The - very hard	
Tibbrary/Java/JavaVirtualHachines/jdkl.8.8_311.jdk/Contents/Home/bin/java -javaagent:/Users/huyang/Library/Application Support/JetBrains/Toolbox/ 6777.52/Intelli] IDEA.app/Contents/Inl/idea.rt.jar=52537;Users/huyang/Library/Application Support/JetBrains/Toolbox/apps/IDEA-U/th-0/213.6777.52/Intelli] IDEA.app/Contents/Inlents/Supplication Support/JetBrains/Toolbox/apps/IDEA-U/th-0/213.6777.52/Intelli] IDEA.app/Contents/Inlents/Supplication Support/JetBrains/Jet	/IntelliJ IDEA.app/ /JavaVirtualMachines/ ary/Java/ /ext/jaccess.jar:/ /Home/jre/lib/ext/ 0_311.jdk/Contents/Home/ achines/jdk1.8.0_311.jdk avVirtualMachines/jdk1.8. tualMachines/jdk1.8. tualMachines/jdk1.8. ava/JavaVirtualMachines/ /Java/ /target/classes:/Users/ oop-shaded-protobuf_3_7/ Library/Java/ 1.1/hadoop-shaded-guava- cess/1.0/failureaccess-1 avoid-conflict-with- bjc/j2objc-annotations/1 /Users/huyang/.m2/ 1.jar:/Users/huyang/.m2/ 13/httpcore-4.4.13.jar:/ ons-io-2.8.0.jar:/Users/ commons-collections-3.2. ion/jakarta.activation- 0629.jar:/Users/huyang/.io/9.4.43.v20210629/ uyang/.m2/repository/org 4.43.v20210629/jetty- rs/huyang/.m2/repository 1.jar:/Users/huyang/.m2 Users/huyang/.m2/ 19.jar:/Users/huyang/.m2 Users/huyang/.m2/ r-asl/1.9.2/jackson- rg/codehaus/jackson/ ository/commons-logging/ g/.m2/repository/commons- rg/codehaus/jackson/
mapper-asl-1.9.2.jar:/Users/huyang/.m2/repository/org/codehaus/jackson/jackson-jaxrs/1.9.2/jackson-jaxrs-1.9.2.jar:/Users/huyang/.m2/repository/ojackson-xc/1.9.2/jackson-xc-1.9.2.jar:/Users/huyang/.m2/repository/com/sun/jersey/jersey-server/1.19/jersey-server-1.19.jar:/Users/huyang/.m2/repository/com/sun/jersey/jersey-server/1.19/jersey-server-1.19.jar:/Users/huyang/.m2/repository/org/apache/commons-logging/1.1.3.jar:/Users/huyang/.m2/repository/org/apache/commons-beanutils/1.9.4.jar:/Users/huyang/.m2/repository/org/apache/commons-beanutils/1.9.4.jar:/Users/huyang/.m2/repository/org/apache/commons-lang3/3.12.0/commons-lang3-3.12.0.jar:/Users/huyang/.m2/repository/org/apache/commons commons-text-1.4.jar:/Users/huyang/.m2/repository/org/slfdj/slfdj-api/1.7.36/slfdj-api-1.7.36.jar:/Users/huyang/.m2/repository/org/slfdj/slfdj-rereloaddj-1.7.36.jar:/Users/huyang/.m2/repository/com/google/pache/avro/avro/1.7.7/avro-1.7.7.jar:/Users/huyang/.m2/repository/com/thoughtworks/paraname paranamer-2.3.jar:/Users/huyang/.m2/repository/com/google/re2j/re2j/1.1/re2j-1.1.jar:/Users/huyang/.m2/repository/com/google/protobuf/protobuf-ja.5.0.jar:/Users/huyang/.m2/repository/com/google/code/gson/gson/2.8.9/gson-2.8.9.jar:/Users/huyang/.m2/repository/apache/hadoop/hadoop-auth/3	rg/codehaus/jackson/ ository/commons-logging/ g/.m2/repository/commons ns-configuration2-2.1.1. /commons-text/1.4/ load4j/1.7.36/slf4j- r/paranamer/2.3/ va/2.5.0/protobuf-java-2 .3.3/hadoop-auth-3.3.3. ip/jcip-annotations/1.0- dev/accessors-smart/2.4. framework/4.2.0/curator- apache/kerby/kerb-client /org/apache/kerby/ /repository/org/apache/ m2/repository/org/apache
jcraft/jsch/0.1.55/jsch-0.1.55.jar:/Users/huyang/.m2/repository/org/apache/curator/client/4.2.0/curator-client-4.2.0.jar:/Users/huyang/.m2/repository/org/apache/curator-client/4.2.0/curator-client-4.2.0.jar:/Users/huyang/.m2/repository/com/google/code/findbugs/jsr305/3.0.2/jsr305-3.0.2.jar:/Users/huyang/.m2/repository/com/google/code/findbugs/jsr305/3.0.2/jsr305-3.0.2.jar:/Users/huyang/.m2/repository/org/apache/zookeeper/zookeeper/3.5.6/zookeeper-jute-3.5.6.jar:/Users/huyang/.m2/repository/org/apache/yetus/audience-annotations/0.5.0/audience-annotations-0.5.0.jar:/Users/huyang/.m2/repository/io/netty/netty-handler/4.1.	2/repository/org/apache/ s/huyang/.m2/repository/ 5.6.jar:/Users/huyang/.

