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# 31 DP Problems for Technical Interviews

<https://iamsantoshmishra.notion.site/31-DP-Problems-of-All-Patterns-14a4334636ab4a1daab42b132a69cfd2>

Master these problems to excel in DP questions during your technical interviews.

**Key DP Topics Covered:**

1. Strings
2. Distinct Ways
3. Decision-Making
4. Merging Intervals

**Problem List:**

1. <https://leetcode.com/problems/palindromic-substrings/description>
2. <https://leetcode.com/problems/minimum-ascii-delete-sum-for-two-strings>
3. <https://leetcode.com/problems/shortest-common-supersequence>
4. <https://leetcode.com/problems/longest-common-subsequence>
5. <https://leetcode.com/problems/longest-palindromic-substring>
6. <https://leetcode.com/problems/edit-distance>
7. <https://leetcode.com/problems/distinct-subsequences>
8. <https://leetcode.com/problems/longest-palindromic-subsequence>
9. <https://leetcode.com/problems/best-time-to-buy-and-sell-stock>
10. <https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iii>
11. <https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iv>
12. <https://leetcode.com/problems/house-robber>
13. <https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-cooldown>
14. <https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-transaction-fee>
15. <https://leetcode.com/problems/unique-binary-search-trees>
16. <https://leetcode.com/problems/burst-balloons>
17. <https://leetcode.com/problems/guess-number-higher-or-lower-ii>
18. <https://leetcode.com/problems/remove-boxes>
19. <https://leetcode.com/problems/minimum-cost-to-merge-stones>
20. <https://leetcode.com/problems/minimum-score-triangulation-of-polygon>
21. <https://leetcode.com/problems/minimum-cost-tree-from-leaf-values>
22. <https://leetcode.com/problems/unique-paths>
23. <https://leetcode.com/problems/unique-paths-ii>
24. <https://leetcode.com/problems/climbing-stairs>
25. <https://leetcode.com/problems/combination-sum-iv>
26. <https://leetcode.com/problems/partition-equal-subset-sum>
27. <https://leetcode.com/problems/target-sum>
28. <https://leetcode.com/problems/out-of-boundary-paths>
29. <https://leetcode.com/problems/knight-probability-in-chessboard>
30. <https://leetcode.com/problems/number-of-longest-increasing-subsequence>
31. <https://leetcode.com/problems/domino-and-tromino-tiling>

# Dynamic Programming FOR BEGINNERS

## Longest Increasing Subsequence variants

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

<https://leetcode.com/problems/largest-divisible-subset/>

<https://leetcode.com/problems/russian-doll-envelopes/>

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

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

<https://leetcode.com/problems/delete-and-earn/>

<https://leetcode.com/problems/longest-string-chain/>

## Partition Subset

<https://leetcode.com/problems/partition-equal-subset-sum/>

<https://leetcode.com/problems/last-stone-weight-ii/>

## BitMasking

<https://leetcode.com/problems/partition-to-k-equal-sum-subsets/>

## Longest Common Subsequence Variant

https://leetcode.com/problems/longest-common-subsequence/

https://leetcode.com/problems/edit-distance/

https://leetcode.com/problems/distinct-subsequences/

<https://leetcode.com/problems/minimum-ascii-delete-sum-for-two-strings/>

## Palindrome

➢ https://leetcode.com/problems/palindrome-partitioning-ii/

➢ https://leetcode.com/problems/palindromic-substrings/

## Coin Change variant

➢ https://leetcode.com/problems/coin-change/

➢ https://leetcode.com/problems/coin-change-2/

➢ https://leetcode.com/problems/combination-sum-iv/

➢ https://leetcode.com/problems/perfect-squares/

➢ https://leetcode.com/problems/minimum-cost-for-tickets/

## Matrix multiplication variant

➢ https://leetcode.com/problems/minimum-score-triangulation-of-polygon/

➢ https://leetcode.com/problems/minimum-cost-tree-from-leaf-values/

➢ https://leetcode.com/problems/burst-balloons/pg. 3

## Matrix/2D Array

➢ https://leetcode.com/problems/matrix-block-sum/

➢ https://leetcode.com/problems/range-sum-query-2d-immutable/

➢ https://leetcode.com/problems/dungeon-game/

➢ https://leetcode.com/problems/triangle/

➢ https://leetcode.com/problems/maximal-square/

➢ https://leetcode.com/problems/minimum-falling-path-sum/

## Hash + DP

➢ https://leetcode.com/problems/target-sum/

➢ https://leetcode.com/problems/longest-arithmetic-sequence/

➢ https://leetcode.com/problems/longest-arithmetic-subsequence-of-given-difference/

