

```

1 /Users/Aashay/Library/Java/JavaVirtualMachines/
  openjdk-19.0.2/Contents/Home/bin/java -javaagent:/
  Applications/IntelliJ IDEA CE.app/Contents/lib/
  idea_rt.jar=54072:/Applications/IntelliJ IDEA CE.
  app/Contents/bin -Dfile.encoding=UTF-8 -Dsun.stdout
  .encoding=UTF-8 -Dsun.stderr.encoding=UTF-8 -
  classpath /Users/Aashay/Desktop/Spring2023/PSA/
  INF06205/target/classes:/Users/Aashay/.m2/
  repository/com/phasmidsoftware/args_2.13/1.0.3/
  args_2.13-1.0.3.jar:/Users/Aashay/.m2/repository/
  org/scala-lang/scala-library/2.13.7/scala-library-2
  .13.7.jar:/Users/Aashay/.m2/repository/org/scala-
  lang/modules/scala-parser-combinators_2.13/1.1.2/
  scala-parser-combinators_2.13-1.1.2.jar:/Users/
  Aashay/.m2/repository/org/apache/logging/log4j/
  log4j-api/2.19.0/log4j-api-2.19.0.jar:/Users/Aashay
  /.m2/repository/log4j/log4j/1.2.17/log4j-1.2.17.jar
  :/Users/Aashay/.m2/repository/com/google/guava/
  guava/31.1-jre/guava-31.1-jre.jar:/Users/Aashay/.m2
  /repository/com/google/guava/failureaccess/1.0.1/
  failureaccess-1.0.1.jar:/Users/Aashay/.m2/
  repository/com/google/guava/listenablefuture/9999.0
  -empty-to-avoid-conflict-with-guava/
  listenablefuture-9999.0-empty-to-avoid-conflict-
  with-guava.jar:/Users/Aashay/.m2/repository/com/
  google/code/findbugs/jsr305/3.0.2/jsr305-3.0.2.jar
  :/Users/Aashay/.m2/repository/org/checkerframework/
  checker-qual/3.12.0/checker-qual-3.12.0.jar:/Users/
  Aashay/.m2/repository/com/google/errorprone/
  error_prone_annotations/2.11.0/
  error_prone_annotations-2.11.0.jar:/Users/Aashay/.
  m2/repository/com/google/j2objc/j2objc-annotations/
  1.3/j2objc-annotations-1.3.jar:/Users/Aashay/.m2/
  repository/org/ini4j/ini4j/0.5.4/ini4j-0.5.4.jar
  edu.neu.coe.info6205.sort.par.Main

```

2 Degree of parallelism: 7

3 Number of threads4

4 cutoff: 40000 10times Time:1690ms

5 cutoff: 60000 10times Time:1206ms

6 cutoff: 80000 10times Time:1158ms

7 cutoff: 100000 10times Time:1157ms

8	cutoff: 120000	10times	Time:1174ms
9	cutoff: 140000	10times	Time:1164ms
10	cutoff: 160000	10times	Time:1168ms
11	cutoff: 180000	10times	Time:1145ms
12	cutoff: 200000	10times	Time:1153ms
13	cutoff: 220000	10times	Time:1145ms
14	cutoff: 240000	10times	Time:1148ms
15	cutoff: 260000	10times	Time:1276ms
16	cutoff: 280000	10times	Time:1429ms
17	cutoff: 300000	10times	Time:1435ms
18	cutoff: 320000	10times	Time:1303ms
19	cutoff: 340000	10times	Time:1214ms
20	cutoff: 360000	10times	Time:1228ms
21	cutoff: 380000	10times	Time:1217ms
22	cutoff: 400000	10times	Time:1202ms
23	cutoff: 420000	10times	Time:1199ms
24	cutoff: 440000	10times	Time:1250ms
25	cutoff: 460000	10times	Time:1196ms
26	cutoff: 480000	10times	Time:1201ms
27	cutoff: 500000	10times	Time:1199ms
28	cutoff: 520000	10times	Time:1229ms
29	cutoff: 540000	10times	Time:1333ms
30	cutoff: 560000	10times	Time:1300ms
31	cutoff: 580000	10times	Time:1311ms
32	cutoff: 600000	10times	Time:1345ms
33	cutoff: 620000	10times	Time:1429ms
34	cutoff: 640000	10times	Time:1376ms
35	cutoff: 660000	10times	Time:1277ms
36	cutoff: 680000	10times	Time:1274ms
37	cutoff: 700000	10times	Time:1344ms
38	cutoff: 720000	10times	Time:1383ms
39			
40	Process finished with exit code 0		
41			