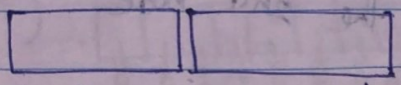
# * Find Median from Data Stream

median → middle element

1, 2, 3, 4, 5 (↑ 3)

1, 2, 3, 4, 5, 6 (↓ 3.5)



maxheap  minheap

add each element to maxheap.
pop from maxheap & push to minheap

If maxheap.size < minheap.size,
pop from minheap & push to maxheap.

If maxheap.size > minheap.size,
odd # of elements. Peek from maxheap.

Else (peek from minheap + peek from maxheap.) / 2

add → O(log n)

findMedian → O(1)

Space → O(n)