

Inplace sorting

Dutch National flag algorithm

A diagram illustrating the initial state of an array $[1, 0, 1, 1, 2, 0, 0, 1]$ for a sorting algorithm. The array is shown with its elements. Above the array, there are three pointers: *left* (red arrow pointing to the first element '1'), *mid* (purple arrow pointing to the fourth element '1'), and *right* (red arrow pointing to the last element '1'). Above the *mid* pointer, there are four small purple dots. Above the *right* pointer, there are three small red dots.

$$O(1)$$

if mid == 0:
 swap with left

if $mid == 2$:
swap with right