➢ https://leetcode.com/problems/maximum-product-of-splitted-binary-tree/

## State machine

➢ https://leetcode.com/problems/best-time-to-buy-and-sell-stock/

➢ https://leetcode.com/problems/best-time-to-buy-and-sell-stock-ii/

➢ https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iii/

➢ https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iv/

➢ https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-cooldown/

➢ https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-transaction-fee/pg. 4

## Depth First Search + DP

➢ https://leetcode.com/problems/out-of-boundary-paths/

➢ https://leetcode.com/problems/knight-probability-in-chessboard/

## Minimax DP

➢ https://leetcode.com/problems/predict-the-winner/

➢ https://leetcode.com/problems/stone-game/

## Misc

➢ https://leetcode.com/problems/greatest-sum-divisible-by-three/

➢ https://leetcode.com/problems/decode-ways/

➢ https://leetcode.com/problems/perfect-squares/

➢ https://leetcode.com/problems/count-numbers-with-unique-digits/

➢ https://leetcode.com/problems/longest-turbulent-subarray/

➢ https://leetcode.com/problems/number-of-dice-rolls-with-target-sum/

## Full problem list

<https://leetcode.com/list/x1k8lxi5>

# Dynamic Programming On LeetCode

## **Linear DP Problems**

1. [Climbing Stairs](https://leetcode.com/problems/climbing-stairs/)
2. [Best Time to Buy and Sell Stock](https://leetcode.com/problems/best-time-to-buy-and-sell-stock/)
3. [Min Cost Climbing Stairs](https://leetcode.com/problems/min-cost-climbing-stairs/)
4. [Divisor Game](https://leetcode.com/problems/divisor-game/)
5. [Decode Ways](https://leetcode.com/problems/decode-ways/)
6. [Unique Binary Search Trees](https://leetcode.com/problems/unique-binary-search-trees/)
7. [House Robber](https://leetcode.com/problems/house-robber/)
8. [Perfect Squares](https://leetcode.com/problems/perfect-squares/)
9. [Best Time to Buy and Sell Stock with Cooldown](https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-cooldown/)
10. [Coin Change](https://leetcode.com/problems/coin-change/)
11. [Counting Bits](https://leetcode.com/problems/counting-bits/)
12. [Integer Break](https://leetcode.com/problems/integer-break/)
13. [Count Numbers with Unique Digits](https://leetcode.com/problems/count-numbers-with-unique-digits/)
14. [Wiggle Subsequence](https://leetcode.com/problems/wiggle-subsequence/)
15. [Partition Equal Subset Sum](https://leetcode.com/problems/partition-equal-subset-sum/)
16. [Maximum Length of Pair Chain](https://leetcode.com/problems/maximum-length-of-pair-chain/)
17. [Best Time to Buy and Sell Stock with Transaction Fee](https://leetcode.com/problems/best-time-to-buy-and-sell-stock-with-transaction-fee/)
18. [Delete and Earn](https://leetcode.com/problems/delete-and-earn/)
19. [Domino and Tromino Tiling](https://leetcode.com/problems/domino-and-tromino-tiling/)
20. [Knight Dialer](https://leetcode.com/problems/knight-dialer/)
21. [Minimum Cost for Tickets](https://leetcode.com/problems/minimum-cost-for-tickets/)
22. [Partition Array for Maximum Sum](https://leetcode.com/problems/partition-array-for-maximum-sum/)
23. [Filling Bookcase Shelves](https://leetcode.com/problems/filling-bookcase-shelves/)
24. [Longest Arithmetic Subsequence of Given Difference](https://leetcode.com/problems/longest-arithmetic-subsequence-of-given-difference/)
25. [Greatest Sum Divisible by Three](https://leetcode.com/problems/greatest-sum-divisible-by-three/)
26. [Best Time to Buy and Sell Stock III](https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iii/)
27. [Student Attendance Record II](https://leetcode.com/problems/student-attendance-record-ii/)
28. [Decode Ways II](https://leetcode.com/problems/decode-ways-ii/)
29. [Triples with Bitwise AND Equal to Zero](https://leetcode.com/problems/triples-with-bitwise-and-equal-to-zero/)
30. [Maximum Profit in Job Scheduling](https://leetcode.com/problems/maximum-profit-in-job-scheduling/)
31. [Minimum Number of Taps to Open to Water a Garden](https://leetcode.com/problems/minimum-number-of-taps-to-open-to-water-a-garden/)
32. [Count All Valid Pickup and Delivery Options](https://leetcode.com/problems/count-all-valid-pickup-and-delivery-options/)
33. [Stone Game III](https://leetcode.com/problems/stone-game-iii/)
34. [Restore the Array](https://leetcode.com/problems/restore-the-array/)
35. [Form Largest Integer With Digits That Add Up to Target](https://leetcode.com/problems/form-largest-integer-with-digits-that-add-up-to-target/)
36. [Stone Game IV](https://leetcode.com/problems/stone-game-iv/)
37. [Coin Change II](https://leetcode.com/problems/coin-change-2/)