```
1 .1.42.Final.jar:/Users/huvang/.m2/repository/io/netty/netty-common/4.1.42.Final/netty-common-4.1.42.Final.jar:/Users/huvang/.m2/repository/io/netty/netty-buffer/4.1.42.
  Final/netty-buffer-4.1.42.Final.jar:/Users/huyang/.m2/repository/io/netty-transport/4.1.42.Final/netty-transport-4.1.42.Final.jar:/Users/huyang/.m2/repository/io/
  netty/netty-resolver/4.1.42.Final/netty-resolver-4.1.42.Final.jar:/Users/huvang/.m2/repository/io/netty/netty-codec/4.1.42.Final/netty-codec-4.1.42.Final.jar:/Users/
  huvang/.m2/repository/io/netty/netty-transport-native-epoll/4.1.42.Final/netty-transport-native-epoll-4.1.42.Final.jar:/Users/huvang/.m2/repository/io/netty/netty-
  transport-native-unix-common/4.1.42.Final/netty-transport-native-unix-common-4.1.42.Final.jar:/Users/huvang/.m2/repository/org/slf4j/slf4j-log4j12/1.7.25/slf4j-log4j12-1
  .7.25.jar:/Users/huvang/.m2/repository/log4i/log4i/log4i/log4i/log4i-1.2.17.jar:/Users/huvang/.m2/repository/org/apache/commons-compress/1.21/commons-compress-1.21.
  iar:/Users/huvang/.m2/repository/org/apache/kerby/kerb-core/1.0.1/kerb-core-1.0.1.jar:/Users/huvang/.m2/repository/org/apache/kerby/kerb-core/1.0.1/kerb-core/1.0.1.jar
  :/Users/huvang/.m2/repository/org/apache/kerby/kerby-asn1/1.0.1/kerby-asn1/1.0.1.jar:/Users/huvang/.m2/repository/org/apache/kerby/kerby-util/1.0.1/kerby-util-1.0.1.jar
  :/Users/huyang/.m2/repository/com/fasterxml/jackson/core/jackson-databind/2.13.2.2/jackson-databind-2.13.2.2.jar:/Users/huyang/.m2/repository/com/fasterxml/jackson/core/
  iackson-annotations/2.13.2/jackson-annotations-2.13.2.jar:/Users/huvang/.m2/repository/com/fasterxml/jackson/core/jackson-core/2.13.2/jackson-core-2.13.2.jar:/Users/
  huvang/.m2/repository/org/codehaus/woodstox/stax2-api/4.2.1/stax2-api-4.2.1.jar:/Users/huvang/.m2/repository/com/fasterxml/woodstox/woodstox-core/5.3.0/woodstox-core-5.3
  .0.iar:/Users/huvang/.m2/repository/dnsjava/dnsjava/2.1.7/dnsjava-2.1.7.jar:/Users/huvang/.m2/repository/org/xerjal/snappy/snappy-java/1.1.8.2/snappy-java-1.1.8.2.jar:/
  Users/huyang/.m2/repository/org/apache/hadoop/hdfs/3.3.3/hadoop-hdfs-3.3.3.jar:/Users/huyang/.m2/repository/org/eclipse/jetty/jetty-util-ajax/9.4.43.v20210629/
  ietty-util-ajax-9.4.43.v20210629.jar:/Users/huvang/.m2/repository/commons-daemon/commons-daemon/1.0.13/commons-daemon-1.0.13.jar:/Users/huvang/.m2/repository/io/netty/
  netty/3.10.6.Final/netty-3.10.6.Final.jar:/Users/huyang/.m2/repository/io/netty/netty-all/4.1.68.Final/netty-all-4.1.68.Final.jar:/Users/huyang/.m2/repository/og/
  fusesource/leveldbini/leveldbini-all/1.8/leveldbini-all-1.8.jar:/Users/huvang/.m2/repository/org/apache/hadoop/hadoop-mapreduce-client-core/3.3.3/hadoop-mapreduce-client
  -core-3.3.3.jar:/Users/huvang/.m2/repository/org/apache/hadoop/hadoop-varn-client/3.3.3/hadoop-varn-client-3.3.3.jar:/Users/huvang/.m2/repository/org/eclipse/jetty/
  websocket/websocket-client/9.4.43.v20210629/websocket-client-9.4.43.v20210629/jetty-
