"Sorting Problem"

numbers, strings

Have an array w/ a bunch of items

Goal: put them into sorted order

- low → high
- what if you wanted to sort (x,y) coordinates?

Why is this important?

Practically everything needs / can be sorted.

Quadratic - time algorithms $O(n^2)$

→ # of items that you're sorting.

Selection sort — good thing is simplicity.
- bad thing — never get $O(n)$ performance
  - always $O(n^2)$

Bubble sort — Slooooooowwww

Insertion sort — If you're going to use an $O(n^2)$ sort, use this one.