:] = [13. 9. 141. 150.]
481 cord_individual_obj[indivial_i,:] = [14. 12. 199. 211.]
482 cord_individual_obj[indivial_i,:] = [15. 11. 163. 174.]
483 cord_individual_obj[indivial_i,:] = [16. 11. 138. 149.]
484 cord_individual_obj[indivial_i,:] = [17. 8. 100. 108.]
485 cord_individual_obj[indivial_i,:] = [18. 10. 137. 147.]
486 cord_individual_obj[indivial_i,:] = [19. 9. 77. 86.]
487 cord_individual_obj[indivial_i,:] = [20. 9. 151. 160.]
488 cord_individual_obj[indivial_i,:] = [21. 9. 213. 222.]
489 cord_individual_obj[indivial_i,:] = [22. 9. 95. 104.]
490 cord_individual_obj[indivial_i,:] = [23. 11. 141. 152.]
491 cord_individual_obj[indivial_i,:] = [24. 9. 74. 83.]
492
493 min(cord_individual_obj[:,3]) = 83.0
494 histol_G_best_iter[iter,3] = 83.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [0. 9. 86. 95.]
499 cord_individual_obj[indivial_i,:] = [1. 9. 215. 224.]

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500 cord_individual_obj[indivial_i, :] = [ 2. 11. 157. 168.]
501 cord_individual_obj[indivial_i, :] = [ 3. 8. 160. 168.]
502 cord_individual_obj[indivial_i, :] = [ 4. 10. 178. 188.]
503 cord_individual_obj[indivial_i, :] = [ 5. 9. 165. 174.]
504 cord_individual_obj[indivial_i, :] = [ 6. 11. 152. 163.]
505 cord_individual_obj[indivial_i, :] = [ 7. 10. 143. 153.]
506 cord_individual_obj[indivial_i, :] = [ 8. 10. 124. 134.]
507 cord_individual_obj[indivial_i, :] = [ 9. 9. 139. 148.]
508 cord_individual_obj[indivial_i, :] = [ 10. 8. 130. 138.]
509 cord_individual_obj[indivial_i, :] = [ 11. 11. 126. 137.]
510 cord_individual_obj[indivial_i, :] = [ 12. 9. 112. 121.]
511 cord_individual_obj[indivial_i, :] = [ 13. 8. 95. 103.]
512 cord_individual_obj[indivial_i, :] = [ 14. 12. 192. 204.]
513 cord_individual_obj[indivial_i, :] = [ 15. 10. 108. 118.]
514 cord_individual_obj[indivial_i, :] = [ 16. 8. 181. 189.]
515 cord_individual_obj[indivial_i, :] = [ 17. 9. 115. 124.]
516 cord_individual_obj[indivial_i, :] = [ 18. 9. 130. 139.]
517 cord_individual_obj[indivial_i, :] = [ 19. 11. 100. 111.]
518 cord_individual_obj[indivial_i, :] = [ 20. 11. 117. 128.]
519 cord_individual_obj[indivial_i, :] = [ 21. 9. 74. 83.]
520 cord_individual_obj[indivial_i, :] = [ 22. 12. 111. 123.]
521 cord_individual_obj[indivial_i, :] = [ 23. 11. 112. 123.]
522 cord_individual_obj[indivial_i, :] = [ 24. 10. 132. 142.]
523
524 min(cord_individual_obj[:, 3]) = 83.0
525 histol_G_best_iter[iter, 3] = 83.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i, :] = [ 0. 10. 156. 166.]
530 cord_individual_obj[indivial_i, :] = [ 1. 9. 74. 83.]
531 cord_individual_obj[indivial_i, :] = [ 2. 10. 60. 70.]
532 cord_individual_obj[indivial_i, :] = [ 3. 10. 165. 175.]
533 cord_individual_obj[indivial_i, :] = [ 4. 11. 182. 193.]
534 cord_individual_obj[indivial_i, :] = [ 5. 11. 104. 115.]
535 cord_individual_obj[indivial_i, :] = [ 6. 9. 71. 80.]
536 cord_individual_obj[indivial_i, :] = [ 7. 9. 175. 184.]
537 cord_individual_obj[indivial_i, :] = [ 8. 11. 162. 173.]
538 cord_individual_obj[indivial_i, :] = [ 9. 8. 123. 131.]