  client-9.4.43.v20210629.iar:/Users/huvang/.m2/repository/org/eclipse/jetty/websocket/websocket-common/9.4.43.v20210629/websocket-common-9.4.43.v20210629.jar:/Users/
  huyang/.m2/repository/org/eclipse/jetty/websocket/websocket-api/9.4.43.v20210629/websocket-api-9.4.43.v20210629.jar:/Users/huyang/.m2/repository/org/apache/hadoop/hadoop
  -varn-api/3.3.3/hadoop-varn-api-3.3.3.iar:/Users/huvang/.m2/repository/org/iline/iline/3.9.0/iline-3.9.0.iar:/Users/huvang/.m2/repository/org/apache/hadoop/hadoop-varn-
  common/3.3.3/hadoop-varn-common-3.3.3.jar:/Users/huyang/.m2/repository/javax/xml/bind/jaxb-api/2.2.11/jaxb-api-2.2.11.jar:/Users/huyang/.m2/repository/com/sun/jersey/
  iersev-client/1.19/iersev-client-1.19.iar:/Users/huvang/.m2/repository/com/google/inject/guice/4.0/guice-4.0.jar:/Users/huvang/.m2/repository/javax/inject/javax.inject/1
  /iavax.inject-1.iar:/Users/huvang/.m2/repository/aopalliance/aopalliance/1.0/aopalliance-1.0.jar:/Users/huvang/.m2/repository/com/sun/jersey/contribs/jersey-guice/1.19/
  jersey-quice-1.19.jar:/Users/huyang/.m2/repository/com/fasterxml/jackson/module/jackson-module-jaxb-annotations/2.13.2/jackson-module-jaxb-annotations-2.13.2.jar:/Users/
  huvang/.m2/repository/jakarta/xml/bind/jakarta.xml.bind-api/2.3.3/jakarta.xml.bind-api-2.3.3.jar:/Users/huvang/.m2/repository/com/fasterxml/jackson/jaxrs/jackson-jaxrs-
  json-provider/2.13.2/jackson-jaxrs-json-provider-2.13.2.jar:/Users/huyanq/.m2/repository/com/fasterxml/jackson/jaxrs/jackson-jaxrs-base/2.13.2/jackson-jaxrs-base-2.13.2.
  iar:/Users/huvang/.m2/repository/org/apache/hadoop/hddoop-hdfs-client/3.3.3/hadoop-hdfs-client-3.3.3.iar:/Users/huvang/.m2/repository/com/sguareup/okhttp/okhttp/2.7.5/
  okhttp-2.7.5.jar:/Users/huyanq/.m2/repository/com/squareup/okio/0kio/1.6.0/okio-1.6.0.jar:/Users/huyanq/.m2/repository/javax/ws/rs-api/2.1.1/javax.ws.rs-api-
  2.1.1.jar:/Users/huvang/.m2/repository/com/google/inject/extensions/guice-servlet/4.0/guice-servlet-4.0.jar:/Users/huvang/.m2/repository/org/apache/hadoop/hadoop-
  mapreduce-client-jobclient/3.3.3/hadoop-mapreduce-client-jobclient-3.3.3.jar:/Users/huyang/.m2/repository/org/apache/hadoop/hadoop-mapreduce-client-common/3.3.3/hadoop-
  mapreduce-client-common-3.3.3.jar MyDriver 6 /Users/huyang/Desktop/Courses/大数据原理与技术/final_project/SimpleGeneticAlgorithm/test_input/very_hard.txt 1000 50
 2 SLF4J: Class path contains multiple SLF4J bindings.
 3 SLF4J: Found binding in [jar:file:/Users/huyang/.m2/repository/org/slf4j/slf4j-reload4j/1.7.36/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
 4 SLF4J: Found binding in [jar:file:/Users/huvang/.m2/repository/org/slf4j/slf4j-log4j12/1.7.25/slf4j-log4j12-1.7.25.jar!/org/slf4j/impl/StaticLoggerBinder.class]
 5 SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
 6 SLF4J: Actual binding is of type [org.slf4j.impl.Reload4jLoggerFactory]
 7 log4j:WARN No appenders could be found for logger (org.apache.hadoop.util.Shell).
