TODO

- ☑ search
- ☐ sort

selection sort
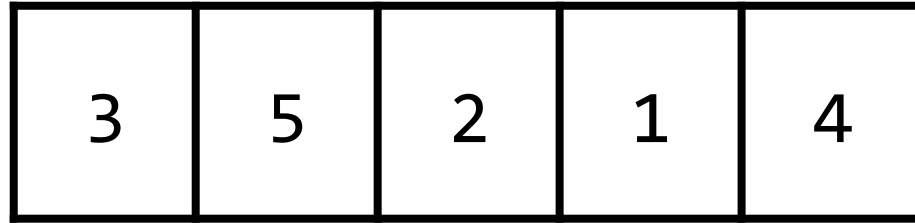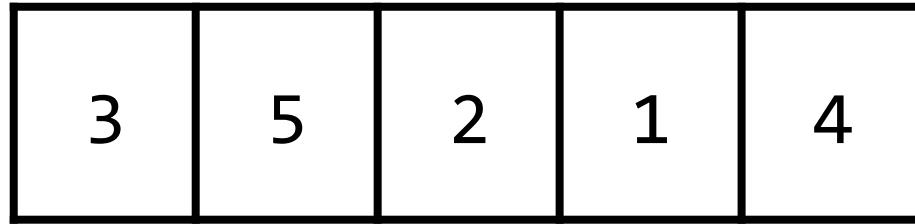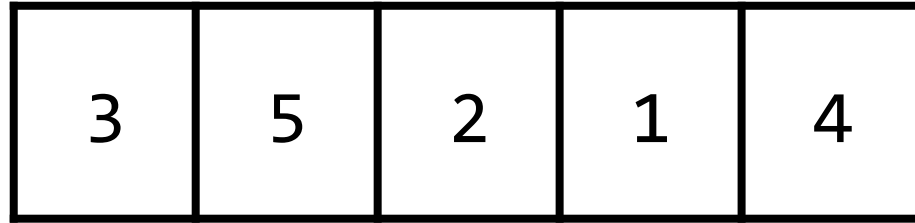
3	5	2	1	4
[0]	[1]	[2]	[3]	[4]

↑ i   ↑ min

selection sort

3	5	2	1	4
[0]	[1]	[2]	[3]	[4]

↑   ↑

i   min

selection sort

3	5	2	1	4
[0]	[1]	[2]	[3]	[4]

↑ i

↑ min

selection sort

3	5	2	1	4
[0]	[1]	[2]	[3]	[4]

↑   ↑

i   min

selection sort

selection sort

3	5	2	1	4
[0]	[1]	[2]	[3]	[4]

i

min

selection sort

3	5	2	1	4
[0]	[1]	[2]	[3]	[4]

↑
i   min

selection sort

1	5	2	3	4
[0]	[1]	[2]	[3]	[4]

↑
i   min

selection sort

1	5	2	3	4
[0]	[1]	[2]	[3]	[4]

↑ i

↑ min

selection sort

selection sort

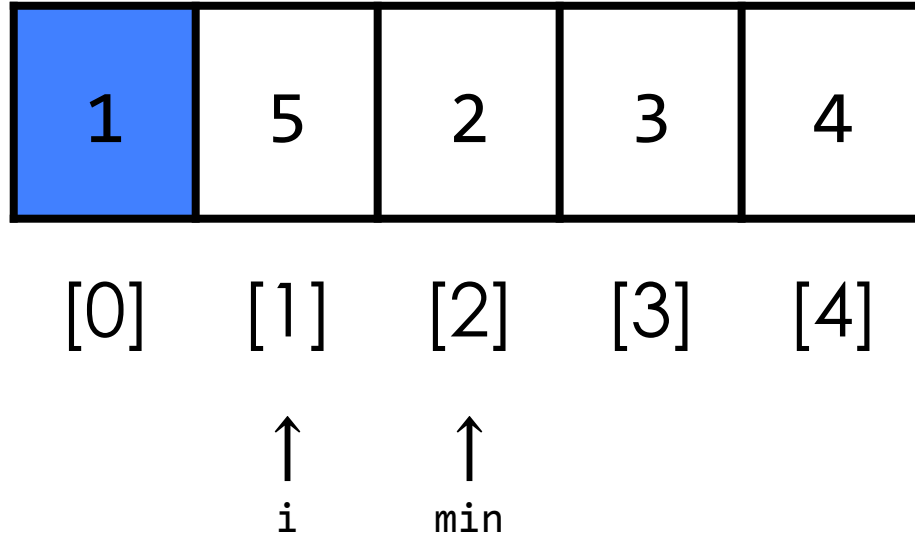| 1	5	2	3	4
[0]	[1]	[2]	[3]	[4]

↑   ↑

i   min

selection sort

selection sort

1	2	5	3	4
[0]	[1]	[2]	[3]	[4]

↑
i   min

selection sort

1	2	5	3	4
[0]	[1]	[2]	[3]	[4]