539 cord_individual_obj[indivial_i, :] = [ 10. 11. 98. 109.]
540 cord_individual_obj[indivial_i, :] = [ 11. 11. 98. 109.]
541 cord_individual_obj[indivial_i, :] = [ 12. 11. 147. 158.]
542 cord_individual_obj[indivial_i, :] = [ 13. 11. 190. 201.]
543 cord_individual_obj[indivial_i, :] = [ 14. 11. 136. 147.]
544 cord_individual_obj[indivial_i, :] = [ 15. 10. 131. 141.]
545 cord_individual_obj[indivial_i, :] = [ 16. 10. 144. 154.]
546 cord_individual_obj[indivial_i, :] = [ 17. 11. 107. 118.]
547 cord_individual_obj[indivial_i, :] = [ 18. 9. 140. 149.]
548 cord_individual_obj[indivial_i, :] = [ 19. 9. 121. 130.]
549 cord_individual_obj[indivial_i, :] = [ 20. 10. 167. 177.]
550 cord_individual_obj[indivial_i, :] = [ 21. 10. 160. 170.]
551 cord_individual_obj[indivial_i, :] = [ 22. 11. 118. 129.]
552 cord_individual_obj[indivial_i, :] = [ 23. 10. 159. 169.]
553 cord_individual_obj[indivial_i, :] = [ 24. 12. 158. 170.]
554
555 min(cord_individual_obj[:, 3]) = 70.0
556 histol_G_best_iter[iter, 3] = 70.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i, :] = [ 0. 9. 136. 145.]
561 cord_individual_obj[indivial_i, :] = [ 1. 8. 108. 116.]
562 cord_individual_obj[indivial_i, :] = [ 2. 9. 159. 168.]
563 cord_individual_obj[indivial_i, :] = [ 3. 8. 152. 160.]
564 cord_individual_obj[indivial_i, :] = [ 4. 12. 104. 116.]
565 cord_individual_obj[indivial_i, :] = [ 5. 9. 136. 145.]
566 cord_individual_obj[indivial_i, :] = [ 6. 9. 167. 176.]
567 cord_individual_obj[indivial_i, :] = [ 7. 10. 143. 153.]
568 cord_individual_obj[indivial_i, :] = [ 8. 9. 147. 156.]
569 cord_individual_obj[indivial_i, :] = [ 9. 9. 102. 111.]
570 cord_individual_obj[indivial_i, :] = [ 10. 10. 125. 135.]
571 cord_individual_obj[indivial_i, :] = [ 11. 9. 118. 127.]
572 cord_individual_obj[indivial_i, :] = [ 12. 10. 136. 146.]
573 cord_individual_obj[indivial_i, :] = [ 13. 10. 60. 70.]
574 cord_individual_obj[indivial_i, :] = [ 14. 11. 114. 125.]
575 cord_individual_obj[indivial_i, :] = [ 15. 10. 219. 229.]
576 cord_individual_obj[indivial_i, :] = [ 16. 10. 93. 103.]
577 cord_individual_obj[indivial_i, :] = [ 17. 11. 122. 133.]
578 cord_individual_obj[indivial_i, :] = [ 18. 11. 108. 119.]
579 cord_individual_obj[indivial_i, :] = [ 19. 9. 143. 152.]
580 cord_individual_obj[indivial_i, :] = [ 20. 10. 78. 88.]
581 cord_individual_obj[indivial_i, :] = [ 21. 8. 167. 175.]
582 cord_individual_obj[indivial_i, :] = [ 22. 11. 138. 149.]
583 cord_individual_obj[indivial_i, :] = [ 23. 9. 196. 205.]

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584     cord_individual_obj[indivial_i, :] = [ 24. 11. 121. 132.]
585
586     min(cord_individual_obj[:, 3]) = 70.0
587     historl_G_best_iter[iter, 3] = 70.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0. 11. 185. 196.]
592     cord_individual_obj[indivial_i, :] = [ 1. 11. 191. 202.]
593     cord_individual_obj[indivial_i, :] = [ 2. 11. 179. 190.]
594     cord_individual_obj[indivial_i, :] = [ 3. 12. 145. 157.]
595     cord_individual_obj[indivial_i, :] = [ 4. 9. 136. 145.]
596     cord_individual_obj[indivial_i, :] = [ 5. 12. 206. 218.]
597     cord_individual_obj[indivial_i, :] = [ 6. 12. 135. 147.]
