# Top-20 Training Program
# (Dynamic Programming Problems)

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

### Group1: Counting 1-D

Tiling Grid-I:
https://uva.onlinejudge.org/index.php?option=onlinejudge&page=show_problem&problem=1300
Tiling Grid-II: https://uva.onlinejudge.org/external/109/p10918.pdf
Tiling Dominoes:
https://uva.onlinejudge.org/index.php?option=onlinejudge&page=show_problem&problem=2245

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

Minimum Path Sum in Rectangular Grid: https://leetcode.com/problems/minimum-path-sum/description/
Minimum Path Sum in Triangular Grid:
https://leetcode.com/problems/triangle/description/
WorkOut: http://codeforces.com/contest/429/problem/B

### Group4: Longest Increasing Subsequences

Longest Increasing Subsequence: https://leetcode.com/problems/longest-increasing-subsequence/description/
Russian Doll Envelopes: https://leetcode.com/problems/russian-doll-envelopes/description/
Maximum Pair Chain: https://leetcode.com/problems/maximum-length-of-pair-chain/description/
Number of LISs: https://leetcode.com/problems/number-of-longest-increasing-subsequence/solution/

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Maximum Sum Subarray: http://www.lintcode.com/en/problem/maximum-subarray/
Maximum Product Subarray: https://leetcode.com/problems/maximum-product-subarray/description/