↑ i

↑ min

selection sort

1	2	5	3	4
[0]	[1]	[2]	[3]	[4]

↑   ↑

i   min

selection sort

1	2	5	3	4
[0]	[1]	[2]	[3]	[4]

↑
i   min

selection sort

selection sort

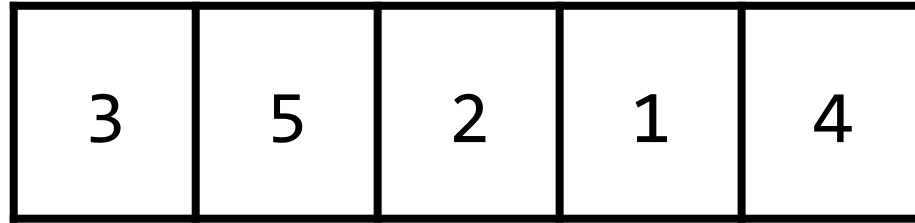| 1	2	3	4	5
[0]	[1]	[2]	[3]	[4]
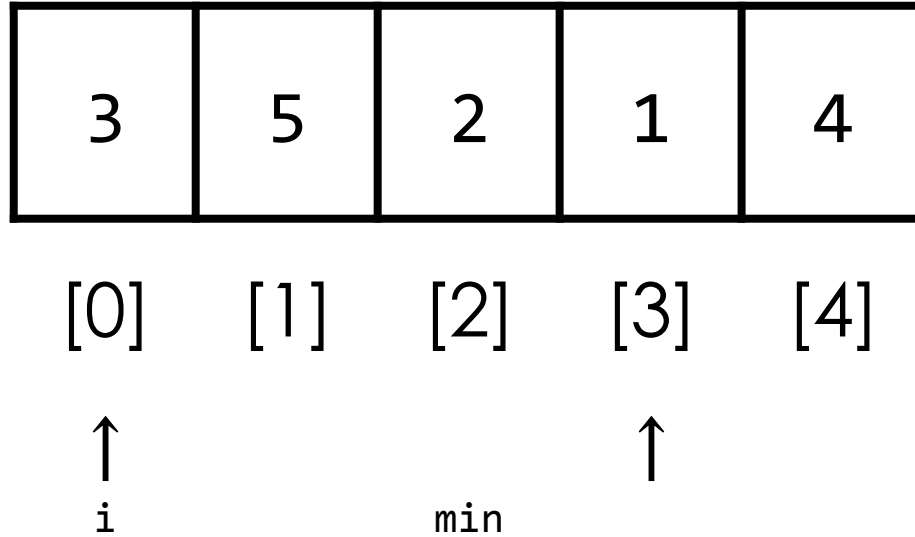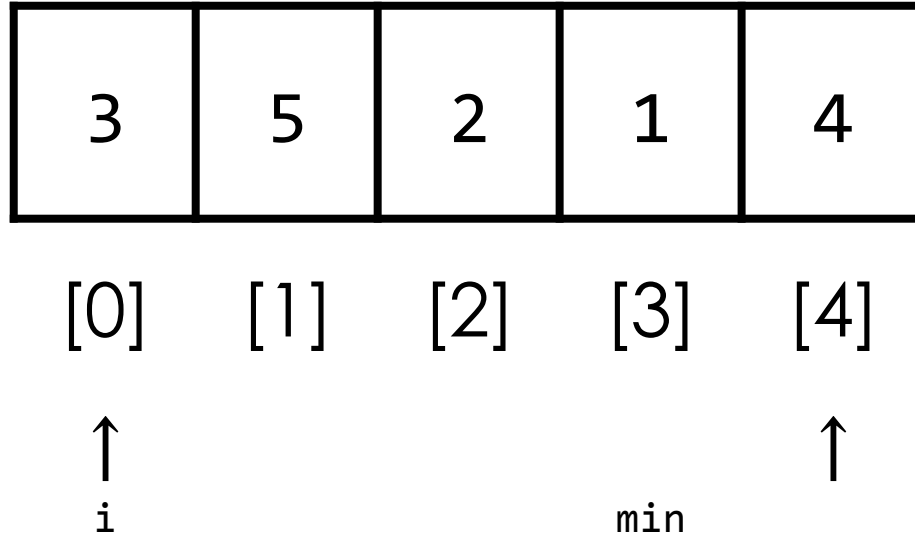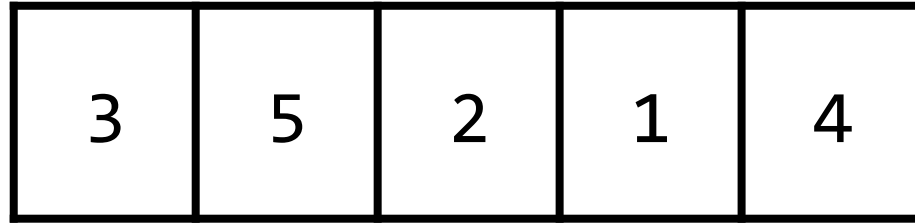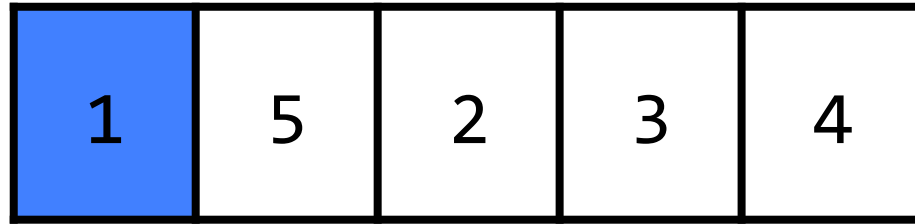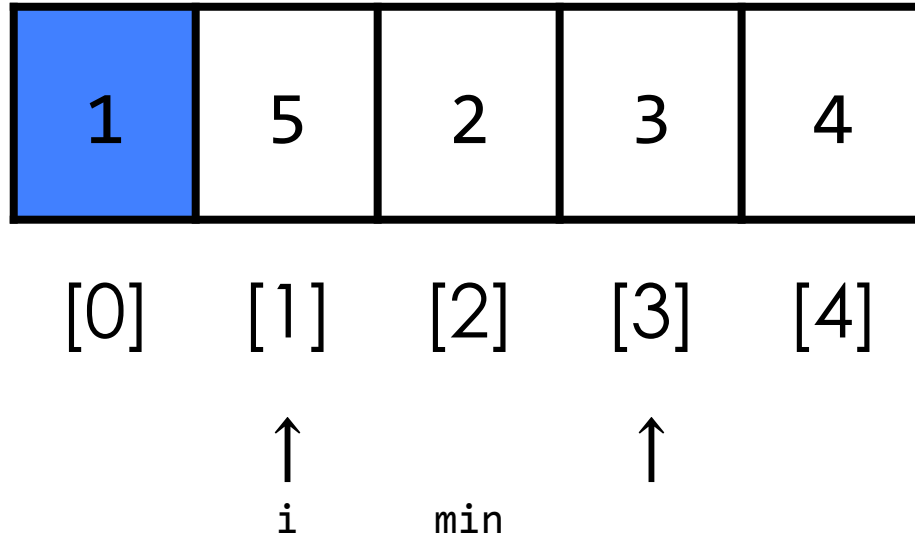