## **Knapsack Problems**

1. [House Robber II](https://leetcode.com/problems/house-robber-ii/)
2. [Ones and Zeroes](https://leetcode.com/problems/ones-and-zeroes/)
3. [Target Sum](https://leetcode.com/problems/target-sum/)
4. [Shopping Offers](https://leetcode.com/problems/shopping-offers/)
5. [2 Keys Keyboard](https://leetcode.com/problems/2-keys-keyboard/)
6. [Minimum Swaps to Make Sequences Increasing](https://leetcode.com/problems/minimum-swaps-to-make-sequences-increasing/)
7. [Best Team With No Conflicts](https://leetcode.com/problems/best-team-with-no-conflicts/)
8. [Profitable Schemes](https://leetcode.com/problems/profitable-schemes/)
9. [Tallest Billboard](https://leetcode.com/problems/tallest-billboard/)
10. [Pizza With 3n Slices](https://leetcode.com/problems/pizza-with-3n-slices/)
11. [Reducing Dishes](https://leetcode.com/problems/reducing-dishes/)

## **Multi Dimensions DP Problems**

1. [Triangle](https://leetcode.com/problems/triangle/)
2. [Combination Sum IV](https://leetcode.com/problems/combination-sum-iv/)
3. [Out of Boundary Paths](https://leetcode.com/problems/out-of-boundary-paths/)
4. [Knight Probability in Chessboard](https://leetcode.com/problems/knight-probability-in-chessboard/)
5. [Champagne Tower](https://leetcode.com/problems/champagne-tower/)
6. [Largest Sum of Averages](https://leetcode.com/problems/largest-sum-of-averages/)
7. [Minimum Falling Path Sum](https://leetcode.com/problems/minimum-falling-path-sum/)
8. [Video Stitching](https://leetcode.com/problems/video-stitching/)
9. [Longest Arithmetic Subsequence](https://leetcode.com/problems/longest-arithmetic-subsequence/)
10. [Stone Game II](https://leetcode.com/problems/stone-game-ii/)
11. [Number of Dice Rolls With Target Sum](https://leetcode.com/problems/number-of-dice-rolls-with-target-sum/)
12. [Dice Roll Simulation](https://leetcode.com/problems/dice-roll-simulation/)
13. [Number of Sets of K Non-Overlapping Line Segments](https://leetcode.com/problems/number-of-sets-of-k-non-overlapping-line-segments/)
14. [Best Time to Buy and Sell Stock IV](https://leetcode.com/problems/best-time-to-buy-and-sell-stock-iv/)
15. [Create Maximum Number](https://leetcode.com/problems/create-maximum-number/)
16. [Frog Jump](https://leetcode.com/problems/frog-jump/)
17. [Split Array Largest Sum](https://leetcode.com/problems/split-array-largest-sum/)
18. [Freedom Trail](https://leetcode.com/problems/freedom-trail/)
19. [Minimum Number of Refueling Stops](https://leetcode.com/problems/minimum-number-of-refueling-stops/)
