$[1. 1. 1. 1. 1. 3]$

$[1. 3. 1. 1. 1. 1.]$

$[1. 1. 1. 1. 3. 1]$

↑ nums[left]   ↑ nums[mid]   ↑ nums[right]

when nums[mid] === nums[right] or
      nums[mid] === nums[left].

We don't know the order within range.

we only know nums[right] or nums[left]
                is not the target.

so we can move left or right by 1.