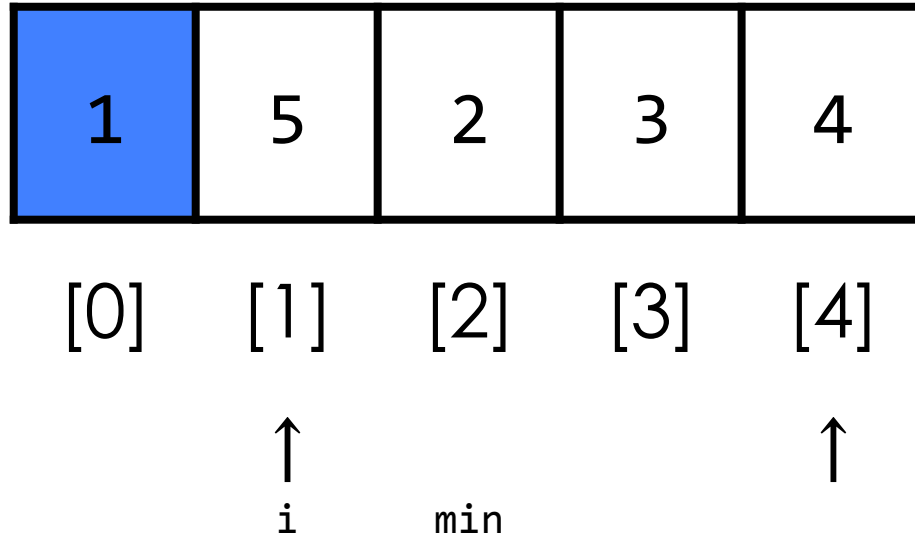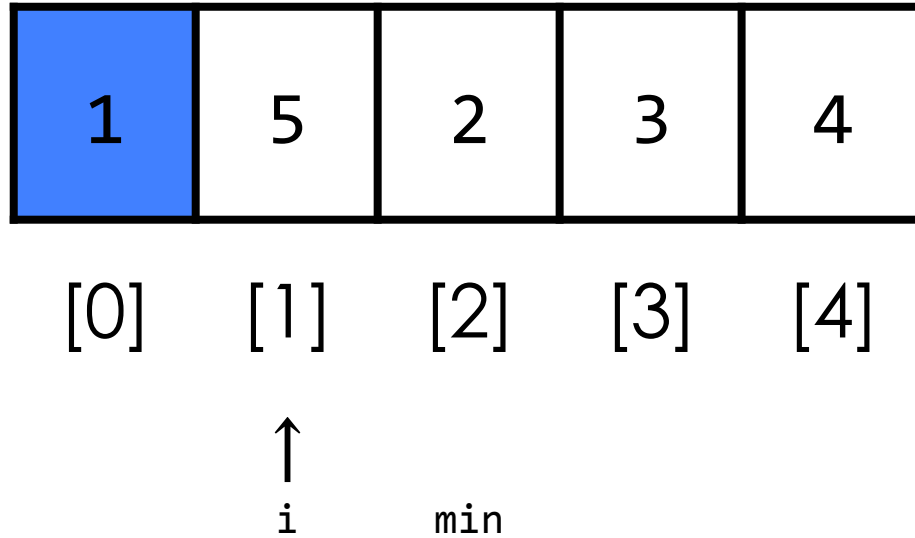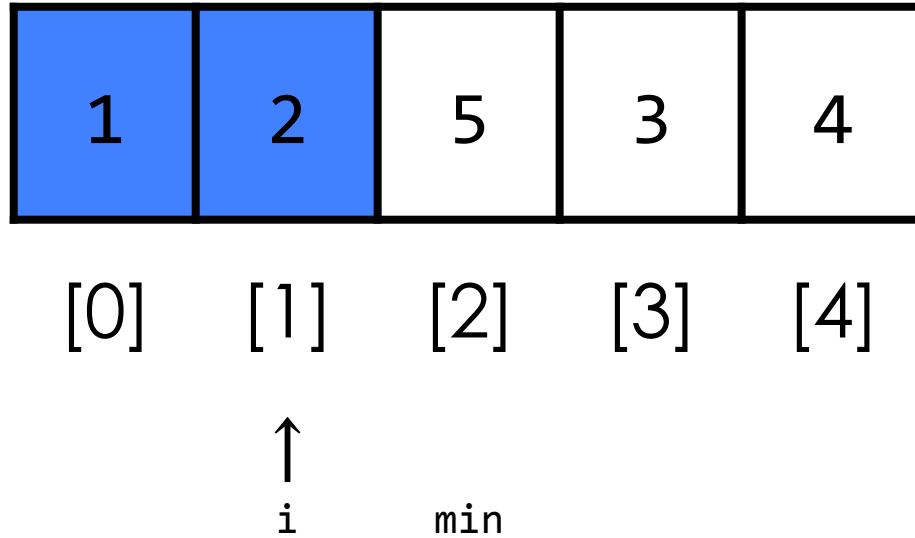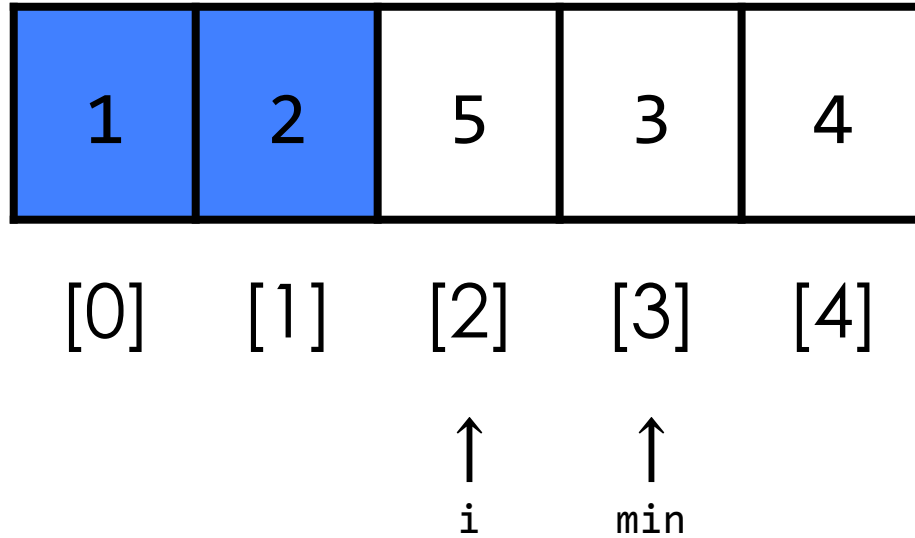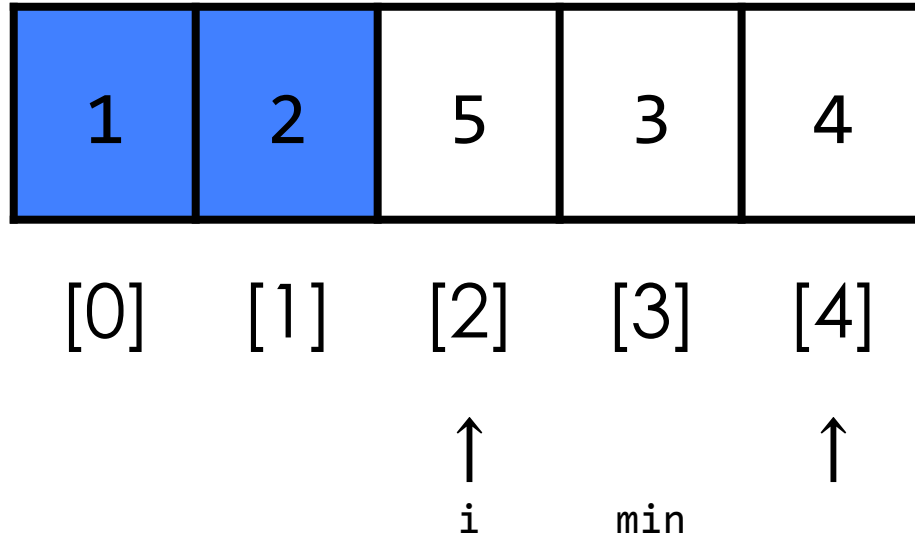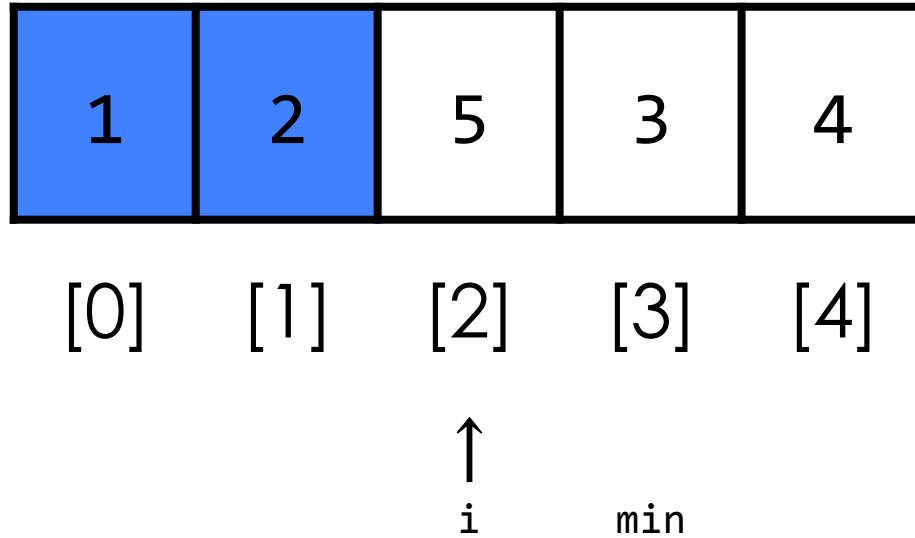