

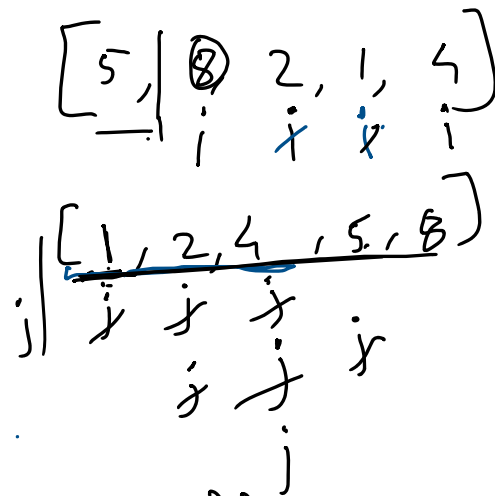
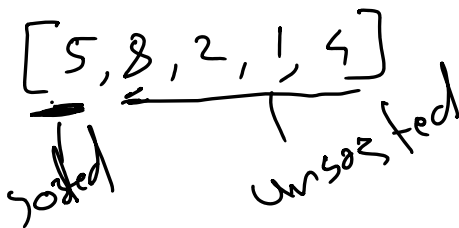
[1, 2, 3, 5, 7, 8]

[0] = 5 > [1] = 8
 [3] = 3
 [4] = 1 > [3] = 3
 [2] = 7
 [3] = 3
 [2] = 7

i = 0
 current = ~~1~~ 3
 j = i + 1 = 1
 = ~~1~~ 3
 4
 3
 4

[3] = 7
 [4] = 5
 [4] = 7

insertion sort



(8)

(2)

(1)

(4)

```

for (int i = 1; i < arr.length; i++) {
    key = arr[i];
    j = i - 1;
    while (j >= 0 && arr[j] > key) {
        arr[j + 1] = arr[j];
        j--;
    }
}
    
```

$$\{ \text{arr}[j+1] = \text{key} \}$$