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1 "C:\Program Files\Amazon Corretto\jdk15.0.2_7\bin\
  java.exe" "-javaagent:C:\Program Files\JetBrains\
  IntelliJ IDEA Community Edition 2020.3.1\lib\idea_rt.
  jar=63220:C:\Program Files\JetBrains\IntelliJ IDEA
  Community Edition 2020.3.1\bin" -Dfile.encoding=UTF-8
  -classpath C:\Users\zalwa\IdeaProjects\
  Part1_SortingRunningTimes\out\production\
  Part1_SortingRunningTimes SortingRunTimeTester
2 array size: 50000
-----
3 bubble sort run-time(ms):    0.09214
4 selection sort run-time(ms): 0.01754
5 insertion sort run-time(ms): 0.00706
6 merge sort run-time(ms):    5.4E-4
7 quick sort run-time(ms):    3.4E-4
8 randomised quick sort run-time(ms):    6.2E-4
9 quadratic sort run-time(ms):    0.00706
10 array size: 47500
-----
11 bubble sort run-time(ms):    0.08848421052631579
12 selection sort run-time(ms): 0.01728421052631579
13 insertion sort run-time(ms): 0.006947368421052632
14 merge sort run-time(ms):    2.9473684210526316E-4
15 quick sort run-time(ms):    2.736842105263158E-4
16 randomised quick sort run-time(ms):    5.
    684210526315789E-4
17 quadratic sort run-time(ms):    0.006547368421052632
18 array size: 45000
-----
19 bubble sort run-time(ms):    0.06295555555555556
20 selection sort run-time(ms): 0.015466666666666667
21 insertion sort run-time(ms): 0.0058222222222222226
22 merge sort run-time(ms):    6.666666666666667E-5
23 quick sort run-time(ms):    6.666666666666667E-5
24 randomised quick sort run-time(ms):    2.
    2222222222222223E-4
25 quadratic sort run-time(ms):    0.006311111111111111
26 array size: 42500
-----
27 bubble sort run-time(ms):    0.059011764705882354
28 selection sort run-time(ms): 0.014564705882352941
29 insertion sort run-time(ms): 0.0055294117647058825
30 merge sort run-time(ms):    7.058823529411764E-5
31 quick sort run-time(ms):    9.411764705882353E-5

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32 randomised quick sort run-time(ms):      1.
    8823529411764707E-4
33 quadratic sort run-time(ms):      0.00548235294117647
34 array size: 40000
-----
35 bubble sort run-time(ms):      0.0554
36 selection sort run-time(ms): 0.014375
37 insertion sort run-time(ms): 0.0051
38 merge sort run-time(ms):      1.5E-4
39 quick sort run-time(ms):      7.5E-5
40 randomised quick sort run-time(ms):      1.75E-4
41 quadratic sort run-time(ms):      0.0051
42 array size: 37500
-----
43 bubble sort run-time(ms):      0.050666666666666665
44 selection sort run-time(ms): 0.013813333333333334
45 insertion sort run-time(ms): 0.004746666666666666
46 merge sort run-time(ms):      8.0E-5
47 quick sort run-time(ms):      1.0666666666666667E-4
48 randomised quick sort run-time(ms):      8.0E-5
49 quadratic sort run-time(ms):      0.004746666666666666
50 array size: 35000
-----
51 bubble sort run-time(ms):      0.047285714285714285
52 selection sort run-time(ms): 0.011971428571428572
53 insertion sort run-time(ms): 0.0044571428571428574
54 merge sort run-time(ms):      8.571428571428571E-5
55 quick sort run-time(ms):      8.571428571428571E-5
56 randomised quick sort run-time(ms):      1.
    1428571428571428E-4
57 quadratic sort run-time(ms):      0.004485714285714286
58 array size: 32500
-----
59 bubble sort run-time(ms):      0.04566153846153846
60 selection sort run-time(ms): 0.0124
61 insertion sort run-time(ms): 0.004123076923076923
62 merge sort run-time(ms):      9.23076923076923E-5
63 quick sort run-time(ms):      6.153846153846154E-5
64 randomised quick sort run-time(ms):      1.
    5384615384615385E-4
65 quadratic sort run-time(ms):      0.004153846153846154
66 array size: 30000
-----
67 bubble sort run-time(ms):      0.039866666666666667