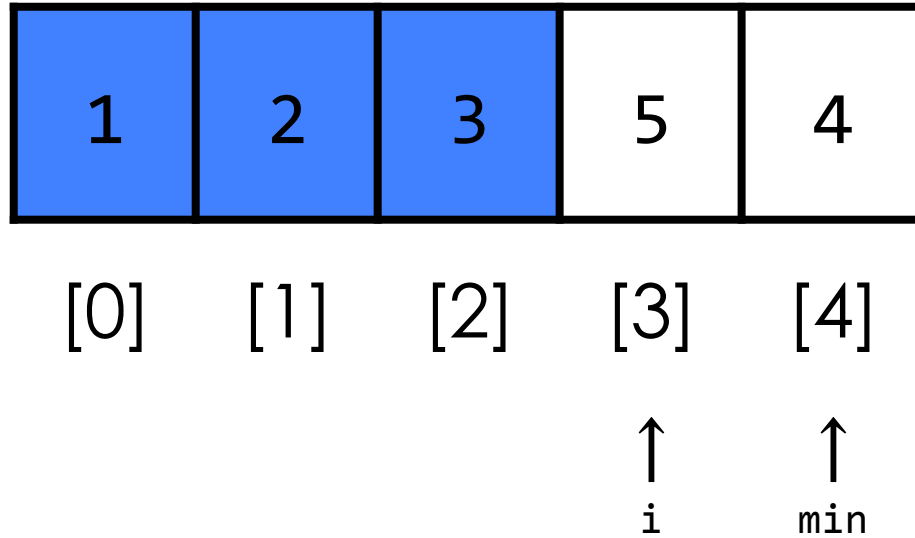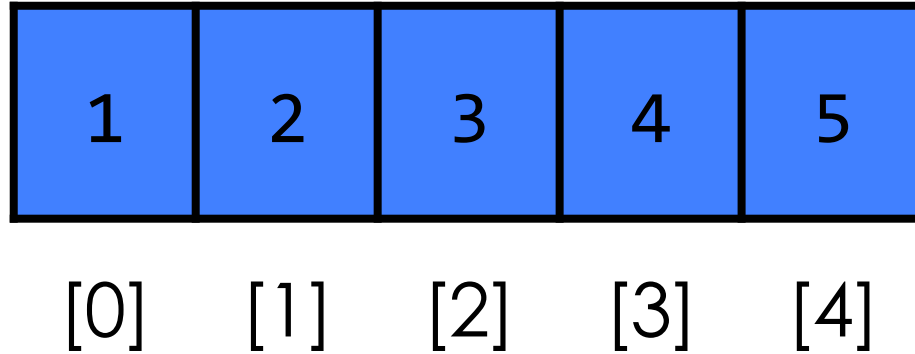
selection sort pseudocode

```
for i = 0 to n – 2
    find smallest element from i + 1 to n – 1
    exchange smallest element with element at i
```

