```
 1 "C:\Program Files\Java\jdk-11.0.1\bin\java.exe" -ea -Didea.
   test.cyclic.buffer.size=1048576 "-javaagent:C:\Program
   Files\JetBrains\IntelliJ IDEA 2018.2.2\lib\idea_rt.jar=3901
   :C:\Program Files\JetBrains\IntelliJ IDEA 2018.2.2\bin" -
   Dfile.encoding=UTF-8 -classpath "C:\Program Files\JetBrains
   \IntelliJ IDEA 2018.2.2\lib\idea_rt.jar;C:\Program Files\
   JetBrains\IntelliJ IDEA 2018.2.2\plugins\junit\lib\junit-rt
   .jar;C:\Program Files\JetBrains\IntelliJ IDEA 2018.2.2\
   plugins\junit\lib\junit5-rt.jar;C:\Users\Eigenaar\.m2\
   repository\org\junit\platform\junit-platform-launcher\1.4.2
   \junit-platform-launcher-1.4.2.jar;C:\Users\Eigenaar\.m2\
   repository\org\apiguardian\apiguardian-api\1.0.0\
   apiguardian-api-1.0.0.jar;C:\Users\Eigenaar\.m2\repository\
   org\junit\platform\junit-platform-engine\1.4.2\junit-
   platform-engine-1.4.2.jar;C:\Users\Eigenaar\.m2\repository\
   org\opentest4j\opentest4j\1.1.1\opentest4j-1.1.1.jar;C:\
   Users\Eigenaar\.m2\repository\org\junit\platform\junit-
   platform-commons\1.4.2\junit-platform-commons-1.4.2.jar;C:\
   Users\Eigenaar\IdeaProjects\Algorithmes-and-Datastructures\
   Archery\target\test-classes;C:\Users\Eigenaar\IdeaProjects\
   Algorithmes-and-Datastructures\Archery\target\classes;C:\
   Users\Eigenaar\.m2\repository\org\junit\jupiter\junit-
   jupiter\5.4.2\junit-jupiter-5.4.2.jar;C:\Users\Eigenaar\.m2
   \repository\org\junit\jupiter\junit-jupiter-api\5.4.2\junit
   -jupiter-api-5.4.2.jar;C:\Users\Eigenaar\.m2\repository\org
   \junit\jupiter\junit-jupiter-params\5.4.2\junit-jupiter-
   params-5.4.2.jar;C:\Users\Eigenaar\.m2\repository\org\junit
   \jupiter\junit-jupiter-engine\5.4.2\junit-jupiter-engine-5.
   4.2.jar" com.intellij.rt.execution.junit.JUnitStarter -
   ideVersion5 -junit5 nl.hva.ict.se.ads.
   ExtendedChampionSelectorTest,testEfficiencyAlgorithms
 2
 3 Selection sort:
 4 endTime Selection: 0
 5 number of archers Selection: 100
 6
 7 Quick sort:
 8 endTime Quick: 0
 9 number of archers Quick: 100
10
11 Collection sort:
12 endTime Collection: 0
13 number of archers Collection: 100
14
15 Selection sort:
16 endTime Selection: 16
```

```
17 number of archers Selection: 200
18
19 Quick sort:
20 endTime Quick: 0
21 number of archers Quick: 200
22
23 Collection sort:
24 endTime Collection: 0
25 number of archers Collection: 200
26
27 Selection sort:
28 endTime Selection: 0
29 number of archers Selection: 400
30
31 Quick sort:
32 endTime Quick: 0
33 number of archers Quick: 400
34
35 Collection sort:
36 endTime Collection: 0
37 number of archers Collection: 400
38
39 Selection sort:
40 endTime Selection: 16
41 number of archers Selection: 800
42
43 Quick sort:
44 endTime Quick: 0
45 number of archers Quick: 800
46
47 Collection sort:
48 endTime Collection: 0
49 number of archers Collection: 800
50
51 Selection sort:
52 endTime Selection: 22
53 number of archers Selection: 1600
54
55 Quick sort:
56 endTime Quick: 0
57 number of archers Quick: 1600
58
59 Collection sort:
60 endTime Collection: 0
61 number of archers Collection: 1600
62
```

```
 63 Selection sort:
 64 endTime Selection: 16
 65 number of archers Selection: 3200
 66
 67 Quick sort:
 68 endTime Quick: 0
 69 number of archers Quick: 3200
 70
 71 Collection sort:
 72 endTime Collection: 16
 73 number of archers Collection: 3200
 74
 75 Selection sort:
 76 endTime Selection: 84
 77 number of archers Selection: 6400
 78
 79 Quick sort:
 80 endTime Quick: 16
 81 number of archers Quick: 6400
 82
 83 Collection sort:
 84 endTime Collection: 0
 85 number of archers Collection: 6400
 86
 87 Selection sort:
 88 endTime Selection: 282
 89 number of archers Selection: 12800
 90
 91 Quick sort:
 92 endTime Quick: 30
 93 number of archers Quick: 12800
 94
 95 Collection sort:
 96 endTime Collection: 0
 97 number of archers Collection: 12800
 98
 99 Selection sort:
100 endTime Selection: 1183
101 number of archers Selection: 25600
102
103 Quick sort:
104 endTime Quick: 64
105 number of archers Quick: 25600
106
107 Collection sort:
108 endTime Collection: 10
```

```
109 number of archers Collection: 25600
110
111 Selection sort:
112 endTime Selection: 5289
113 number of archers Selection: 51200
114
115 Quick sort:
116 endTime Quick: 264
117 number of archers Quick: 51200
118
119 Collection sort:
120 endTime Collection: 10
121 number of archers Collection: 51200
122
123 Selection sort:
124 endTime Selection: 46362
125 number of archers Selection: 102400
126 Selection sort is finished within 20 seconds, last number
    of archers: 102400
127
128 Quick sort:
129 endTime Quick: 1052
130 number of archers Quick: 102400
131
132 Collection sort:
133 endTime Collection: 30
134 number of archers Collection: 102400
135
136 Quick sort:
137 endTime Quick: 4139
138 number of archers Quick: 204800
139
140 Collection sort:
141 endTime Collection: 59
142 number of archers Collection: 204800
143
144 Quick sort:
145 endTime Quick: 16649
146 number of archers Quick: 409600
147
148 Collection sort:
149 endTime Collection: 91
150 number of archers Collection: 409600
151
152 Quick sort:
153 endTime Quick: 71416
```

```
154 number of archers Quick: 819200
155 Quick sort is finished within 20 seconds, last number of
    archers: 819200
156
157 Collection sort:
158 endTime Collection: 193
159 number of archers Collection: 819200
160
161 Collection sort:
162 endTime Collection: 624
163 number of archers Collection: 1638400
164
165 Collection sort:
166 endTime Collection: 672
167 number of archers Collection: 3276800
168
169 Collection sort:
170 endTime Collection: 1547
171 number of archers Collection: 6553600
172 Collection sort is finished, last number of archers:
    6553600
173
174
175
176 Process finished with exit code 0
177
```