20. [Number of Music Playlists](https://leetcode.com/problems/number-of-music-playlists/)
21. [Count Vowels Permutation](https://leetcode.com/problems/count-vowels-permutation/)
22. [Minimum Falling Path Sum II](https://leetcode.com/problems/minimum-falling-path-sum-ii/)
23. [Minimum Distance to Type a Word Using Two Fingers](https://leetcode.com/problems/minimum-distance-to-type-a-word-using-two-fingers/)
24. [Minimum Difficulty of a Job Schedule](https://leetcode.com/problems/minimum-difficulty-of-a-job-schedule/)
25. [Number of Ways to Paint N × 3 Grid](https://leetcode.com/problems/number-of-ways-to-paint-n-3-grid/)
26. [Build Array Where You Can Find the Maximum Exactly K Comparisons](https://leetcode.com/problems/build-array-where-you-can-find-the-maximum-exactly-k-comparisons/)
27. [Number of Ways of Cutting a Pizza](https://leetcode.com/problems/number-of-ways-of-cutting-a-pizza/)
28. [Paint House III](https://leetcode.com/problems/paint-house-iii/)
29. [Count All Possible Routes](https://leetcode.com/problems/count-all-possible-routes/)

## **Interval DP Problems**

1. [Guess Number Higher or Lower II](https://leetcode.com/problems/guess-number-higher-or-lower-ii/)
2. [Arithmetic Slices](https://leetcode.com/problems/arithmetic-slices/)
3. [Predict the Winner](https://leetcode.com/problems/predict-the-winner/)
4. [Palindromic Substrings](https://leetcode.com/problems/palindromic-substrings/)
5. [Stone Game](https://leetcode.com/problems/stone-game/)
6. [Minimum Score Triangulation of Polygon](https://leetcode.com/problems/minimum-score-triangulation-of-polygon/)
7. [Last Stone Weight II](https://leetcode.com/problems/last-stone-weight-ii/)
8. [Minimum Cost Tree From Leaf Values](https://leetcode.com/problems/minimum-cost-tree-from-leaf-values/)
9. [Stone Game VII](https://leetcode.com/problems/stone-game-vii/)
10. [Burst Balloons](https://leetcode.com/problems/burst-balloons/)
11. [Remove Boxes](https://leetcode.com/problems/remove-boxes/)
12. [Strange Printer](https://leetcode.com/problems/strange-printer/)
13. [Valid Permutations for DI Sequence](https://leetcode.com/problems/valid-permutations-for-di-sequence/)
14. [Minimum Cost to Merge Stones](https://leetcode.com/problems/minimum-cost-to-merge-stones/)
15. [Allocate Mailboxes](https://leetcode.com/problems/allocate-mailboxes/)
16. [Minimum Cost to Cut a Stick](https://leetcode.com/problems/minimum-cost-to-cut-a-stick/)
17. [Stone Game V](https://leetcode.com/problems/stone-game-v/)

