

```

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=4085
  :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.JUnit4TestRunner -
  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: 0

```

```
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: 16
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: 0
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: 31
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: 31
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: 0
73 number of archers Collection: 3200
74
75 Selection sort:
76 endTime Selection: 69
77 number of archers Selection: 6400
78
79 Quick sort:
80 endTime Quick: 0
81 number of archers Quick: 6400
82
83 Collection sort:
84 endTime Collection: 15
85 number of archers Collection: 6400
86
87 Selection sort:
88 endTime Selection: 306
89 number of archers Selection: 12800
90
91 Quick sort:
92 endTime Quick: 31
93 number of archers Quick: 12800
94
95 Collection sort:
96 endTime Collection: 15
97 number of archers Collection: 12800
98
99 Selection sort:
100 endTime Selection: 1867
101 number of archers Selection: 25600
102
103 Quick sort:
104 endTime Quick: 85
105 number of archers Quick: 25600
106
107 Collection sort:
108 endTime Collection: 16
```

```
109 number of archers Collection: 25600
110
111 Selection sort:
112 endTime Selection: 7255
113 number of archers Selection: 51200
114
115 Quick sort:
116 endTime Quick: 367
117 number of archers Quick: 51200
118
119 Collection sort:
120 endTime Collection: 15
121 number of archers Collection: 51200
122
123 Selection sort:
124 endTime Selection: 50046
125 number of archers Selection: 102400
126 Selection sort is finished, last number of archers: 102400
127
128 Quick sort:
129 endTime Quick: 1273
130 number of archers Quick: 102400
131
132 Collection sort:
133 endTime Collection: 28
134 number of archers Collection: 102400
135
136 Quick sort:
137 endTime Quick: 5112
138 number of archers Quick: 204800
139
140 Collection sort:
141 endTime Collection: 73
142 number of archers Collection: 204800
143
144 Quick sort:
145 endTime Quick: 27177
146 number of archers Quick: 409600
147 Quick sort is finished, last number of archers: 409600
148
149 Collection sort:
150 endTime Collection: 113
151 number of archers Collection: 409600
152
153 Collection sort:
154 endTime Collection: 184
```

```
155 number of archers Collection: 819200
156
157 Collection sort:
158 endTime Collection: 341
159 number of archers Collection: 1638400
160
161 Collection sort:
162 endTime Collection: 670
163 number of archers Collection: 3276800
164
165 Collection sort:
166 endTime Collection: 1612
167 number of archers Collection: 6553600
168 Collection sort is finished, last number of archers:
    6553600
169
170
171
172 Process finished with exit code 0
173
```