

### **k-th largest element in stream**

<https://leetcode.com/problems/kth-largest-element-in-a-stream/>

Design a class to find the k-th largest element in a stream. Note that it is the k-th largest element in the sorted order, not the k-th distinct element.

Your KthLargest class will have a constructor which accepts an integer k and an integer array nums, which contains initial elements from the stream. For each call to the method KthLargest.add, return the element representing the k-th largest element in the stream.

#### **Example:**

```
int k = 3;
int[] arr = [4,5,8,2];
KthLargest kthLargest = new KthLargest(3, arr);
kthLargest.add(3); // returns 4
kthLargest.add(5); // returns 5
kthLargest.add(10); // returns 5
kthLargest.add(9); // returns 8
kthLargest.add(4); // returns 8
```

#### **Note:**

You may assume that nums' length  $\geq k - 1$  and  $k \geq 1$ .