

Top-20 Training Program (Dynamic Programming Problems)

Apply the solution building strategies discussed in class to solve following problems.

Group1: Counting 1-D

We have an $n \times 2$ grid to be tiled and we also have with us a supply of rectangular tiles of size 2×1 . Each tile can be rotated and laid horizontally or vertically. How many ways can we tile the $n \times 2$ grid using these tiles?

<https://leetcode.com/problems/climbing-stairs/description/>

<https://leetcode.com/problems/unique-binary-search-trees/description/>

Group2: Counting 2-D

<https://leetcode.com/problems/unique-paths/description/>

<https://leetcode.com/problems/unique-paths-ii/description/>

Group3: Path Sum

<https://leetcode.com/problems/minimum-path-sum/description/>

<https://leetcode.com/problems/triangle/description/>

Group4: Increasing Chains

<https://leetcode.com/problems/longest-increasing-subsequence/description/>

<https://leetcode.com/problems/maximum-length-of-pair-chain/description/>