 8 log4j:WARN Please initialize the log4j system properly.
9 log4i:WARN See http://logging.apache.org/log4i/1.2/fag.html#noconfig for more info.
10 [INFO] Program started.
11 [INFO] Number of Mappers: 6
12 [INFO] Number of Reducers: 6
13 [INFO] Convergence Threshold: 480
14 [WARNING] Existing files from temporary directory will be deleted: /Users/huyang/Hadoop_runtime/GeneticAlgoRuntimeTmp
15 [INFO] Generating initial population...
16 [INFO] Finished generating initial population!
17 [INFO] Running iteration 1...
18 -----
19 Iteration 1
20 -----
21 Population: 276865
22 Gene Length: 600
```

```
24 Best Fitness: 600519
25 Best Weight: 600231
26 Time Taken: 8372ms
28 [INFO] Running iteration 2...
29 -----
30 Iteration 2
31 -----
32 Population: 276865
33 Gene Length: 600
35 Best Fitness: 600573
36 Best Weight: 600286
37 Time Taken: 6230ms
39 [INFO] Running iteration 3...
40 -----
41 Iteration 3
42 -----
43 Population: 276865
44 Gene Length: 600
46 Best Fitness: 600733
47 Best Weight: 600435
48 Time Taken: 6243ms
50 [INFO] Running iteration 4...
51 -----
52 Iteration 4
53 -----
54 Population: 276865
55 Gene Length: 600
57 Best Fitness: 600811
58 Best Weight: 600259
59 Time Taken: 6233ms
61 [INFO] Running iteration 5...
62 -----
63 Iteration 5
64 -----
65 Population: 276865
66 Gene Length: 600
```

```
68 Best Fitness: 600869
69 Best Weight: 600159
70 Time Taken: 7278ms
72 [INFO] Running iteration 6...
73 -----
74 Iteration 6
75 -----
76 Population: 276865
77 Gene Length: 600
79 Best Fitness: 600870
80 Best Weight: 600450
81 Time Taken: 6243ms
82
83 [INFO] Running iteration 7...
84 -----
85 Iteration 7
86 -----
87 Population: 276865
88 Gene Length: 600
90 Best Fitness: 601096
91 Best Weight: 600722
92 Time Taken: 7238ms
94 [INFO] Running iteration 8...
95 -----
96 Iteration 8
97 -----
98 Population: 276865
99 Gene Length: 600
101 Best Fitness: 601250
102 Best Weight: 600602
103 Time Taken: 7266ms
104
105 [INFO] Running iteration 9...
106 -----
107 Iteration 9
108 ------
109 Population: 276865
110 Gene Length: 600
```

```
112 Best Fitness: 601449
113 Best Weight: 600613
114 Time Taken: 6227ms
115
116 [INFO] Running iteration 10...
117 -----
118 Iteration 10
119 ------
120 Population: 276865
121 Gene Length: 600
123 Best Fitness: 601712
124 Best Weight: 600593
125 Time Taken: 6222ms
126
127 [INFO] Running iteration 11...
128 -----
129 Iteration 11
130 -----
131 Population: 276865
132 Gene Length: 600
134 Best Fitness: 601916
135 Best Weight: 600808
136 Time Taken: 6278ms
137
138 [INFO] Running iteration 12...
139 -----
140 Iteration 12
141 ------
142 Population: 276865
143 Gene Length: 600
145 Best Fitness: 602183
146 Best Weight: 601195
147 Time Taken: 6218ms
148
149 [INFO] Running iteration 13...
150 ------
151 Iteration 13
152 -----
153 Population: 276865
```

```
154 Gene Length: 600
156 Best Fitness: 602454
157 Best Weight: 601705
158 Time Taken: 6214ms
150
160 [INFO] Running iteration 14...
161 ------
162 Iteration 14
163 ------
164 Population: 276865
165 Gene Length: 600
167 Best Fitness: 602742
168 Best Weight: 601030
169 Time Taken: 6234ms
170
171 [INFO] Running iteration 15...