## **Bit DP Problems**

1. [Can I Win](https://leetcode.com/problems/can-i-win/)
2. [Partition to K Equal Sum Subsets](https://leetcode.com/problems/partition-to-k-equal-sum-subsets/)
3. [Stickers to Spell Word](https://leetcode.com/problems/stickers-to-spell-word/)
4. [Shortest Path Visiting All Nodes](https://leetcode.com/problems/shortest-path-visiting-all-nodes/)
5. [Smallest Sufficient Team](https://leetcode.com/problems/smallest-sufficient-team/)
6. [Maximum Students Taking Exam](https://leetcode.com/problems/maximum-students-taking-exam/)
7. [Number of Ways to Wear Different Hats to Each Other](https://leetcode.com/problems/number-of-ways-to-wear-different-hats-to-each-other/)
8. [Minimum Cost to Connect Two Groups of Points](https://leetcode.com/problems/minimum-cost-to-connect-two-groups-of-points/)
9. [Maximum Number of Achievable Transfer Requests](https://leetcode.com/problems/maximum-number-of-achievable-transfer-requests/)
10. [Distribute Repeating Integers](https://leetcode.com/problems/distribute-repeating-integers/)
11. [Maximize Grid Happiness](https://leetcode.com/problems/maximize-grid-happiness/)
12. [Find Minimum Time to Finish All Jobs](https://leetcode.com/problems/find-minimum-time-to-finish-all-jobs/)

## Digit DP

1. [Non-Negative Integers Without Consecutive Ones](https://leetcode.com/problems/non-negative-integers-without-consecutive-ones/)
2. [Numbers At Most N Given Digit Set](https://leetcode.com/problems/numbers-at-most-n-given-digit-set/)
3. [Numbers With Repeated Digits](https://leetcode.com/problems/numbers-with-repeated-digits/)

## Probability DP

1. [Soup Servings](https://leetcode.com/problems/soup-servings/)
2. [New 21 Game](https://leetcode.com/problems/new-21-game/)
3. [Airplane Seat Assignment Probability](https://leetcode.com/problems/airplane-seat-assignment-probability/)

## DP + Alpha (Tricks/DS)

1. [Arithmetic Slices II - Subsequence](https://leetcode.com/problems/arithmetic-slices-ii-subsequence/)
2. [Odd Even Jump](https://leetcode.com/problems/odd-even-jump/)
3. [Constrained Subsequence Sum](https://leetcode.com/problems/constrained-subsequence-sum/)
4. [Delivering Boxes From Storage to Ports](https://leetcode.com/problems/delivering-boxes-from-storage-to-ports/)

## Classic DP Problem

### Kadane's Algorithm

1. [Maximum Subarray](https://leetcode.com/problems/maximum-subarray/)
2. [Maximum Product Subarray](https://leetcode.com/problems/maximum-product-subarray/)
3. [Bitwise ORs of Subarrays](https://leetcode.com/problems/bitwise-ors-of-subarrays/)
4. [Longest Turbulent Subarray](https://leetcode.com/problems/longest-turbulent-subarray/)
5. [Maximum Subarray Sum with One Deletion](https://leetcode.com/problems/maximum-subarray-sum-with-one-deletion/)
6. [K Concatenation Maximum Sum](https://leetcode.com/problems/k-concatenation-maximum-sum/)
7. [Largest Divisible Subset](https://leetcode.com/problems/largest-divisible-subset/)
8. [Length of Longest Fibonacci Subsequence](https://leetcode.com/problems/length-of-longest-fibonacci-subsequence/)

### LCS (Longest Common Subsequence)

1. [Longest Palindromic Substring](https://leetcode.com/problems/longest-palindromic-substring/)
2. [Longest Palindromic Subsequence](https://leetcode.com/problems/longest-palindromic-subsequence/)
3. [Maximum Length of Repeated Subarray](https://leetcode.com/problems/maximum-length-of-repeated-subarray/)
4. [Longest Common Subsequence](https://leetcode.com/problems/longest-common-subsequence/)
5. [Regular Expression Matching](https://leetcode.com/problems/regular-expression-matching/)
6. [Wildcard Matching](https://leetcode.com/problems/wildcard-matching/)
7. [Edit Distance](https://leetcode.com/problems/edit-distance/)
8. [Interleaving String](https://leetcode.com/problems/interleaving-string/)
9. [Shortest Common Supersequence](https://leetcode.com/problems/shortest-common-supersequence/)
10. [Minimum Insertion Steps to Make a String Palindrome](https://leetcode.com/problems/minimum-insertion-steps-to-make-a-string-palindrome/)
11. [Max Dot Product of Two Subsequences](https://leetcode.com/problems/max-dot-product-of-two-subsequences/)

