

DYNAMIC PROGRAMING

1. Dynamic Programming | Set 1 (Overlapping Subproblems Property)
2. Dynamic Programming | Set 2 (Optimal Substructure Property)
3. Largest Sum Contiguous Subarray
4. Ugly Numbers
5. Maximum sum such that no two elements are adjacent
6. Maximum size square sub-matrix with all 1s
7. <https://www.geeksforgeeks.org/number-of-unique-bst-with-a-given-key-dynamic-programming/>
8. Total number of possible Binary Search Trees and Binary Trees with n keys
9. Program for Fibonacci numbers
10. Dynamic Programming | Set 3 (Longest Increasing Subsequence)
11. **Dynamic Programming | Set 4 (Longest Common Subsequence)**
12. Dynamic Programming | Set 5 (Edit Distance)
13. Dynamic Programming | Set 6 (Min Cost Path)
14. Minimum number of jumps to reach end
15. **Minimum number of jumps to reach end | Set 2 (O(n) solution)**
16. Dynamic Programming | Set 7 (Coin Change)
17. Dynamic Programming | Set 20 (Maximum Length Chain of Pairs)
18. Dynamic Programming | Set 19 (Word Wrap Problem)
19. Sieve of Eratosthenes
20. Dynamic Programming | Set 18 (Partition problem)
21. Dynamic Programming | Set 17 (Palindrome Partitioning)
22. Dynamic Programming | Set 15 (Longest Bitonic Subsequence)
23. Longest Increasing Subsequence Size (N log N)
24. Dynamic Programming | Set 14 (Maximum Sum Increasing Subsequence)
25. Dynamic Programming | Set 13 (Cutting a Rod)
26. Dynamic Programming | Set 12 (Longest Palindromic Subsequence)
27. Dynamic Programming | Set 11 (Egg Dropping Puzzle)
28. Dynamic Programming | Set 10 (0-1 Knapsack Problem)
29. Dynamic Programming | Set 9 (Binomial Coefficient)
30. Dynamic Programming | Set 8 (Matrix Chain Multiplication)
31. Dynamic Programming | Set 30 (Dice Throw)
32. Dynamic Programming | Set 29 (Longest Common Substring)
33. Dynamic Programming | Set 28 (Minimum insertions to form a palindrome)
34. Dynamic Programming | Set 27 (Maximum sum rectangle in a 2D matrix)
35. Dynamic Programming | Set 26 (Largest Independent Set Problem)
36. Efficient program to print all prime factors of a given numbe
37. Dynamic Programming | Set 25 (Subset Sum Problem)
38. Dynamic Programming | Set 24 (Optimal Binary Search Tree)
39. Program to find amount of water in a given glass
40. Longest Palindromic Substring | Set 1
41. Dynamic Programming | Set 22 (Box Stacking Problem)
42. Dynamic Programming | Set 21 (Variations of LIS)
43. Dynamic Programming | Set 31 (Optimal Strategy for a Game)

44. Dynamic Programming | Set 32 (Word Break Problem)
45. Dynamic Programming | Set 33 (Find if a string is interleaved of two other strings)
46. Dynamic Programming | Set 35 (Longest Arithmetic Progression)
47. Dynamic Programming | Set 36 (Maximum Product Cutting)
48. Count all possible paths from top left to bottom right of a $m \times n$ matrix
49. Remove minimum elements from either side such that $2 * \min$ becomes more than \max
50. Dynamic Programming | Set 37 (Boolean Parenthesization Problem)
51. Count number of binary strings without consecutive 1's
52. Count Possible Decodings of a given Digit Sequence
53. Count ways to reach the n 'th stair
54. Mobile Numeric Keypad Problem
55. Longest Even Length Substring such that Sum of First and Second Half is same
56. Weighted Job Scheduling
57. Find all distinct palindromic sub-strings of a given string
58. How to print maximum number of A's using given four keys
59. Count numbers from 1 to n that have 4 as a digit
60. Minimum steps to reach a destination
61. Find minimum moves to reach target on an infinite line
62. Find minimum number of coins that make a given value
63. Tiling Problem
64. Minimum Initial Points to Reach Destination
65. Count of n digit numbers whose sum of digits equals to given sum
66. Count number of ways to cover a distance
67. Find the longest path in a matrix with given constraints
68. Number of paths with exactly k coins
69. Partition a set into two subsets such that the difference of subset sums is minimum
70. Number of non-negative integral solutions of $a + b + c = n$
71. Non-crossing lines to connect points in a circle
72. Unbounded Knapsack (Repetition of items allowed)
73. Printing brackets in Matrix Chain Multiplication Problem
74. Number of subsequences of the form $a^i b^j c^k$
75. Find maximum possible stolen value from houses
76. Find height of a special binary tree whose leaf nodes are connected
77. Longest Zig-Zag Subsequence
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