172 -----
173 Iteration 15
174 ------
175 Population: 276865
176 Gene Length: 600
178 Best Fitness: 603179
179 Best Weight: 601853
180 Time Taken: 6209ms
181
182 [INFO] Running iteration 16...
183 -----
184 Iteration 16
185 ------
186 Population: 276865
187 Gene Length: 600
189 Best Fitness: 603538
190 Best Weight: 601559
191 Time Taken: 6215ms
192
193 [INFO] Running iteration 17...
194 -----
195 Iteration 17
```

```
197 Population: 276865
198 Gene Length: 600
200 Best Fitness: 603620
201 Best Weight: 602421
202 Time Taken: 6206ms
203
204 [INFO] Running iteration 18...
205 -----
206 Iteration 18
207 -----
208 Population: 276865
209 Gene Length: 600
211 Best Fitness: 604190
212 Best Weight: 602497
213 Time Taken: 6225ms
214
215 [INFO] Running iteration 19...
216 -----
217 Iteration 19
218 ------
219 Population: 276865
220 Gene Length: 600
222 Best Fitness: 604292
223 Best Weight: 601841
224 Time Taken: 6202ms
225
226 [INFO] Running iteration 20...
227 ------
228 Iteration 20
229 ------
230 Population: 276865
231 Gene Length: 600
233 Best Fitness: 604548
234 Best Weight: 602550
235 Time Taken: 6220ms
236
237 [INFO] Running iteration 21...
```

```
239 Iteration 21
240 -----
241 Population: 276865
242 Gene Length: 600
244 Best Fitness: 605588
245 Best Weight: 602353
246 Time Taken: 6208ms
247
248 [INFO] Running iteration 22...
249 -----
250 Iteration 22
251 -----
252 Population: 276865
253 Gene Length: 600
255 Rest Fitness: 605588
256 Best Weight: 602353
257 Time Taken: 6209ms
258
259 [INFO] Running iteration 23...
260 ------
261 Iteration 23
262 -----
263 Population: 276865
264 Gene Length: 600
266 Best Fitness: 605772
267 Best Weight: 602883
268 Time Taken: 7228ms
269
270 [INFO] Running iteration 24...
271 ------
272 Iteration 24
273 ------
274 Population: 276865
275 Gene Length: 600
277 Best Fitness: 606042
278 Best Weight: 603401
279 Time Taken: 6211ms
```

```
281 [INFO] Running iteration 25...
282 -----
283 Iteration 25
284 ------
285 Population: 276865
286 Gene Length: 600
288 Best Fitness: 606651
289 Best Weight: 602896
290 Time Taken: 6219ms
291
292 [INFO] Running iteration 26...
293 -----
294 Iteration 26
295 ------
296 Population: 276865
297 Gene Length: 600
299 Best Fitness: 606914
300 Best Weight: 603788
301 Time Taken: 6212ms
302
303 [INFO] Running iteration 27...
304 -----
305 Iteration 27
306 -----
307 Population: 276865
308 Gene Length: 600
310 Best Fitness: 607405
311 Best Weight: 604090
312 Time Taken: 6207ms
313
314 [INFO] Running iteration 28 ...
315 -----
316 Iteration 28
317 -----
318 Population: 276865
319 Gene Length: 600
321 Best Fitness: 607658
```

```
322 Best Weight: 604840
323 Time Taken: 6221ms
324
325 [INFO] Running iteration 29...
326 -----
327 Iteration 29
328 ------
329 Population: 276865
330 Gene Length: 600
332 Best Fitness: 608309
333 Best Weight: 605381
334 Time Taken: 6216ms
335
336 [INFO] Running iteration 30...
337 ------
338 Iteration 30
339 -----
340 Population: 276865
341 Gene Length: 600
343 Best Fitness: 608309
344 Best Weight: 605381
345 Time Taken: 6210ms
346
347 [INFO] Running iteration 31...
348 -----
349 Iteration 31
350 ------
351 Population: 276865
352 Gene Length: 600
354 Best Fitness: 608748
355 Best Weight: 604976
356 Time Taken: 6227ms
357
358 [INFO] Running iteration 32...
359 -----
360 Iteration 32
361 -----
362 Population: 276865
363 Gene Length: 600
```

```
366 Best Weight: 604623
367 Time Taken: 6219ms
368
369 [INFO] Running iteration 33...
370 -----
371 Iteration 33
372 -----
373 Population: 276865
374 Gene Length: 600
376 Best Fitness: 609336
377 Best Weight: 605588
378 Time Taken: 8223ms
379
380 [INFO] Running iteration 34...
