

## 二分法 Leetcode 704



找到 target 返回下标

没找到返回 -1

① while ( $left < right$ )

$\leq ?$

② if ( $nums[middle] > target$ )

$right = middle$  ?  
 $middle - 1$  ?

分类讨论:  $[left, right]$  ↘ 一般

$[left, right)$

$(left, right]$  很少

①  $left \in [left, right]$   $I[1, 1]$

$left = 0$

$right = numsize - 1$

while ( $left \leq right$ )

$$\{ \quad middle = left + \frac{right - left}{2}$$

$$middle = \frac{left + right}{2} \text{ 可能越界}$$

if ( $nums[middle] > target$ )

$right = middle - 1$

$nums[middle]$  一定不包含

$\therefore middle - 1$  else if ( $nums[middle] < target$ )

$left = middle + 1$

else return middle;

}

return -1;



②  $[left, right)$   $I[1, 1)$  左闭右开

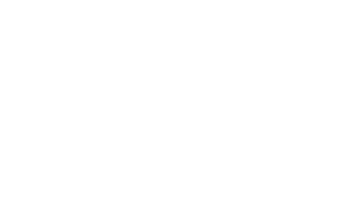
$left = 0$

$right = numsize$

相等为意义

while ( $left < right$ )

$$\{ \quad middle = left + \frac{right - left}{2}$$



if ( $nums[middle] > target$ )

$right = middle$

else if ( $nums[middle] < target$ )

$left = middle + 1$

else return middle;

}

return -1;