598     cord_individual_obj[indivial_i, :] = [ 7. 8. 112. 120.]
599     cord_individual_obj[indivial_i, :] = [ 8. 10. 218. 228.]
600     cord_individual_obj[indivial_i, :] = [ 9. 8. 108. 116.]
601     cord_individual_obj[indivial_i, :] = [ 10. 12. 184. 196.]
602     cord_individual_obj[indivial_i, :] = [ 11. 12. 171. 183.]
603     cord_individual_obj[indivial_i, :] = [ 12. 8. 142. 150.]
604     cord_individual_obj[indivial_i, :] = [ 13. 12. 123. 135.]
605     cord_individual_obj[indivial_i, :] = [ 14. 9. 136. 145.]
606     cord_individual_obj[indivial_i, :] = [ 15. 10. 60. 70.]
607     cord_individual_obj[indivial_i, :] = [ 16. 11. 167. 178.]
608     cord_individual_obj[indivial_i, :] = [ 17. 10. 90. 100.]
609     cord_individual_obj[indivial_i, :] = [ 18. 9. 99. 108.]
610     cord_individual_obj[indivial_i, :] = [ 19. 8. 146. 154.]
611     cord_individual_obj[indivial_i, :] = [ 20. 11. 122. 133.]
612     cord_individual_obj[indivial_i, :] = [ 21. 9. 119. 128.]
613     cord_individual_obj[indivial_i, :] = [ 22. 10. 112. 122.]
614     cord_individual_obj[indivial_i, :] = [ 23. 10. 160. 170.]
615     cord_individual_obj[indivial_i, :] = [ 24. 11. 111. 122.]
616
617     min(cord_individual_obj[:, 3]) = 70.0
618     historl_G_best_iter[iter, 3] = 70.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 10. 130. 140.]
623     cord_individual_obj[indivial_i, :] = [ 1. 8. 134. 142.]
624     cord_individual_obj[indivial_i, :] = [ 2. 11. 109. 120.]
625     cord_individual_obj[indivial_i, :] = [ 3. 9. 169. 178.]
626     cord_individual_obj[indivial_i, :] = [ 4. 12. 91. 103.]
627     cord_individual_obj[indivial_i, :] = [ 5. 9. 155. 164.]
628     cord_individual_obj[indivial_i, :] = [ 6. 9. 95. 104.]
629     cord_individual_obj[indivial_i, :] = [ 7. 9. 159. 168.]
630     cord_individual_obj[indivial_i, :] = [ 8. 10. 60. 70.]
631     cord_individual_obj[indivial_i, :] = [ 9. 9. 167. 176.]
632     cord_individual_obj[indivial_i, :] = [ 10. 10. 196. 206.]
633     cord_individual_obj[indivial_i, :] = [ 11. 9. 192. 201.]
634     cord_individual_obj[indivial_i, :] = [ 12. 9. 87. 96.]
635     cord_individual_obj[indivial_i, :] = [ 13. 9. 135. 144.]
636     cord_individual_obj[indivial_i, :] = [ 14. 10. 110. 120.]
637     cord_individual_obj[indivial_i, :] = [ 15. 10. 84. 94.]
638     cord_individual_obj[indivial_i, :] = [ 16. 11. 143. 154.]
639     cord_individual_obj[indivial_i, :] = [ 17. 10. 125. 135.]
640     cord_individual_obj[indivial_i, :] = [ 18. 10. 152. 162.]
641     cord_individual_obj[indivial_i, :] = [ 19. 11. 115. 126.]
642     cord_individual_obj[indivial_i, :] = [ 20. 12. 123. 135.]
643     cord_individual_obj[indivial_i, :] = [ 21. 11. 124. 135.]
644     cord_individual_obj[indivial_i, :] = [ 22. 10. 176. 186.]
645     cord_individual_obj[indivial_i, :] = [ 23. 9. 174. 183.]
646     cord_individual_obj[indivial_i, :] = [ 24. 10. 138. 148.]
647
648     min(cord_individual_obj[:, 3]) = 70.0
649     historl_G_best_iter[iter, 3] = 70.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 11. 184. 195.]
654     cord_individual_obj[indivial_i, :] = [ 1. 10. 172. 182.]
655     cord_individual_obj[indivial_i, :] = [ 2. 11. 122. 133.]