bubble sort

- □ iterate over list
- □ compare adjacent elements
- □ swap elements that are in the wrong order
- □ largest element will 'bubble' to the end
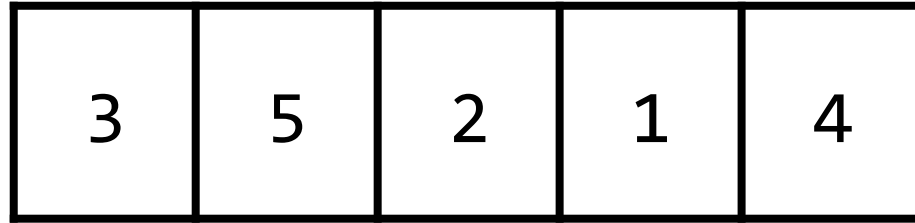- □ the list is sorted once no elements have been swapped

bubble sort

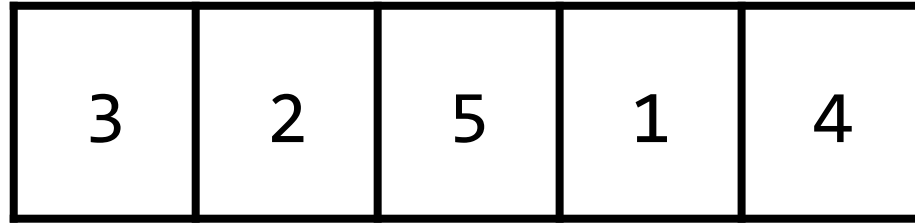| 3	5	2	1	4
[0]	[1]	[2]	[3]	[4]

↑ left   ↑ right

bubble sort

3	5	2	1	4
[0]	[1]	[2]	[3]	[4]

left → [1]

right → [2]

bubble sort

3	2	5	1	4
[0]	[1]	[2]	[3]	[4]

↑ left   ↑ right

bubble sort

3	2	5	1	4
[0]	[1]	[2]	[3]	[4]

left ↑ (at [2])　right ↑ (at [3])

bubble sort

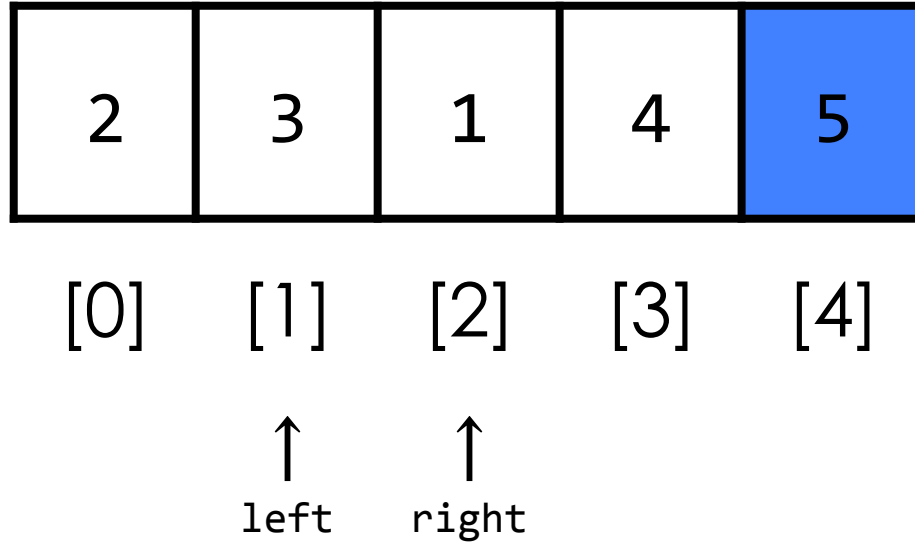| 3	2	1	5	4
[0]	[1]	[2]	[3]	[4]

