

Lab 8

1. Devise an algorithm for the following problem using backtracking.

Knapsack Problem. Given a set $S = \{s_0, s_1, \dots, s_{n-1}\}$ of items, weights $\{w_0, w_1, \dots, w_{n-1}\}$ and values $\{v_0, v_1, \dots, v_{n-1}\}$, a max weight W and a min value V , find all subsets T of S whose total value at least V and total weight is at most W .

2. <https://leetcode.com/problems/permutations/description/>
3. <https://leetcode.com/problems/letter-combinations-of-a-phone-number/description/>