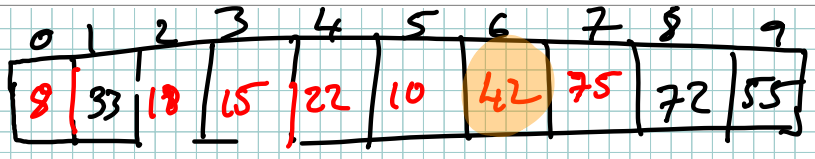
QUICK SORT

```
QuickSort (array, first, last)
    int pivotIndex
    if (first < last) {
        pivotIndex = partition(array, first, last);
        Quicksort(array, first, pivotIndex-1);
        Quicksort(array, pivotIndex+1, last);
    }
}
```

0 9 6 0 8 7 9

```
int partition(array, first, last) {
    int pivot = array[first];
    int lastS1 = first;
    for (firstUnknown = first+1; firstUnknown <= last;
                                 firstUnknown++) {
        if (array[firstUnknown] < pivot) {
            ++lastS1;
            temp = array[firstUnknown];
            array[firstUnknown] = array[lastS1];
            array[lastS1] = temp;
        }
    }
    temp = array[first];
    array[first] = array[lastS1];
    array[lastS1] = temp;
    return lastS1;
}
```


0 1 2 3 4 5 6 7 8 9
8 33 18 15 22 10 42 75 72 55