Longest Increasing Subsequence

Using long common subsequence

Can use Longest Common Subsequence by sorting R $O(n \log n)$ and then using LCS(R, sort(R)) in $O(n^2)$.

Faster Solution to LIS

When computing LIS of R[1..k], knowing R[1..k-1] would be useful.

Options:

1. LIS(R[1..k-1]) - not enough
2. Best LIS(R[1..k-1]) - not enough
3. Best IS of sequences 1, 2, 3, …, j (seems like a lot of things to carry)