### LIS (Longest Increasing Subsequence)

1. [Longest Increasing Subsequence](https://leetcode.com/problems/longest-increasing-subsequence/)
2. [Number of Longest Increasing Subsequence](https://leetcode.com/problems/number-of-longest-increasing-subsequence/)
3. [Russian Doll Envelopes](https://leetcode.com/problems/russian-doll-envelopes/)
4. [Delete Columns to Make Sorted III](https://leetcode.com/problems/delete-columns-to-make-sorted-iii/)
5. [Minimum Number of Removals to Make Mountain Array](https://leetcode.com/problems/minimum-number-of-removals-to-make-mountain-array/)
6. [Maximum Height by Stacking Cuboids](https://leetcode.com/problems/maximum-height-by-stacking-cuboids/)
7. [Make Array Strictly Increasing](https://leetcode.com/problems/make-array-strictly-increasing/)

### 2D Grid Traversal

1. [Unique Paths](https://leetcode.com/problems/unique-paths/)
2. [Unique Paths II](https://leetcode.com/problems/unique-paths-ii/)
3. [Minimum Path Sum](https://leetcode.com/problems/minimum-path-sum/)
4. [Maximum Non-Negative Product in a Matrix](https://leetcode.com/problems/maximum-non-negative-product-in-a-matrix/)
5. [Where Will the Ball Fall?](https://leetcode.com/problems/where-will-the-ball-fall/)
6. [Dungeon Game](https://leetcode.com/problems/dungeon-game/)
7. [Cherry Pickup](https://leetcode.com/problems/cherry-pickup/)
8. [Number of Paths With Max Score](https://leetcode.com/problems/number-of-paths-with-max-score/)
9. [Cherry Pickup II](https://leetcode.com/problems/cherry-pickup-ii/)
10. [Kth Smallest Instructions](https://leetcode.com/problems/kth-smallest-instructions/)

### Cumulative Sum

1. [Range Sum Query - Immutable](https://leetcode.com/problems/range-sum-query-immutable/)
2. [Maximal Square](https://leetcode.com/problems/maximal-square/)
3. [Range Sum Query 2D - Immutable](https://leetcode.com/problems/range-sum-query-2d-immutable/)
4. [Largest Plus Sign](https://leetcode.com/problems/largest-plus-sign/)
5. [Push Dominoes](https://leetcode.com/problems/push-dominoes/)
6. [Largest 1-Bordered Square](https://leetcode.com/problems/largest-1-bordered-square/)
7. [Count Square Submatrices with All Ones](https://leetcode.com/problems/count-square-submatrices-with-all-ones/)
8. [Matrix Block Sum](https://leetcode.com/problems/matrix-block-sum/)
9. [Maximum Points You Can Obtain From Cards](https://leetcode.com/problems/maximum-points-you-can-obtain-from-cards/)
10. [Count Submatrices with All Ones](https://leetcode.com/problems/count-submatrices-with-all-ones/)
11. [Ways to Make a Fair Array](https://leetcode.com/problems/ways-to-make-a-fair-array/)
12. [Maximal Rectangle](https://leetcode.com/problems/maximal-rectangle/)
13. [Max Sum of Rectangle No Larger Than K](https://leetcode.com/problems/max-sum-of-rectangle-no-larger-than-k/)
14. [Super Washing Machines](https://leetcode.com/problems/super-washing-machines/)
15. [Maximum Sum of 3 Non-Overlapping Subarrays](https://leetcode.com/problems/maximum-sum-of-3-non-overlapping-subarrays/)
16. [Number of Submatrices That Sum to Target](https://leetcode.com/problems/number-of-submatrices-that-sum-to-target/)
17. [Get the Maximum Score](https://leetcode.com/problems/get-the-maximum-score/)

