

Bubble Sort

28 October 2023 16:41

Iteration 1

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 30 | 20 | 60 | 50 | 10 | 40 |

pos Pos+1

30 > 20 ? Yes
swap

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 60 | 50 | 10 | 40 |

pos Pos+1

30 > 60 ? no

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 60 | 50 | 10 | 40 |

pos Pos+1

60 > 50 ? Yes
swap

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 50 | 60 | 10 | 40 |

pos Pos+1

60 > 10 ? Yes
swap

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 50 | 10 | 60 | 40 |

pos Pos+1

60 > 40 ? Yes
swap

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 50 | 10 | 40 | 60 |

Iteration 2

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 50 | 10 | 40 | 60 |

pos Pos+1

20 > 30 ? no

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 50 | 10 | 40 | 60 |

pos Pos+1

30 > 50 ? no

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 50 | 10 | 40 | 60 |

pos Pos+1

50 > 10 ? Yes
swap

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 10 | 50 | 40 | 60 |

pos Pos+1

50 > 40 ? Yes
swap

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 10 | 50 | 40 | 60 |

50 > 40 ? Yes
swap

pos Pos+1

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 10 | 40 | 50 | 60 |

Iteration 3

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 10 | 40 | 50 | 60 |

20 > 30 ? no

pos Pos+1

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 30 | 10 | 40 | 50 | 60 |

30 > 10 ? Yes
Swap

pos Pos+1

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 10 | 30 | 40 | 50 | 60 |

30 > 40 ? no

pos Pos+1

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 10 | 30 | 40 | 50 | 60 |

Iteration 4

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 20 | 10 | 30 | 40 | 50 | 60 |

20 > 10 ? Yes
swap

pos Pos+1

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 10 | 20 | 30 | 40 | 50 | 60 |

20 > 30 ? no

pos Pos+1

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 10 | 20 | 30 | 40 | 50 | 60 |

Iteration 5

| [0] | [1] | [2] | [3] | [4] | [5] |
|-----|-----|-----|-----|-----|-----|
| 10 | 20 | 30 | 40 | 50 | 60 |

10 > 20 ? no

pos Pos+1