↑ left

↑ right

bubble sort

bubble sort

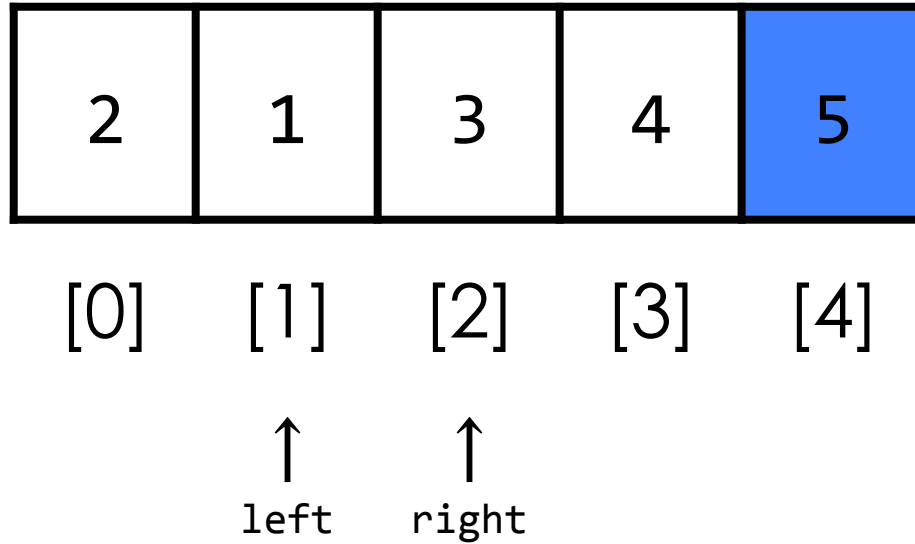| 3	2	1	4	5
[0]	[1]	[2]	[3]	[4]

↑ left   ↑ right

bubble sort

bubble sort

bubble sort

bubble sort

2	1	3	4	5
[0]	[1]	[2]	[3]	[4]

left right

bubble sort

bubble sort

2	1	3	4	5
[0]	[1]	[2]	[3]	[4]

