

Quicksort in C
 Source: <http://en.wikipedia.org/wiki/Quicksort>
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 It is from the Wikipedia article "Quicksort" dated 2006-11-07.

```
void quickSort(int numbers[],
               int array_size)
```

```
q_sort(numbers, 0,
        array_size - 1);
```



```
void q_sort(int numbers[],
            int left, int right)
```

```
int pivot, l_hold, r_hold;
l_hold = left;
r_hold = right;
pivot = numbers[left];
```

«DecisionInput»
 left < right

«DecisionInput»
 (numbers[right] >= pivot) && (left < right)

```
numbers[left] = pivot;
pivot = left;
left = l_hold;
right = r_hold;
```

«DecisionInput»
 left != right

«DecisionInput»
 left < pivot

```
right--;
```

```
q_sort(numbers,
        left, pivot-1);
```

«DecisionInput»
 right > pivot

```
numbers[left] = numbers[right];
left++;
```

«DecisionInput»
 (numbers[left] <= pivot) && (left < right)

```
q_sort(numbers,
        pivot+1, right);
```

«DecisionInput»
 left != right

```
left++;
```

```
numbers[right] = numbers[left];
right--;
```

