## **Bubble Sort** 23 October 2023 12:48 Iteration 1 [0] [1] [2] [3] [4] [5] 30 > 20 ? Yes swap 30 20 60 50 10 40 pos Pos+1 [4] [0] [1] [2] [3] [5] 30 > 60 ? no 20 30 50 10 40 60 pos Pos+1 [0] [1] [3] [4] [2] [5] 60 > 50 ? Yes swap 20 30 50 10 40 60 Pos+1 pos [0] [1] [2] [4] [3] [5] 60 > 10 ? Yes swap 20 30 50 60 10 40 Pos+1 pos [0] [1] [2] [3] [4] [5] 60 > 40 ? Yes swap 20 30 50 10 60 40 Pos+1 pos <mark>[5]</mark> [0] [1] [2] [3] [4] 20 30 50 10 40 <mark>60</mark> Iteration 2 [0] [1] [2] [3] [4] [5] 20 > 30 ? no 20 30 50 10 40 <mark>60</mark> pos Pos+1 [0] [1] [2] [3] [4] [5] 30 > 50 ? no 20 30 50 10 40 <mark>60</mark> pos Pos+1

[0]

20

[0]

20

[1]

30

[1]

30

[2]

50

[2]

10

pos

[4]

40

[4]

40

Pos+1

[3]

10 Pos+1

[3]

50

pos

<mark>[5]</mark>

<mark>60</mark>

[5]

<mark>60</mark>

50 > 10 ? Yes swap

50 > 40 ? Yes

swap

	[0]	[1]	[2]	[3]	[4]	<mark>[5]</mark>	
	20	30	10	40	<mark>50</mark>	<mark>60</mark>	
Iteration 3							
iteration 3							
	[0]	[1]	[2]	[3]	<mark>[4]</mark>	<mark>[5]</mark>	20 > 30 ? no
	20	30	10	40	<mark>50</mark>	<mark>60</mark>	20 > 30 : 110
	pos	Pos+1					
	[0]	[1]	[2]	[3]	[4]	[5]	30 > 10 ? Ye
	20	30	10	40	<mark>50</mark>	<mark>60</mark>	swap
		pos	Pos+1				
	[0]	[1]	[2]	[3]	[4]	<mark>[5]</mark>	30 > 40 ? 1
	20	10	30 pos	40 Pos+1	<mark>50</mark>	<mark>60</mark>	
	[0]	[1]	[2]	[3]	[4]	[5]	_
	20	10	30	<mark>40</mark>	<mark>50</mark>	<mark>60</mark>	
Iteration 4	[0] 20	[1] 10	[2] 30	[3] 40	[4] 50	[5] 60	20 > 10 ? Ye swap
	pos	Pos+1					
	[0]	[1]	[2]	[3]	<mark>[4]</mark>	[5]	20 > 30 ? no
	10	20	30	<mark>40</mark>	<mark>50</mark>	<mark>60</mark>	
		pos	Pos+1				
	[0]	[1]	[2]	[3]	<mark>[4]</mark>	[5]	
	[0] 10	[1] 20	[2] 30	[3] 40	[4] 50	[5] 60	
Iteration 5	[0]	[1]	[2]	[3]	[4]	[5]	10 > 20 2 2
Iteration 5	[0] 10	[1] 20	30	40	50	60	10 > 20 ? r
Iteration 5	[0]	[1]	[2]	[3]	[4]	[5]	10 > 20 ? r
Iteration 5	[0] 10	[1] 20 Pos+1	[2]	[3]	[4] 50	[5]	10 > 20 ? r

