

# Dynamic Programming

Dynamic programming is an algorithmic design technique that can make it easy to solve problems efficiently.

Dynamic programming is similar to recursion – but it is bottom-up, instead of top-down.

Interesting applications of dynamic programming include:

- ▶ Computing the longest increasing subsequence in a sequence
- ▶ Finding the longest common subsequence of two sequences
- ▶ Finding all-pairs shortest paths in an edge-weighted graph
- ▶ Solving two-player games