

CSci 421
Introduction to Algorithms
Homework Assignment 3
Due: Wednesday, 26 Jan 2000

Winter 2000
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Handout 3
January 23, 2000

Reading Assignment:

Read Chapter 5. Start reading 6, ...

Homework:

1. 3.3.
2. Show that $2^n = o(n!)$. Possibly useful fact: if $0 \leq a(n) \leq b(n)$ and $\lim_{n \rightarrow \infty} b(n) = 0$, then $\lim_{n \rightarrow \infty} a(n) = 0$.
3. 5.10.
4. Given two sorted lists of numbers $x_1 < x_2 < \dots < x_n$ and $y_1 < y_2 < \dots < y_m$, and a number Z , give an algorithm to find the set $\{(i, j) \mid 1 \leq i \leq n; 1 \leq j \leq m \text{ such that } x_i + y_j = Z\}$. Time $O(n + m)$ is possible.