## DP on Trees

1. [Unique Binary Search Trees II](https://leetcode.com/problems/unique-binary-search-trees-ii/)
2. [House Robber III](https://leetcode.com/problems/house-robber-iii/)
3. [Maximum Product of Split Binary Tree](https://leetcode.com/problems/maximum-product-of-splitted-binary-tree/)
4. [Linked List in Binary Tree](https://leetcode.com/problems/linked-list-in-binary-tree/)
5. [Longest Zigzag Path in a Binary Tree](https://leetcode.com/problems/longest-zigzag-path-in-a-binary-tree/)
6. [Binary Tree Cameras](https://leetcode.com/problems/binary-tree-cameras/)
7. [Maximum Sum BST in Binary Tree](https://leetcode.com/problems/maximum-sum-bst-in-binary-tree/)
8. [Number of Ways to Reorder Array to Get Same BST](https://leetcode.com/problems/number-of-ways-to-reorder-array-to-get-same-bst/)

## String DP

1. [Is Subsequence](https://leetcode.com/problems/is-subsequence/)
2. [Palindrome Partitioning](https://leetcode.com/problems/palindrome-partitioning/)
3. [Palindrome Partitioning II](https://leetcode.com/problems/palindrome-partitioning-ii/)
4. [Word Break](https://leetcode.com/problems/word-break/)
5. [Unique Substrings in Wraparound String](https://leetcode.com/problems/unique-substrings-in-wraparound-string/)
6. [Minimum ASCII Delete Sum for Two Strings](https://leetcode.com/problems/minimum-ascii-delete-sum-for-two-strings/)
7. [Longest String Chain](https://leetcode.com/problems/longest-string-chain/)
8. [Longest Happy String](https://leetcode.com/problems/longest-happy-string/)
9. [Longest Valid Parentheses](https://leetcode.com/problems/longest-valid-parentheses/)
10. [Distinct Subsequences](https://leetcode.com/problems/distinct-subsequences/)
11. [Word Break II](https://leetcode.com/problems/word-break-ii/)
12. [Count the Repetitions](https://leetcode.com/problems/count-the-repetitions/)
13. [Concatenated Words](https://leetcode.com/problems/concatenated-words/)
14. [Count Different Palindromic Subsequences](https://leetcode.com/problems/count-different-palindromic-subsequences/)
15. [Distinct Subsequences II](https://leetcode.com/problems/distinct-subsequences-ii/)
16. [Longest Chunked Palindrome Decomposition](https://leetcode.com/problems/longest-chunked-palindrome-decomposition/)
17. [Palindrome Partitioning III](https://leetcode.com/problems/palindrome-partitioning-iii/)
18. [Find All Good Strings](https://leetcode.com/problems/find-all-good-strings/)
19. [String Compression II](https://leetcode.com/problems/string-compression-ii/)
20. [Number of Ways to Form a Target String Given a Dictionary](https://leetcode.com/problems/number-of-ways-to-form-a-target-string-given-a-dictionary/)

## Memoization

1. [Minimum Jumps to Reach Home](https://leetcode.com/problems/minimum-jumps-to-reach-home/)
2. [Scramble String](https://leetcode.com/problems/scramble-string/)
3. [Tiling a Rectangle with the Fewest Squares](https://leetcode.com/problems/tiling-a-rectangle-with-the-fewest-squares/)
4. [Number of Ways to Stay in the Same Place After Some Steps](https://leetcode.com/problems/number-of-ways-to-stay-in-the-same-place-after-some-steps/)
5. [Jump Game V](https://leetcode.com/problems/jump-game-v/)
6. [Minimum Number of Days to Eat N Oranges](https://leetcode.com/problems/minimum-number-of-days-to-eat-n-oranges/)

## Math

1. [Ugly Number II](https://leetcode.com/problems/ugly-number-ii/)
2. [Count Sorted Vowel Strings](https://leetcode.com/problems/count-sorted-vowel-strings/)
3. [Race Car](https://leetcode.com/problems/race-car/)
4. [Super Egg Drop](https://leetcode.com/problems/super-egg-drop/)
5. [Least Operators to Express Number](https://leetcode.com/problems/least-operators-to-express-number/)
6. [Largest Multiple of Three](https://leetcode.com/problems/largest-multiple-of-three/)
7. [Minimum One Bit Operations to Make Integers Zero](https://leetcode.com/problems/minimum-one-bit-operations-to-make-integers-zero/)