656     cord_individual_obj[indivial_i, :] = [ 3. 10. 120. 130.]
657     cord_individual_obj[indivial_i, :] = [ 4. 9. 81. 90.]
658     cord_individual_obj[indivial_i, :] = [ 5. 8. 194. 202.]
659     cord_individual_obj[indivial_i, :] = [ 6. 9. 132. 141.]
660     cord_individual_obj[indivial_i, :] = [ 7. 9. 148. 157.]
661     cord_individual_obj[indivial_i, :] = [ 8. 10. 110. 120.]
662     cord_individual_obj[indivial_i, :] = [ 9. 10. 103. 113.]
663     cord_individual_obj[indivial_i, :] = [ 10. 10. 60. 70.]
664     cord_individual_obj[indivial_i, :] = [ 11. 9. 178. 187.]
665     cord_individual_obj[indivial_i, :] = [ 12. 9. 186. 195.]
666     cord_individual_obj[indivial_i, :] = [ 13. 12. 121. 133.]
667     cord_individual_obj[indivial_i, :] = [ 14. 12. 112. 124.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 11. 163. 174.]
669 cord_individual_obj[indivial_i,:] = [16. 10. 82. 92.]
670 cord_individual_obj[indivial_i,:] = [ 17. 11. 95. 106.]
671 cord_individual_obj[indivial_i,:] = [18. 9. 82. 91.]
672 cord_individual_obj[indivial_i,:] = [19. 10. 88. 98.]
673 cord_individual_obj[indivial_i,:] = [ 20. 12. 123. 135.]
674 cord_individual_obj[indivial_i,:] = [21. 9. 145. 154.]
675 cord_individual_obj[indivial_i,:] = [22. 8. 81. 89.]
676 cord_individual_obj[indivial_i,:] = [ 23. 12. 88. 100.]
677 cord_individual_obj[indivial_i,:] = [ 24. 9. 193. 202.]
678
679 min(cord_individual_obj[:, 3]) = 70.0
680 historl_G_best_iter[iter, 3] = 70.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 212.0
689 Proportion_of_area = 0.1962962962962963
690 BEST_CHROM =
691 berth: [19. 2. 5. 24. 23. 13.5 14. 8. 22. 8. 13.5 3. 24.5 23.5
692 4. 17.5 1.5 7.5 8.5]
693 time: [7. 0. 5. 7. 3. 0. 4. 1. 0. 0. 6. 2. 4. 2. 7. 0. 5. 2. 5.]
694 num_QC: [2. 4. 4. 2. 6. 3. 4. 4. 3. 3. 2. 3. 3. 3. 2. 2. 3. 3. 3.]
695 Objective function values and some other indicators:
696 Obj0 = 10.00      Obj1 = 60.00      Obj0 + Obj1 = 70.00
697 Total movement of crane: 0.00
698 Total waiting time in berth position: 60.00
699 Total index of q during berthing: 1098.00
700 Specific arrangement for each vessel:
701 V_id: 0          li: 4.0           xi: 19.0           bow of i: 17.0           tail of i: 21.0           gama_i0: 7.0           gama_i1: 9
702 .0              gama_i1 + 1: 10.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 120.0           work
703 load_i: 120.0   work load gap_i: 0
704 V_id: 1          li: 4.0           xi: 2.0            bow of i: 0.0           tail of i: 4.0           gama_i0: 0.0           gama_i1: 1.0
705 .0              gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0           work load_i:
706 load_i: 120.0   work load gap_i: 0
707 V_id: 2          li: 4.0           xi: 5.0            bow of i: 3.0           tail of i: 7.0           gama_i0: 5.0           gama_i1: 6.0
708 .0              gama_i1 + 1: 7.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0           work load_i:
709 load_i: 160.0   work load gap_i: 0
710 V_id: 3          li: 6.0           xi: 24.0           bow of i: 21.0           tail of i: 27.0           gama_i0: 7.0           gama_i1: 7
711 .0              gama_i1 + 1: 11.0      gama_i1 - gama_i0: 3.0           duration_time_i: 4.0           demand_i: 140.0           work
712 load_i: 140.0   work load gap_i: 0
713 V_id: 4          li: 6.0           xi: 23.0           bow of i: 20.0           tail of i: 26.0           gama_i0: 3.0           gama_i1: 3
714 .0              gama_i1 + 1: 4.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
715 load_i: 60.0    work load gap_i: 0
716 V_id: 5          li: 3.0           xi: 13.5           bow of i: 12.0           tail of i: 15.0           gama_i0: 0.0           gama_i1: 0
717 .0              gama_i1 + 1: 1.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