381 -----
382 Iteration 34
383 -----
384 Population: 276865
385 Gene Length: 600
387 Best Fitness: 609849
388 Best Weight: 605288
389 Time Taken: 8438ms
390
391 [INFO] Running iteration 35...
392 -----
393 Iteration 35
394 -----
395 Population: 276865
396 Gene Length: 600
398 Best Fitness: 610444
399 Best Weight: 605649
400 Time Taken: 7365ms
401
402 [INFO] Running iteration 36 ...
403 -----
404 Iteration 36
405 -----
406 Population: 276865
407 Gene Length: 600
```

```
409 Best Fitness: 610444
410 Best Weight: 605649
411 Time Taken: 6215ms
412
413 [INFO] Running iteration 37...
414 -----
415 Iteration 37
416 -----
417 Population: 276865
418 Gene Length: 600
420 Best Fitness: 610821
421 Best Weight: 606158
422 Time Taken: 7215ms
423
424 [INFO] Running iteration 38...
425 -----
426 Iteration 38
427 -----
428 Population: 276865
429 Gene Length: 600
431 Best Fitness: 610968
432 Best Weight: 606423
433 Time Taken: 8212ms
434
435 [INFO] Running iteration 39...
436 -----
437 Iteration 39
438 -----
439 Population: 276865
440 Gene Length: 600
442 Best Fitness: 611704
443 Best Weight: 606777
444 Time Taken: 7293ms
445
446 [INFO] Running iteration 40 ...
447 -----
448 Iteration 40
449 -----
450 Population: 276865
451 Gene Length: 600
```

```
453 Best Fitness: 611704
454 Best Weight: 606777
455 Time Taken: 6214ms
456
457 [INFO] Running iteration 41...
458 -----
459 Iteration 41
460 -----
461 Population: 276865
462 Gene Length: 600
464 Best Fitness: 611994
465 Best Weight: 607387
466 Time Taken: 6218ms
467
468 [INFO] Running iteration 42...
469 -----
470 Iteration 42
471 -----
472 Population: 276865
473 Gene Length: 600
475 Best Fitness: 612514
476 Best Weight: 607008
477 Time Taken: 6211ms
478
479 [INFO] Running iteration 43...
480 -----
481 Iteration 43
482 -----
483 Population: 276865
484 Gene Length: 600
486 Best Fitness: 612708
487 Best Weight: 607745
488 Time Taken: 9212ms
489
490 [INFO] Running iteration 44...
491 -----
492 Iteration 44
493 -----
```

```
494 Ponulation: 276865
495 Gene Length: 600
497 Best Fitness: 612754
498 Best Weight: 607738
499 Time Taken: 7260ms
500
501 [INFO] Running iteration 45...
502 -----
503 Iteration 45
504 -----
505 Population: 276865
506 Gene Length: 600
508 Best Fitness: 613024
509 Best Weight: 607708
510 Time Taken: 6239ms
511
512 [INFO] Running iteration 46...
513 -----
514 Iteration 46
515 ------
516 Population: 276865
517 Gene Length: 600
519 Best Fitness: 613431
520 Best Weight: 607903
521 Time Taken: 6208ms
522
523 [INFO] Running iteration 47...
524 -----
525 Iteration 47
526 -----
527 Population: 276865
528 Gene Length: 600
530 Best Fitness: 613814
531 Best Weight: 608538
532 Time Taken: 7217ms
533
534 [INFO] Running iteration 48...
535 -----
```

```
536 Iteration 48
538 Population: 276865
539 Gene Length: 600
541 Best Fitness: 613982
542 Best Weight: 608442
543 Time Taken: 7205ms
544
545 [INFO] Running iteration 49...
546 -----
547 Iteration 49
548 -----
549 Population: 276865
550 Gene Length: 600
552 Best Fitness: 614243
553 Best Weight: 608705
554 Time Taken: 6212ms
555
556 [INFO] Running iteration 50...
557 ------
558 Iteration 50
559 ------
560 Population: 276865
561 Gene Length: 600
563 Best Fitness: 614243
564 Best Weight: 608705
565 Time Taken: 7211ms
566
567 [INFO] Running iteration 51...
568 ------
569 Iteration 51
570 ------
571 Population: 276865
572 Gene Length: 600
574 Best Fitness: 614708
575 Best Weight: 608929
576 Time Taken: 6241ms
577
```

```
578 [INFO] Running iteration 52...