↑ left

↑ right

bubble sort

bubble sort

1	2	3	4	5
[0]	[1]	[2]	[3]	[4]
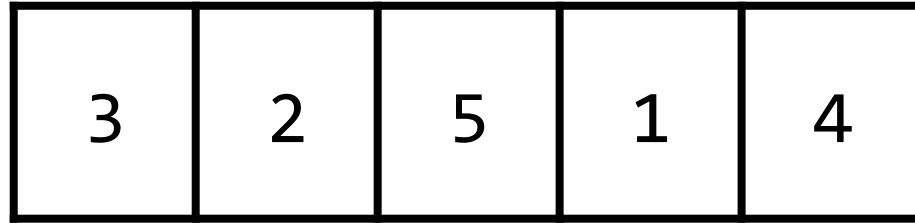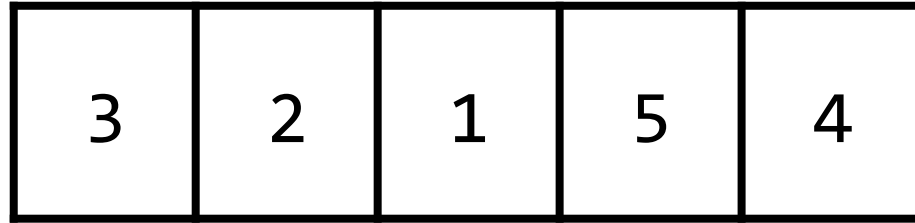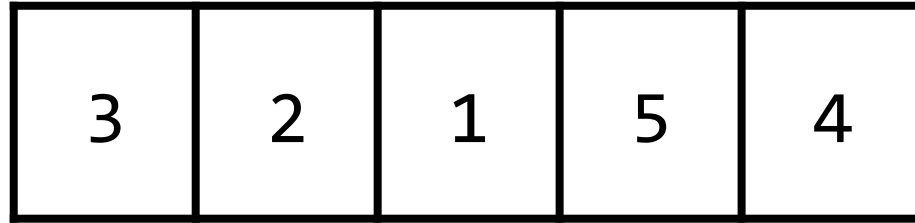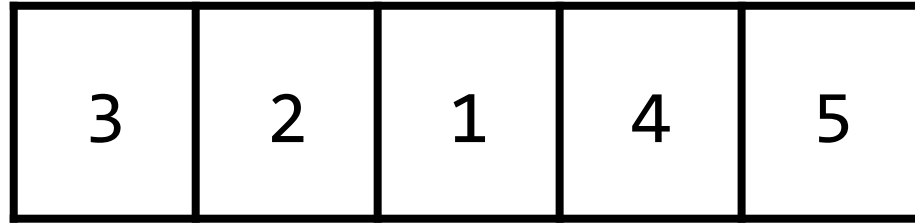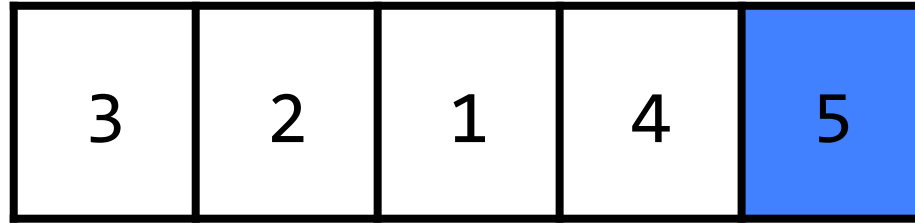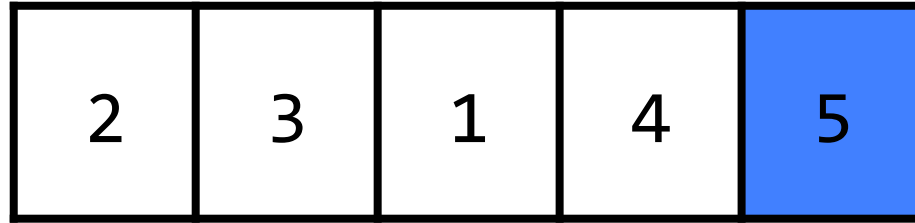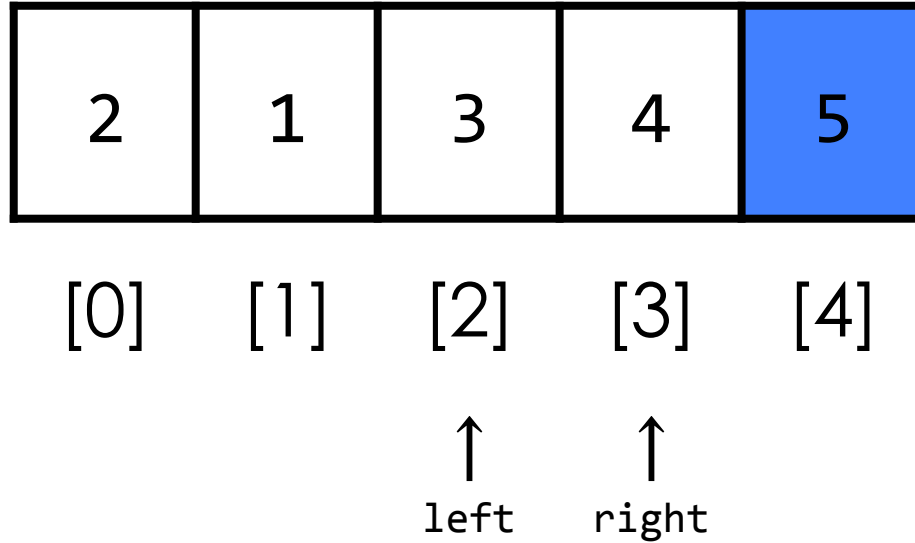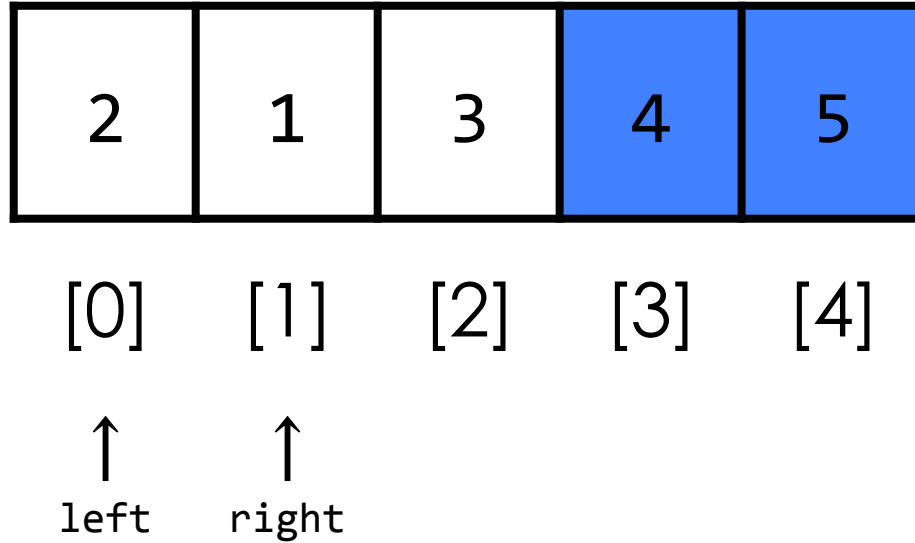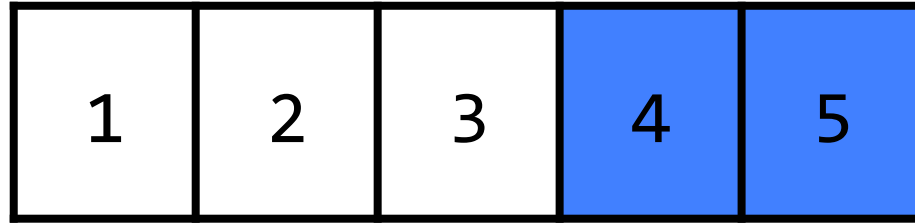
↑ left   ↑ right

bubble sort

bubble sort

TODO

☑ search

☑ sort

this was find