

# IEEE SMP 2018

## Assignment 2 -Time Complexity

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### 1.Stacks

top():O(1)

push():O(1)

pop():O(1)

size():O(1)

### 2.Queues

front():O(1)

back():O(1)

push():O(1)

pop():O(1)

size():O(1)

### 3.Vectors

push\_back():O(1)

find():O(n)

size():O(1)

sort():O(nlogn)

erase():O(n)

### 4.Arrays

sort():O(nlogn)

lower\_bound():O(logn)

upper\_bound():O(logn)

next\_permutation():O(n)

prev\_permutation():O(n)

## **5.Pair**

Sort(): $O(n\log n)$

## **6.Priority Queue**

push(): $O(\log n)$

pop(): $O(\log n)$

size(): $O(1)$

## **7.Map**

insert(): $O(\log n)$

find(): $O(\log n)$

## **8.Set**

insert(): $O(\log n)$

erase(): $O(\log n)$

size(): $O(1)$

find(): $O(\log n)$

## **9.Multiset**

insert(): $O(\log n)$

erase(): $O(\log n)$

size(): $O(1)$

## **10.Double-Ended Queue**

push\_front(): $O(1)$

push\_back(): $O(1)$

pop\_front(): $O(1)$

pop\_back(): $O(1)$

size(): $O(1)$