718 load_i: 60.0    work load gap_i: 0
719 V_id: 6          li: 8.0           xi: 14.0           bow of i: 10.0           tail of i: 18.0           gama_i0: 4.0           gama_i1: 5
720 .0              gama_i1 + 1: 6.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0           work
721 load_i: 100.0   work load gap_i: 0
722 V_id: 7          li: 8.0           xi: 8.0            bow of i: 4.0           tail of i: 12.0           gama_i0: 1.0           gama_i1: 1
723 .0              gama_i1 + 1: 2.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 80.0           work load_i:
724 load_i: 80.0    work load gap_i: 0
725 V_id: 8          li: 4.0           xi: 22.0           bow of i: 20.0           tail of i: 24.0           gama_i0: 0.0           gama_i1: 1
726 .0              gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0           work
727 load_i: 80.0    work load gap_i: 0
728 V_id: 9          li: 8.0           xi: 8.0            bow of i: 4.0           tail of i: 12.0           gama_i0: 0.0           gama_i1: 0.0
729 .0              gama_i1 + 1: 1.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work load_i:
730 load_i: 60.0    work load gap_i: 0
731 V_id: 10         li: 7.0           xi: 13.5           bow of i: 10.0           tail of i: 17.0           gama_i0: 6.0           gama_i1: 1
732 .0              gama_i1 + 1: 10.0      gama_i1 - gama_i0: 3.0           duration_time_i: 4.0           demand_i: 140.0           work
733 load_i: 140.0   work load gap_i: 0
734 V_id: 11         li: 6.0           xi: 3.0            bow of i: 0.0           tail of i: 6.0           gama_i0: 2.0           gama_i1: 4.0
735 .0              gama_i1 + 1: 5.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0           work load_i:
736 load_i: 140.0   work load gap_i: 0
737 V_id: 12         li: 9.0           xi: 24.5           bow of i: 20.0           tail of i: 29.0           gama_i0: 4.0           gama_i1: 1
738 .0              gama_i1 + 1: 7.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0           work
739 load_i: 140.0   work load gap_i: 0
740 V_id: 13         li: 7.0           xi: 23.5           bow of i: 20.0           tail of i: 27.0           gama_i0: 2.0           gama_i1: 1
741 .0              gama_i1 + 1: 3.0       gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
742 load_i: 60.0    work load gap_i: 0
743 V_id: 14         li: 8.0           xi: 4.0            bow of i: 0.0           tail of i: 8.0           gama_i0: 7.0           gama_i1: 8.0
744 .0              gama_i1 + 1: 9.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 60.0           work load_i:
745 load_i: 60.0    work load gap_i: 0
746 V_id: 15         li: 5.0           xi: 17.5           bow of i: 15.0           tail of i: 20.0           gama_i0: 0.0           gama_i1: 1
747 .0              gama_i1 + 1: 4.0       gama_i1 - gama_i0: 3.0           duration_time_i: 4.0           demand_i: 160.0           work
748 load_i: 160.0   work load gap_i: 0
749 V_id: 16         li: 3.0           xi: 1.5            bow of i: 0.0           tail of i: 3.0           gama_i0: 5.0           gama_i1: 6.0
750 .0              gama_i1 + 1: 7.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0           work load_i:
751 load_i: 120.0   work load gap_i: 0

```

unknown

718	V_id: 17	li: 3.0	xi: 7.5	bow of i: 6.0	tail of i: 9.0	gama_i0: 2.0	gama_i1: 4.0
	160.0	gama_i1 + 1: 5.0	gama_i1 - gama_i0: 2.0		duration_time_i: 3.0	demand_i: 160.0	work load_i:
719	V_id: 18	li: 3.0	xi: 8.5	bow of i: 7.0	tail of i: 10.0	gama_i0: 5.0	gama_i1: 6
.0	load_i: 120.0	gama_i1 + 1: 7.0	gama_i1 - gama_i0: 1.0		duration_time_i: 2.0	demand_i: 120.0	work
720		work load gap_i: 0					
721	Algorithm finished and the total CPU time: 506 s						
722	End						
723							