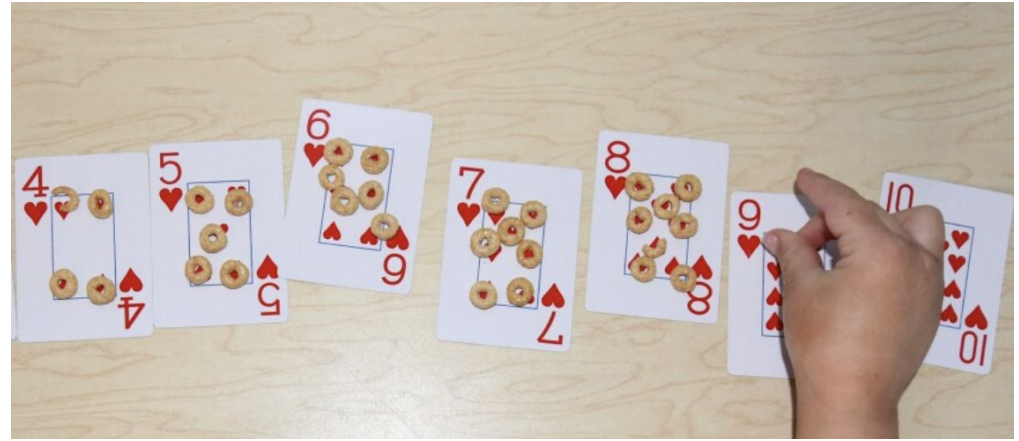
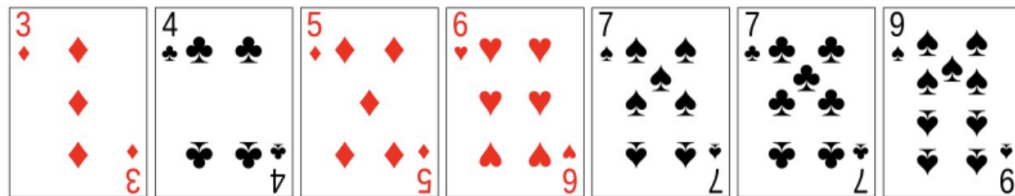


Sorting

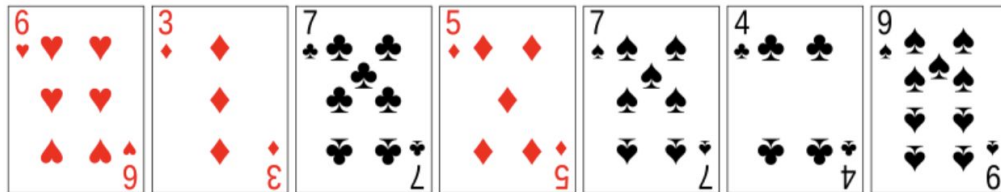


Sorting

After sorting:



Previous:





Sort

- Where can you use sorting
- Why do we need sorting
- What is important for sorting

Space and time complexities!



Sorting in Computer Science

Usually numerical / lexical order

- Definition: A sorting algorithm is an algorithm that puts elements of a list into an **order**.
- Output requirements: Monotonic & Permutation
- Efficient sorting is what we care about (space & time).
- Example: selection sort

	8
	5
	2
	6
	9
	3
	1
	4
	0
	7

Selection sort

Example: [8, 6, 2, 5, 1]

Time complexity: $O(n^2)$

Space complexity: $O(1)$

Corrected the typo!

