

Bubble Sort

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Iteration 1

[0]	[1]	[2]	[3]	[4]	[5]	30 > 20 ? Yes swap
30	20	60	50	10	40	
pos		Pos+1				

[0]	[1]	[2]	[3]	[4]	[5]	30 > 60 ? no
20	30	60	50	10	40	
pos		Pos+1				

[0]	[1]	[2]	[3]	[4]	[5]	60 > 50 ? Yes swap
20	30	60	50	10	40	
pos		Pos+1				

[0]	[1]	[2]	[3]	[4]	[5]	60 > 10 ? Yes swap
20	30	50	60	10	40	
pos		Pos+1				

[0]	[1]	[2]	[3]	[4]	[5]	60 > 40 ? Yes swap
20	30	50	10	60	40	
pos		Pos+1				

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

Iteration 2

[0]	[1]	[2]	[3]	[4]	[5]	20 > 30 ? no
20	30	50	10	40	60	
pos		Pos+1				

[0]	[1]	[2]	[3]	[4]	[5]	30 > 50 ? no
20	30	50	10	40	60	
pos		Pos+1				

[0]	[1]	[2]	[3]	[4]	[5]	50 > 10 ? Yes swap
20	30	50	10	40	60	
pos		Pos+1				

[0]	[1]	[2]	[3]	[4]	[5]	50 > 40 ? Yes swap
20	30	10	50	40	60	
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

pos Pos+1

20 > 30 ? no

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

pos Pos+1

30 > 10 ? Yes
swap

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

pos Pos+1

30 > 40 ? No

[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

pos Pos+1

20 > 10 ? Yes
swap

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

pos Pos+1

20 > 30 ? no

[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

pos Pos+1

10 > 20 ? no

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

No. of Iterations = $n-1$
= 5

No. of comparisons = $(n-1) + (n-2) + (n-3) \dots 1$
 $5+4+3+2+1 = 15$