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68 selection sort run-time(ms): 0.011233333333333333
69 insertion sort run-time(ms): 0.0038
70 merge sort run-time(ms):      6.666666666666667E-5
71 quick sort run-time(ms):      6.666666666666667E-5
72 randomised quick sort run-time(ms):      1.
   6666666666666666E-4
73 quadratic sort run-time(ms):      0.0048
74 array size: 27500
-----
75 bubble sort run-time(ms):      0.037418181818181816
76 selection sort run-time(ms): 0.01029090909090909
77 insertion sort run-time(ms): 0.003490909090909091
78 merge sort run-time(ms):      7.272727272727273E-5
79 quick sort run-time(ms):      1.0909090909090909E-4
80 randomised quick sort run-time(ms):      1.
   818181818181818E-4
81 quadratic sort run-time(ms):      0.
   0034909090909091
82 array size: 25000
-----
83 bubble sort run-time(ms):      0.0342
84 selection sort run-time(ms): 0.00944
85 insertion sort run-time(ms): 0.00324
86 merge sort run-time(ms):      8.0E-5
87 quick sort run-time(ms):      8.0E-5
88 randomised quick sort run-time(ms):      1.6E-4
89 quadratic sort run-time(ms):      0.0032
90 array size: 22500
-----
91 bubble sort run-time(ms):      0.029733333333333334
92 selection sort run-time(ms): 0.008355555555555555
93 insertion sort run-time(ms): 0.0031555555555555555
94 merge sort run-time(ms):      2.2222222222222223E-4
95 quick sort run-time(ms):      1.7777777777777779E-4
96 randomised quick sort run-time(ms):      3.
   5555555555555557E-4
97 quadratic sort run-time(ms):      0.
   00293333333333334
98 array size: 20000
-----
99 bubble sort run-time(ms):      0.0265
100 selection sort run-time(ms): 0.0074
101 insertion sort run-time(ms): 0.00255
102 merge sort run-time(ms):      1.0E-4

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103 quick sort run-time(ms):      1.0E-4
104 randomised quick sort run-time(ms):      3.0E-4
105 quadratic sort run-time(ms):      0.0034
106 array size: 17500
-----
107 bubble sort run-time(ms):      0.022914285714285713
108 selection sort run-time(ms): 0.006571428571428572
109 insertion sort run-time(ms): 0.0022285714285714287
110 merge sort run-time(ms):      1.1428571428571428E-4
111 quick sort run-time(ms):      5.714285714285714E-5
112 randomised quick sort run-time(ms):      1.
    1428571428571428E-4
113 quadratic sort run-time(ms):      0.
    0022285714285714287
114 array size: 15000
-----
115 bubble sort run-time(ms):      0.018733333333333334
116 selection sort run-time(ms): 0.0056
117 insertion sort run-time(ms): 0.0018666666666666666
118 merge sort run-time(ms):      6.666666666666667E-5
119 quick sort run-time(ms):      6.666666666666667E-5
120 randomised quick sort run-time(ms):      1.
    3333333333333334E-4
121 quadratic sort run-time(ms):      0.
    0019333333333333333
122 array size: 12500
-----
123 bubble sort run-time(ms):      0.01528
124 selection sort run-time(ms): 0.00464
125 insertion sort run-time(ms): 0.0016
126 merge sort run-time(ms):      8.0E-5
127 quick sort run-time(ms):      8.0E-5
128 randomised quick sort run-time(ms):      8.0E-5
129 quadratic sort run-time(ms):      0.00152
130 array size: 10000
-----
131 bubble sort run-time(ms):      0.0118
132 selection sort run-time(ms): 0.0044
133 insertion sort run-time(ms): 0.0019
134 merge sort run-time(ms):      1.0E-4
135 quick sort run-time(ms):      1.0E-4
136 randomised quick sort run-time(ms):      1.0E-4
137 quadratic sort run-time(ms):      0.0013
138 array size: 7500

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138 -----
139 bubble sort run-time(ms):    0.0085333333333333334
140 selection sort run-time(ms): 0.00546666666666666665
141 insertion sort run-time(ms): 0.00106666666666666667
142 merge sort run-time(ms):     1.3333333333333334E-4
143 quick sort run-time(ms):     0.0
144 randomised quick sort run-time(ms):    1.
    3333333333333334E-4
145 quadratic sort run-time(ms):    0.
    00106666666666666667
146 array size: 5000
    -----
147 bubble sort run-time(ms):    0.0052
148 selection sort run-time(ms): 0.002
149 insertion sort run-time(ms): 6.0E-4
150 merge sort run-time(ms):     0.0
151 quick sort run-time(ms):     0.0
152 randomised quick sort run-time(ms):    2.0E-4
153 quadratic sort run-time(ms):    6.0E-4
154 array size: 2500
    -----
155 bubble sort run-time(ms):    0.0024
156 selection sort run-time(ms): 0.0012
157 insertion sort run-time(ms): 4.0E-4
158 merge sort run-time(ms):     0.0
159 quick sort run-time(ms):     0.0
160 randomised quick sort run-time(ms):    4.0E-4
161 quadratic sort run-time(ms):    0.0
162
163 Process finished with exit code 0
164
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