**Dynamic Programming**

*Definition:* A method for solving a complex problem by breaking it down into a collection of simpler subproblems, solving each of those subproblems just once, and storing their solutions

*Optimal Structure:* A problem is said to have an optimal structure if an optimal solution can be constructed from optimal solutions of its subproblems

*Overlapping Subproblems:* A problem is said to have overlapping subproblems if it can be broken down into subproblems which are reused several times

*Memoization:* Storing the result of expensive function calls and returning the cached result when the same inputs occur again

*Tabulation:* Strong the result of a previous result in a “table” (usually an array”). Usually done using iteration. Better space complexity can be achieved using tabulation.