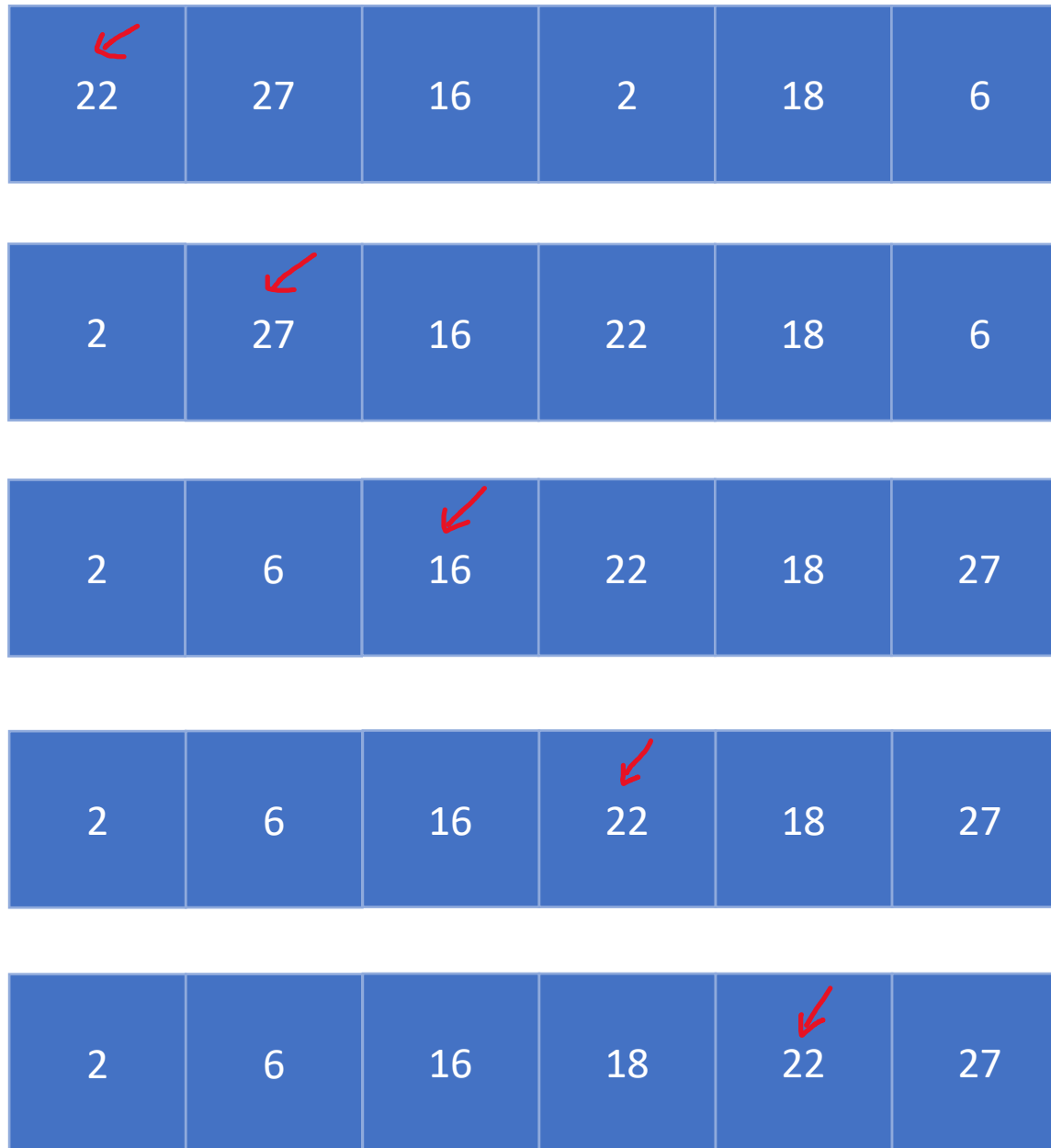


Insertion Sort

The complexity is $O(n^2)$. In each iteration, the number of elements are decreased by one. So at the end, there is a $(n^2+n)/2$ steps.

After having a sorted array, finding the number 18 refers to the average case since it is in the middle of the array.



7	3	5	8	2	9	4	15	6
---	---	---	---	---	---	---	----	---

1

2	3	5	8	7	9	4	15	6
---	---	---	---	---	---	---	----	---

2

2	3	5	8	7	9	4	15	6
---	---	---	---	---	---	---	----	---

3

2	3	4	8	7	9	5	15	6
---	---	---	---	---	---	---	----	---

4

2	3	4	6	7	9	5	15	8
---	---	---	---	---	---	---	----	---