

# Randomized Quicksort

Randomized-Quicksort( $A, p, r$ )

$q \leftarrow$  Randomized-Partition( $A, p, r$ );

Randomized-Quicksort( $A, p, q - 1$ );

Randomized-Quicksort( $A, q + 1, r$ );

# What we learnt in this lecture?

- What is **heap**, **max-heap** and **min-heap**?
- **Heapsort** and **Quicksort**.
- What is **expected running time**?

# Lecture 3

## Sorting and Selection