Selection sort by min Step: 1 [10, 16, 73, 65, 38, 15, 22, 79, 87, 64] Step: 2 [10, 15, 73, 65, 38, 16, 22, 79, 87, 64] Step: 3 [10, 15, 16, 65, 38, 73, 22, 79, 87, 64] Step: 4 [10, 15, 16, 22, 38, 73, 65, 79, 87, 64] Step: 5 [10, 15, 16, 22, 38, 73, 65, 79, 87, 64] Step: 6 [10, 15, 16, 22, 38, 64, 65, 79, 87, **73**] Step: 7 [10, 15, 16, 22, 38, 64, 65, 79, 87, 73] Step: 8 [10, 15, 16, 22, 38, 64, 65, 73, 87, 79] Step: 9 [10, 15, 16, 22, 38, 64, 65, 73, 79, 87] Step: 10 [10, 15, 16, 22, 38, 64, 65, 73, 79, 87] Finalized sorted list [10, 15, 16, 22, 38, 64, 65, 73, 79, 87] Selection sort by max Step: 1 [15, 16, 73, 65, 38, 10, 22, 79, <mark>64</mark>, 87] Step: 2 [15, 16, 73, 65, 38, 10, 22, 64, 79, 87] Step: 3 [15, 16, 64, 65, 38, 10, 22, 73, 79, 87] Step: 4 [15, 16, 64, 22, 38, 10, 65, 73, 79, 87] Step: 5 [15, 16, 10, 22, 38, 64, 65, 73, 79, 87] Step: 6 [15, 16, 10, 22, 38, 64, 65, 73, 79, 87] Step: 7

[15, 16, 10, 22, 38, 64, 65, 73, 79, 87]

[15, **10**, **16**, 22, 38, 64, 65, 73, 79, 87]

Step: 8

Step: 9

```
[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]
```

Step: 10

[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]

Finalized sorted list

[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]

Insertion sort

Step: 1

[15, 16, 73, 65, 38, 10, 22, 79, 87, 64]

Step: 2

[15, 16, 73, 65, 38, 10, 22, 79, 87, 64]

Step: 3

[15, 16, 65, 73, 38, 10, 22, 79, 87, 64]

Step: 4

[15, 16, 38, 65, 73, 10, 22, 79, 87, 64]

Step: 5

[10, 15, 16, 38, 65, 73, 22, 79, 87, 64]

Step: 6

[10, 15, 16, 22, 38, 65, 73, 79, 87, 64]

Step: 7

[10, 15, 16, 22, 38, 65, 73, 79, 87, 64]

Step: 8

[10, 15, 16, 22, 38, 65, 73, 79, 87, 64]

Step: 9

[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]

Finalized sorted list

[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]

Quick sort

Step: 1

[15, 16, 73, 65, 38, 10, 22, 79, 87, 64]

Step: 2

[10, 15, 73, 65, 38, 16, 22, 79, 87, 64]

Step: 3

[10, 15, 73, 65, 38, 16, 22, 79, 87, 64]

Step: 4

[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]

Step: 5

[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]

Step: 6

[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]

Step: 7

[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]

Step: 8

```
[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]
Step: 9
[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]
Step: 10
[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]
Step: 11
[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]
Step: 12
[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]
Step: 13
[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]
Step: 14
[10, 15, 16, 22, 38, 64, 65, 73, 87, 79]
Step: 15
[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]
Finalized sorted list
[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]
Merge sort
Splitting [15, 16, 73, 65, 38, 10, 22, 79, 87, 64]
Splitting [15, 16, 73, 65, 38]
Splitting [15, 16]
Splitting [15]
Merging [15]
Splitting [16]
Merging [16]
Merging [15, 16]
Splitting [73, 65, 38]
Splitting [73]
Merging [73]
Splitting [65, 38]
Splitting [65]
Merging [65]
Splitting [38]
Merging [38]
Merging [38, 65]
Merging [38, 65, 73]
Merging [15, 16, 38, 65, 73]
Splitting [10, 22, 79, 87, 64]
Splitting [10, 22]
Splitting [10]
Merging [10]
Splitting [22]
Merging [22]
```

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Merging [10, 22]
Splitting [79, 87, 64]
Splitting [79]
Merging [79]
Splitting [87, 64]
Splitting [87]
Merging [87]
Splitting [64]
Merging [64]
Merging [64, 87]
Merging [64, 79, 87]
Merging [10, 22, 64, 79, 87]
Merging [10, 15, 16, 22, 38, 64, 65, 73, 79, 87]
Finalized sorted list
[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]
Heap sort
Step: 1
[10, 15, 16, 73, 65, 38, 22, 79, 87, 64]
Step: 2
[10, 15, 16, 73, 65, 38, 22, 79, 87, 64]
Step: 3
[10, 15, 16, 73, 65, 38, 22, 79, 87, 64]
Step: 4
[10, 15, 16, 22, 73, 65, 38, 79, 87, 64]
Step: 5
[10, 15, 16, 22, 38, 73, 65, 79, 87, 64]
Step: 6
[10, 15, 16, 22, 38, 64, 73, 65, 79, 87]
Step: 7
[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]
Step: 8
[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]
Step: 9
[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]
Step: 10
[10, 15, 16, 22, 38, 64, 65, 73, 79, 87]
```