580 Iteration 52
581 -----
582 Population: 276865
583 Gene Length: 600
585 Rest Fitness: 614967
586 Best Weight: 608857
587 Time Taken: 6223ms
588
589 [INFO] Running iteration 53...
590 -----
591 Iteration 53
592 -----
593 Population: 276865
594 Gene Length: 600
596 Best Fitness: 614973
597 Best Weight: 609085
598 Time Taken: 6211ms
599
600 [INFO] Running iteration 54...
601 -----
602 Iteration 54
603 -----
604 Population: 276865
605 Gene Length: 600
607 Best Fitness: 615207
608 Best Weight: 609099
609 Time Taken: 6202ms
610
611 [INFO] Running iteration 55 ...
612 ------
613 Iteration 55
614 ------
615 Population: 276865
616 Gene Length: 600
618 Best Fitness: 615359
619 Best Weight: 609644
```

```
620 Time Taken: 6194ms
621
622 [INFO] Running iteration 56...
623 -----
624 Iteration 56
625 -----
626 Population: 276865
627 Gene Length: 600
629 Rest Fitness: 615572
630 Best Weight: 609375
631 Time Taken: 6206ms
632
633 [INFO] Running iteration 57...
634 -----
635 Iteration 57
636 -----
637 Population: 276865
638 Gene Length: 600
640 Best Fitness: 615618
641 Best Weight: 609207
642 Time Taken: 7239ms
643
644 [INFO] Running iteration 58...
645 -----
646 Iteration 58
647 ------
648 Population: 276865
649 Gene Length: 600
651 Best Fitness: 615766
652 Best Weight: 609210
653 Time Taken: 8259ms
654
655 [INFO] Running iteration 59...
656 -----
657 Iteration 59
658 ------
659 Population: 276865
660 Gene Length: 600
```

```
662 Rest Fitness: 615961
663 Best Weight: 609695
664 Time Taken: 7225ms
665
666 [INFO] Running iteration 60...
667 -----
668 Iteration 60
669 ------
670 Population: 276865
671 Gene Length: 600
673 Best Fitness: 616061
674 Best Weight: 609724
675 Time Taken: 8314ms
676
677 [INFO] Running iteration 61...
678 -----
679 Iteration 61
680 -----
681 Population: 276865
682 Gene Length: 600
684 Best Fitness: 616204
685 Best Weight: 609952
686 Time Taken: 7317ms
687
688 [INFO] Running iteration 62...
689 -----
690 Iteration 62
691 -----
692 Population: 276865
693 Gene Length: 600
695 Best Fitness: 616424
696 Best Weight: 610186
697 Time Taken: 7264ms
698
699 [INFO] Running iteration 63...
700 -----
701 Iteration 63
702 ------
703 Population: 276865
704 Gene Length: 600
```

```
706 Best Fitness: 616424
707 Best Weight: 610186
708 Time Taken: 8225ms
709
710 [INFO] Running iteration 64...
711 ------
712 Iteration 64
713 ------
714 Population: 276865
715 Gene Length: 600
717 Best Fitness: 616511
718 Best Weight: 610271
719 Time Taken: 8224ms
720
721 [INFO] Running iteration 65...
722 -----
723 Iteration 65
724 ------
725 Population: 276865
726 Gene Length: 600
728 Best Fitness: 616647
729 Best Weight: 610489
730 Time Taken: 7222ms
731
732 [INFO] Running iteration 66...
733 -----
734 Iteration 66
735 -----
736 Population: 276865
737 Gene Length: 600
739 Best Fitness: 616689
740 Best Weight: 610211
741 Time Taken: 7213ms
742
743 [INFO] Running iteration 67...
744 -----
745 Iteration 67
746 ------
747 Population: 276865
748 Gene Length: 600
```

```
750 Best Fitness: 616760
751 Best Weight: 610481
752 Time Taken: 7240ms
754 [INFO] Running iteration 68...
755 -----
756 Iteration 68
757 ------
758 Population: 276865
759 Gene Length: 600
761 Best Fitness: 616990
762 Best Weight: 610769
763 Time Taken: 7217ms
764
765 [INFO] Running iteration 69...
766 -----
767 Iteration 69
768 ------
769 Population: 276865
770 Gene Length: 600
772 Best Fitness: 617052
773 Best Weight: 610818
774 Time Taken: 7209ms
775
776 [INFO] Running iteration 70...
777 -----
778 Iteration 70
779 ------
780 Population: 276865
781 Gene Length: 600
783 Best Fitness: 617071
784 Best Weight: 610856
785 Time Taken: 7348ms
786
787 [INFO] Running iteration 71...
