

# Selection Sort

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Iteration 1:

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

Sel\_pos                  pos

30 > 20 ? Yes  
swap

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

Sel\_pos                  pos

20 > 60 ? no

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

Sel\_pos                  pos

20 > 50 ? no

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

Sel\_pos                  pos

20 > 10 ? Yes  
swap

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

Sel\_pos                  pos

10 > 40 ? no

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

Iteration 2

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

Sel\_pos                  pos

30 > 60 ? no

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

Sel\_pos                  pos

30 > 50 ? no

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

Sel\_pos                  pos

30 > 20 ? Yes  
swap

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

Sel\_pos                  pos

20 > 40 ? no

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

Iteration 3 :

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

Sel\_pos      pos

Arr[sel\_pos] > arr[pos] -> yes  
swap

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

Sel\_pos      pos

Arr[sel\_pos] > arr[pos] ? Yes  
swap

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

Sel\_pos      pos

30 > 40 ? no

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

Iteration 4:

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

Sel\_pos      pos

60 > 50 ? Yes  
swap

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

Sel\_pos      pos

50 > 40 ? Yes  
swap

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

Iteration 5

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

Sel\_pos      pos

60 > 50 ? Yes  
swap

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

Iterations = n-1