

```

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=54304:/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 threads8

4 cutoff: 30000                      10times Time:1304ms

5 cutoff: 45000                      10times Time:1044ms

6 cutoff: 60000                      10times Time:853ms

7 cutoff: 75000                      10times Time:828ms

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8 cutoff: 90000      10times Time:819ms
9 cutoff: 105000     10times Time:806ms
10 cutoff: 120000     10times Time:822ms
11 cutoff: 135000     10times Time:819ms
12 cutoff: 150000     10times Time:853ms
13 cutoff: 165000     10times Time:925ms
14 cutoff: 180000     10times Time:912ms
15 cutoff: 195000     10times Time:836ms
16 cutoff: 210000     10times Time:822ms
17 cutoff: 225000     10times Time:793ms
18 cutoff: 240000     10times Time:807ms
19 cutoff: 255000     10times Time:909ms
20 cutoff: 270000     10times Time:806ms
21 cutoff: 285000     10times Time:839ms
22 cutoff: 300000     10times Time:812ms
23 cutoff: 315000     10times Time:799ms
24 cutoff: 330000     10times Time:802ms
25 cutoff: 345000     10times Time:833ms
26 cutoff: 360000     10times Time:802ms
27 cutoff: 375000     10times Time:798ms
28 cutoff: 390000     10times Time:807ms
29 cutoff: 405000     10times Time:861ms
30 cutoff: 420000     10times Time:844ms
31 cutoff: 435000     10times Time:802ms
32 cutoff: 450000     10times Time:795ms
33 cutoff: 465000     10times Time:921ms
34 cutoff: 480000     10times Time:818ms
35 cutoff: 495000     10times Time:789ms
36 cutoff: 510000     10times Time:862ms
37 cutoff: 525000     10times Time:855ms
38 cutoff: 540000     10times Time:769ms
39
40 Process finished with exit code 0
41
```