788 ------
789 Iteration 71
790 ------
791 Population: 276865
```

```
792 Gene Length: 600
794 Best Fitness: 617121
795 Best Weight: 611009
796 Time Taken: 7215ms
797
798 [INFO] Running iteration 72...
799 -----
800 Iteration 72
801 ------
802 Population: 276865
803 Gene Length: 600
805 Best Fitness: 617201
806 Best Weight: 611125
807 Time Taken: 7217ms
808
809 [INFO] Running iteration 73...
810 -----
811 Iteration 73
812 -----
813 Population: 276865
814 Gene Length: 600
816 Best Fitness: 617316
817 Best Weight: 611315
818 Time Taken: 7214ms
819
820 [INFO] Running iteration 74...
821 -----
822 Iteration 74
823 -----
824 Population: 276865
825 Gene Length: 600
827 Best Fitness: 617454
828 Best Weight: 611374
829 Time Taken: 7217ms
830
831 [INFO] Running iteration 75...
832 -----
833 Iteration 75
```

```
835 Population: 276865
836 Gene Length: 600
838 Best Fitness: 617454
839 Best Weight: 611374
840 Time Taken: 7221ms
841
842 [INFO] Running iteration 76...
843 -----
844 Iteration 76
845 -----
846 Population: 276865
847 Gene Length: 600
849 Rest Fitness: 617540
850 Best Weight: 611750
851 Time Taken: 7209ms
852
853 [INFO] Running iteration 77...
854 -----
855 Iteration 77
856 ------
857 Population: 276865
858 Gene Length: 600
860 Best Fitness: 617562
861 Best Weight: 611798
862 Time Taken: 7216ms
863
864 [INFO] Running iteration 78...
865 ------
866 Iteration 78
867 ------
868 Population: 276865
869 Gene Length: 600
871 Best Fitness: 617662
872 Best Weight: 611886
873 Time Taken: 7202ms
874
875 [INFO] Running iteration 79 ...
```

```
877 Iteration 79
878 ------
879 Population: 276865
880 Gene Length: 600
882 Best Fitness: 617684
883 Best Weight: 611934
884 Time Taken: 7214ms
885
886 [INFO] Running iteration 80...
887 -----
888 Iteration 80
889 -----
890 Population: 276865
891 Gene Length: 600
893 Rest Fitness: 617744
894 Best Weight: 612148
895 Time Taken: 7224ms
896
897 [INFO] Running iteration 81...
898 -----
899 Iteration 81
900 -----
901 Population: 276865
902 Gene Length: 600
904 Best Fitness: 617791
905 Best Weight: 611975
906 Time Taken: 7206ms
907
908 [INFO] Running iteration 82...
909 -----
910 Iteration 82
911 -----
912 Population: 276865
913 Gene Length: 600
915 Best Fitness: 617837
916 Best Weight: 612269
917 Time Taken: 9306ms
```

```
919 [INFO] Running iteration 83...
92A -----
921 Iteration 83
922 ------
923 Population: 276865
924 Gene Length: 600
926 Best Fitness: 617875
927 Best Weight: 612174
928 Time Taken: 7214ms
929
930 [INFO] Running iteration 84...
931 -----
932 Iteration 84
933 -----
934 Population: 276865
935 Gene Length: 600
937 Best Fitness: 617944
938 Best Weight: 612310
939 Time Taken: 7207ms
940
941 [INFO] Running iteration 85...
942 -----
943 Iteration 85
944 -----
945 Population: 276865
946 Gene Length: 600
948 Best Fitness: 617944
949 Best Weight: 612310
950 Time Taken: 7214ms
951
952 [INFO] Running iteration 86 ...
953 -----
954 Iteration 86
955 -----
956 Population: 276865
957 Gene Length: 600
959 Best Fitness: 617987
```

```
960 Best Weight: 612407
961 Time Taken: 7211ms
963 [INFO] Running iteration 87...
964 -----
965 Iteration 87
966 -----
967 Population: 276865
968 Gene Length: 600
970 Best Fitness: 618050
971 Best Weight: 612557
972 Time Taken: 7214ms
973
974 [INFO] Running iteration 88...
975 -----
976 Iteration 88
977 ------
978 Population: 276865
979 Gene Length: 600
981 Best Fitness: 618141
982 Best Weight: 612808
983 Time Taken: 7213ms
984
985 [INFO] Running iteration 89...
987 Process finished with exit code 255
988
```