Algorithm

index numbers.

```
QUICKSORT(A, p, r)  ▷ A[p..r]
1  if p < r
2     then q ← PARTITION(A, p, r)
3          QUICKSORT(A, p, q − 1)
4          QUICKSORT(A, q + 1, r)
```

Algorithm

```
PARTITION(A, p, q)  ▷ A[p..q]
1  x ← A[p]          ▷ pivot = A[p]
2  i ← p
3  for j ← p + 1 to q
4       do if A[j] ≤ x
5             then i ← i + 1
6                  exchange A[i] ↔ A[j]
7  exchange A[p] ↔ A[i]
8  return i
```

j is being used as the counter in this loop

temp = a[0]

a[0] = a[1]

a[1] = a[0]

temp

How many elements in this array? -> 5 elements