

1. Reading: K. Rosen *Discrete Mathematics and Its Applications*, 8.4
2. The main message of this lecture:

**Sorting provides classical examples of complexity problems. Upper bounds are given by specific sorting algorithms: bubble, merge, etc. Lower bounds are given by a general mathematical argument that shows that no algorithm can possibly do better than a given bound.**

**Definition 36.1. Sorting** is reordering of a given list of elements in increasing order (which is assumed by default).

For the rest of the lecture see slides.

**Homework assignments.** (The first installment due Friday 05/04)

36A:Rosen8.4-4; 36B:Rosen8.4-6b; 36C:Rosen8.4-8a.